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Meta-humanization enhances positive reactions to prosocial cross-group interaction

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The present research investigated whether learning that an outgroup humanizes the ingroup (i.e., meta-humanization) enhances how people react to intergroup prosocial behaviours and their willingness to engage in intergroup contact. In three experiments conducted in two cultural contexts (Kosovo and North Macedonia; n = 601), we manipulated meta-humanization by informing participants that their ingroup is perceived to be as human as the outgroup by outgroup members. We compare this *meta-humanization* condition with a *meta-dehumanization* condition in which the participant's ingroup is perceived to be less human than the outgroup (Experiments 1 and 3), a *meta-liking* condition in which the participant's ingroup is liked as much as the outgroup (Experiment 2), and a *control* condition (Experiments 1 and 2). Overall, results showed that participants in the meta-humanization condition attributed more empathy and prosocial motives to a potential outgroup helper and were more willing to accept outgroup help and engage in future intergroup contact than participants in the other conditions. In addition, positive perceptions of the outgroup helper mediated the effect of meta-humanization on willingness to accept outgroup help and engage in intergroup contact. We discuss the theoretical and practical implications of these findings for intergroup relations and reconciliation efforts.

Considerable research has shown that positive intergroup contact can improve intergroup relations (Pettigrew & Tropp, 2006, 2008), namely by lowering intergroup anxiety (Page-Gould, Mendoza-Denton, & Tropp, 2008), increasing trust and willingness to engage in future intergroup contact (Gómez, Tropp, & Fernández, 2011; Tropp et al., 2017), and by encouraging positive perceptions and interpretations of outgroup members' behaviours (Vollhardt, 2010). However, research has also revealed that when negative intergroup expectations shape intergroup relations (see Bar-Tal & Rosen, 2009; Judd, Park, Yzerbyt, Gordijn, & Muller, 2005; Mallett, Wilson, & Gilbert, 2008), positive forms of intergroup contact – and even prosocial intergroup behaviour – may not be sufficient to prevent adverse intergroup reactions (Borinca, Falomir-Pichastor, & Andrighetto, 2020a; Halabi, Dovidio, & Nadler, 2016; Tropp, 2015; Wagner & Hewstone, 2012). For instance, people often interpret prosocial intentions and behaviour from an outgroup member negatively (Nadler & Halabi, 2006). People are also less likely to attribute prosocial motives to a potential outgroup helper than a potential ingroup helper,

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particularly among those higher in intergroup prejudice (Borinca, Falomir-Pichastor, Andrighetto, & Halabi, 2020b).

Thus, when antipathy or hostility exists between groups, prosocial behaviour from an outgroup member may not always be welcome or able to improve intergroup relations. Such tendencies emerge when people have strongly negative views of outgroups (Borinca et al., 2020a, 2020b), and they are likely to extend to contexts of intractable conflict, where negative intergroup expectations are shaped and reinforced by societal beliefs, group-based emotions, and episodes of violence between groups (Bar-Tal, 2007a, 2007b). A question, then, is whether there are factors that may encourage group members to accept prosocial efforts from outgroup members in contexts shaped by intergroup antipathy and conflict.

Can meta-humanization attenuate negative perceptions of outgroup prosocial behaviour?

In the present research, we focus on the role that *meta-humanization* may play in this process. Growing from a broader literature on intergroup meta-perceptions concerning people's beliefs about how outgroup members perceive them (Frey & Tropp, 2006; Hewstone, Paolini, Cairns, Voci, & Harwood, 2006), we define *meta-humanization* as people's beliefs that outgroup members perceive them as fully human. We contend that the more people believe that outgroup members perceive them as human (i.e., meta-humanization), the more likely they will see offers of help from the outgroup as being driven by prosocial motives, and the more positively they will feel about future intergroup contact.

Earlier research on intergroup meta-perceptions suggests that they can often negatively impact expectations for future intergroup encounters (see Langholtz & Stout, 2004; Méndez, Gómez, & Tropp, 2007; O'Brien, Leidner, & Tropp, 2018; Vorauer & Kumhyr, 2001; Vorauer, Main, & O'Connell, 1998). On the one hand, people may experience anxiety, discomfort, and feel tempted to avoid intergroup contact (Hewstone et al., 2006; Richeson & Shelton, 2007). On the other hand, people may be likely to suspect ulterior motives or negative intentions from outgroup members (Moy & Ng, 1996; Tropp et al., 2017) and may therefore be more tempted to endorse negative intergroup behaviours and even hostility (Andrighetto, Baldissarri, Lattanzio, Loughnan, & Volpato, 2014; Kamans, Gordijn, Oldenhuis, & Otten, 2009; Owuamalam, Tarrant, Farrow, & Zagefka, 2013). Such trends are likely driven by a desire to reciprocate when one feels that one's group is being devalued or subjected to adverse treatment (Branscombe, Ellemers, Spears, & Doosje, 1999; Hornsey, 2008).

Prior work has shown a similar reciprocity principle in meta-perceptions pertaining to dehumanization, which constitutes an extreme form of devaluation or exclusion from the moral domain and humanity at large (Kelman, 1987; Kirkwood, 2017). Research at an interpersonal level has shown that people dehumanize those who they perceive to dehumanize them (e.g., Bastian & Haslam, 2010, 2011). At the intergroup level, when people perceive that outgroup members dehumanize their own ingroup (i.e., meta-dehumanization), they become motivated to humanize the ingroup (Heywood & Goodman, 2019) and to reciprocally dehumanize and show hostility towards the offending outgroup (Kteily, Hodson, & Bruneau, 2016). Moreover, the effects of meta-dehumanization have been shown to be distinct from the effects of perceiving that outgroup members *dislike* one's ingroup (i.e., meta-prejudice: Kteily et al., 2016). This finding highlights conceptual and empirical distinctions between prejudice and

dehumanization (Andrighetto et al., 2014; Bruneau, Szekeres, Kteily, Tropp, & Kende, 2019; Haslam & Loughnan, 2014; Kteily et al., 2016; Leyens et al., 2000) that might be relevant to envisioning how intergroup liking and humanization may distinctly predict a willingness to accept prosocial gestures from the outgroup.

Nonetheless, research on the potentially beneficial effects of meta-humanization remains scarce. Limited research has shown that participants are more likely to humanize an outgroup when they perceive that this outgroup humanizes them (e.g., Kteily et al., 2016; Studies 1 & 6). Additionally, seeing an outgroup member helping an ingroup member can decrease a tendency to dehumanize the outgroup (Davies, Yogeeswaran, Verkuyten, & Loughnan, 2018). Of particular relevance to the present research, when an outgroup offers genuine apologies for past intergroup misdeeds – which might suggest that the outgroup considers the ingroup as deserving of apologies – ingroup members report more positive responses to an outgroup helper and greater willingness to engage in intergroup contact (Borinca et al., 2020b). To our knowledge, however, no prior research has directly tested how meta-humanization affects people's reactions to intergroup prosocial behaviours, in terms of their perceptions of outgroup members' motives for offering help and their willingness to engage in contact with outgroup members.

The present research

In order to fill these gaps, we conducted three experiments to examine how people interpret prosocial behaviour from an outgroup member and how they feel about engaging in contact with outgroup members, depending on whether they perceive that outgroup members humanize them (i.e., meta-humanization) or not.

Across these experiments, we compared the responses of participants in a meta-humanization condition to those of participants in a meta-dehumanization condition (Experiments 1 and 3), a meta-liking condition (Experiment 2), and/or a control condition (Experiments 1 and 2). Following the experimental manipulations, participants were then asked either to imagine themselves being in a specific predicament in which they might need help (Experiments 1 and 2) or to react to an allegedly real Facebook post by a fellow ingroup member experiencing the same predicament (Experiment 3). In each situation, a stranger of the same sex made an unsolicited, spontaneous offer of help. Across all three experiments, we examined the effects of the experimental manipulations on participants' attributions of prosocial motives to the outgroup helper, their willingness to accept the help offered, and their willingness for future contact with outgroup members.

We expected that participants in the meta-humanization condition would attribute more prosocial motives for the outgroup helper's behaviour, as compared to participants in the control, meta-dehumanization, or meta-liking conditions (H1). We also expected that participants in the meta-humanization condition would be more willing to accept offers of help and engage in future contact with outgroup members than participants in the other conditions (H2). Finally, we expected that attributions of prosocial motives for the outgroup helper's behaviour would mediate the effects of the meta-humanization manipulation on willingness to accept help and engage in future intergroup contact (H3).

EXPERIMENT 1

Experiment 1 was conducted in the post-violent conflict context of Kosovo with Kosovan Albanian participants. In Kosovo, between 1998 and 1999, Serbian forces killed at least 10,000 Kosovan Albanians and forcibly displaced more than 800,000 others. The violent

conflict between Kosovo Albanians and Serbs ended in June 1999 (Voca & Kamberi, 2017). Kosovo declared its independence in 2008 and has received around 115 diplomatic recognitions as an independent state. However, Serbia continues to lobby against Kosovo being recognized as an independent country (see KCSS, 2016; Maloku, Derks, Van Laar, & Ellemers, 2019; Surk, 2019). Thus, the current status of relations between Kosovan Albanians and Kosovan Serbians offers an extremely relevant intergroup context to test our hypotheses.

Method

Participants and procedure

Experiment 1 was designed to provide an initial test of our predictions. Following guidelines put forward by Simmons, Nelson, and Simonsohn (2013), we determined a priori the need to recruit at least 50 participants per experimental condition (see also Nook, Ong, Morelli, Mitchell, & Zaki, 2016). We therefore recruited 210 Kosovan Albanian participants (99 women; M_{age} = 24.46, SD_{age} = 6.22) from a large university campus and various public areas in Kosovo. Participants were asked to complete a questionnaire concerning how people perceive social groups. All participants identified themselves as of Kosovan Albanian descent. After data inspection, we excluded 27 participants from the analyses because they failed the attention check (see below). Thus, our final sample comprised 183 participants (88 females), aged between 18 and 62 years (M_{age} = 24.50, SD_{age} = 7.20). A sensitivity analysis conducted with G*Power (ver. 3.1.9.2; Faul, Erdfelder, Buchner, & Lang, 2009) for a multiple linear regression revealed that our final sample was powered enough to detect an effect size of f^2 = 0.04 (which, by convention, indicates a small effect size; see Faul et al., 2009), assuming an α of .05, and a power estimate of .80.

Experimental manipulations

After providing basic demographic information, each participant was randomly assigned to one of three experimental conditions (*meta-humanization*, *meta-dehumanization*, or *control*), depending on the questionnaire packet they received. Participants in the *control* condition did not receive any supplemental information. Participants in the *meta-humanization* and *meta-dehumanization* conditions read a fictional, but ostensibly real, press release concerning how '*evolved and civilized*' Serbians (outgroup members) perceived Serbians and Kosovan Albanians to be (see Kteily et al., 2016, for similar procedures). Across both conditions, the first paragraph of the press release read as follows:

> How Serbs perceive Serbian and Kosovo Albanian populations!
>
> According to BBC News, a survey conducted recently in Kosovo by a team of researchers from the University of Pristina asked members of the Serbian population to indicate how evolved and civilized they consider Serbians and Albanians to be.

In the *meta-humanization* condition, the press release continued:

> As reported by the BBC, on a scale from 0 to 100 points, Serbians rated Serbians to be highly evolved and civilized (96 out of 100 points). More interestingly, Serbians also rated Albanians to be highly evolved and civilized (96 out of 100 points).

In the *meta-dehumanization* condition, the press release continued:

> As reported by the BBC, on a scale from 0 to 100 points, Serbians rated Serbians to be highly evolved and civilized (96 out of 100 points). More interestingly, Serbians rated Albanians to be much less evolved and civilized (67 out of 100 points).

Dependent measures

In the second part of the questionnaire, participants were asked to imagine themselves in the following predicament in which a Serbian person (outgroup member) offered them help (see Borinca et al., 2019 for similar procedures):

> Imagine that you are in Pristina, and you missed the last bus home. You are worried because this is a big problem for you and the information desk at the bus station is closed. Then, a Serbian person of the same gender as you approaches you because you look very sad, helpless, and distressed. After you explain the situation, he/she offers to give you a ride home.

Participants were then asked to respond to several measures in response to this predicament. Unless otherwise indicated, all responses were provided using 7-point scales ranging from 1 ('not at all') to 7 ('absolutely').

Attributed prosocial motives. Two measures were used to assess the attribution of prosocial motives to the outgroup helper (see Borinca et al., 2020b). First, participants completed a 10-item scale assessing the empathy they attributed to the helper described in the scenario (e.g., 'this person empathizes with my situation'). Second, participants completed six items to assess how they perceived the motives underlying the helper's behaviour (i.e., 'this person offered to help you because: he/she feels a human responsibility to help others'; 'this person offered to help you because: he/she wants something from you' (reversed)). Because both measures captured the overarching construct of (attributed) prosocial motives, for the sake of clarity and simplicity, we computed an average score across these two measures (r = .88; α = .82; M = 4.065, SD = 1.17; for an example see Borinca et al., 2020b; see also Data S1 for separate analyses of the two measures).

Willingness to accept the help offered. In a single item, participants indicated how likely they would be to accept the help offered by the outgroup member if they were actually in the predicament described in the scenario (Borinca et al., 2020b; M = 3.32, SD = 2.12).

Willingness for future intergroup contact. In a single item, participants also indicated whether they would be willing to have future contact with the outgroup (Borinca et al., 2020b); 'In general, are you willing to have contact with Serbian people in the future?'; M = 3.44, SD = 2.09).

Outgroup liking. In addition, participants indicated how they generally feel towards Serbian people (*1 = negative*, *7 = positive*; M = 2.81, SD = 1.77). This measure was included to verify that any effects on the attribution of prosocial motives, willingness to

accept help, and willingness for future intergroup contact could be attributed to the experimental manipulations of meta-humanization, and were independent of any effects of outgroup liking.

Attention and manipulation checks. We included three items to check whether participants correctly identified the ethnicity and gender of the helper described in the scenario, as well as the city in which the scenario took place. Also, as a check for the experimental manipulation, we adapted a 5-item measure from Kteily et al. (2016) to assess the extent to which participants perceived that Serbians humanize Kosovan Albanians ('Serbians perceive Albanians to be sub-human'; 'Serbians think of Albanians as animal-like'). We reverse-scored and averaged the responses to these items in order to compute a score of perceived meta-humanization ($\alpha = .90$; $M = 3.84$, $SD = 1.56$).

Results

To analyse our results, we used dummy coding in regression (see Hayes & Montoya, 2017). Dummy coding in regression analyses with a multi-categorical indicator allows for testing the effect of each category against a pre-assigned reference group. The meta-humanization condition was used as the reference group to contrast the effects of the meta-dehumanization and control conditions on the manipulation check and dependent variables. We also conducted comparisons between the control and meta-dehumanization conditions.[1]

Manipulation check

With respect to our manipulation check, participants reported greater perceived meta-humanization in the meta-humanization condition ($M = 4.54$, $SD = 1.52$) than did participants in the meta-dehumanization condition ($M = 3.14$, $SD = 1.41$), ($b = -1.40$, $SE = 0.26$, $p < .001$, $CI_{95\%} = -1.91, -0.88$) or in the control condition, ($M = 3.87$, $SD = 1.43$), ($b = -0.67$, $SE = 0.26$, $p = .013$, $CI_{95\%} = -1.20, -0.14$). Mean scores and standard deviations for all dependent measures for all experiments are provided by condition in Table 1, and correlations among the dependent measures for all experiments are provided in Table 2.

Attributed prosocial motives

Participants attributed more prosocial motives to the helper in the meta-humanization condition than in the meta-dehumanization condition ($b = -0.88$, $SE = 0.20$, $p < .001$, $CI_{95\%} = -1.27.48, -0.48$) or in the control condition ($b = -0.56$, $SE = 0.20$, $p = .007$, $CI_{95\%} = -0.96, -0.15$).

[1] *In line with earlier findings (Borinca et al., 2020b), we did not expect any significant differences in participants' responses across the meta-dehumanization and control conditions, given that negative intergroup perceptions and expectations generally characterize relations between Kosovan Albanians and Serbians. In Experiment 1, participants in the control condition reported greater* perceived meta-humanization *than participants in the meta-dehumanization condition (*b = *−0.73,* SE = *0.26,* p = *.006, CI95% = −1.251, −0.21). There were no significant differences between participants in the meta-dehumanization and control conditions on* attributed prosocial motives *(*b = *−0.32,* SE = *0.20,* p = *.114, CI95% = −0.72, 0.78),* willingness to accept help *(*b = *−0.61,* SE = *0.37,* p = *.107, CI95% = −1.36, 0.13),* willingness for intergroup contact *(*b = *−0.30,* SE = *0.38,* p = *.422, CI 95% = −1.05, 0.44), or* outgroup liking *(*b = *−0.15,* SE = *0.31,* p = *.622, CI95% = −0.78, 0.47).*

Table 1. Means (standard deviations in parentheses) for prosocial motives, acceptance of outgroup help, willingness for intergroup contact, and outgroup liking (Experiments 1, 2 & 3)

Experiment 1 (N = 183)	Meta-humanization	Control	Meta-dehumanization
Prosocial motives	4.55 (1.13)	3.99 (0.98)	3.66 (1.21)
Help acceptance	3.80 (2.23)	3.40 (2.21)	2.78 (1.82)
Intergroup contact	3.80 (2.20)	3.41 (2.01)	3.11 (2.02)
Outgroup liking	3.26 (1.99)	2.67 (1.78)	2.52 (1.45)
Experiment 2 (N = 127)	**Meta-humanization**	**Control**	**Meta-liking**
Prosocial motives	4.78 (0.84)	3.80 (0.95)	4.15 (0.78)
Help acceptance	4.66 (2.01)	2.82 (1.51)	3.53 (1.80)
Intergroup contact	4.91 (1.87)	3.13 (1.69)	3.74 (1.92
Outgroup liking	4.16 (1.81)	2.43 (1.25)	3.15 (1.64)
Experiment 3 (N = 291)	**Meta-humanization**		**Meta-dehumanization**
Prosocial motives	4.95 (0.95)		3.15(1.05)
Help acceptance	4.99(1.62)		3.29(1.93)
Intergroup contact	4.98(1.67)		3.08(2.03)
Outgroup liking	4.95(1.64)		2.97(1.98)

Table 2. Correlations among dependent variables (Experiments 1, 2, & 3)

	Prosocial motives	Help acceptance	Intergroup contact	Outgroup liking
Experiment 1				
Prosocial motives	–			
Help acceptance	.466	–		
Intergroup contact	.555	.578	–	
Outgroup liking	.506	.484	.606	–
Experiment 2				
Prosocial motives	–			
Help acceptance	.573	–		
Intergroup contact	.589	.551	–	
Outgroup liking	.544	.561	.628	–
Experiment 3				
Prosocial motives	–			
Help acceptance	.601	–		
Intergroup contact	.664	.866	–	
Outgroup liking	.630	.843	.863	–

Note. Correlation is significant at the 0.01 level (2-tailed).

Willingness to accept help

Participants reported greater willingness to accept help from the outgroup member in the meta-humanization condition than in the meta-dehumanization condition ($b = -1.02$, $SE = 0.37$, $p = .007$, $CI_{95\%} = -1.76, 0.28$). Although participants reported being slightly more willing to accept help in the meta-humanization condition than in the control condition, the difference in mean scores across these conditions did not reach conventional levels of statistical significance ($b = -0.40$, $SE = 0.38$, $p = .291$, $CI_{95\%} = -1.16, 0.35$).

Willingness for intergroup contact

Participants' reported willingness to have future contact with outgroup members did not significantly differ between the meta-humanization and meta-dehumanization conditions ($b = -0.69, SE = 0.37, p = .064, CI_{95\%} = -1.43, 0.42$), or between the meta-humanization and control conditions ($b = -0.38, SE = 0.38, p = .310, CI_{95\%} = -1.14, 0.36$) conditions.

Outgroup liking

Participants reported greater liking of the outgroup as a whole in the meta-humanization condition than in the meta-dehumanization condition ($b = -0.74$, $SE = 0.31$, $p = .018$, $CI_{95\%} = -1.36, -0.12$). Although participants reported somewhat greater liking of the outgroup in the meta-humanization condition than in the control condition, the difference in mean scores across these conditions did not reach conventional levels of statistical significance ($b = -0.59$, $SE = 0.32$, $p = .068$, $CI_{95\%} = -1.22, 0.44$).

Mediation analyses

In order to test H3, we ran parallel mediation analyses to check whether effects of the experimental manipulation (meta-humanization vs. meta-dehumanization vs. control) predicted the two key dependent measures (willingness to accept outgroup help and willingness to engage in future intergroup contact), through the possible mechanisms of prosocial motives attributed to the outgroup, and liking of the outgroup. These parallel mediation analyses were conducted using PROCESS for SPSS (Model 4; Hayes, 2018; 5'000 bootstrapped samples), and they allowed us to test whether prosocial motives attributed to the outgroup could account for the effect of meta-humanization on willingness to accept outgroup help and willingness to engage in future intergroup contact, even when controlling for participants' positive feelings towards the outgroup. Process dummy coding indicated that X1 would test the effect of the meta-humanization versus control conditions on these two dependent variables, and X2 would test the effect of the meta-humanization versus meta-dehumanization conditions on these two dependent variables.

Regarding willingness to accept outgroup help, results showed a significant indirect effect of X1 through attributed prosocial motives, $B = -0.21$ (bootstrapped SE = .09), $CI_{95\%}$ [−0.58, −0.07], but not through outgroup liking, $B = -0.11$ (bootstrapped SE = .07), $CI_{95\%}$ [−0.27, 0.11]. Most importantly, results also showed a significant indirect effect of X2 through attributed prosocial motives, $B = .45$ (bootstrapped SE = .15), $CI_{95\%}$ [0.17, 0.79], even when controlling for outgroup liking, $B = .30$ (bootstrapped SE = .14), $CI_{95\%}$ [0.04, 0.61] (see Figure 1).

Regarding willingness for future intergroup contact, results showed a significant indirect effect of X1 through attributed prosocial motives, $B = -.018$ (bootstrapped SE = .06), $CI_{95\%}$ [−0.32, −0.07], but not through outgroup liking, $B = -0.11$ (bootstrapped SE = .05), $CI_{95\%}$ [−0.22, −0.01]. More importantly, and in line with findings reported directly above, results showed a significant indirect effect of X2 through attributed prosocial motives, $B = .55$ (bootstrapped SE = .16), $CI_{95\%}$ [0.25, 0.92], even when controlling for outgroup liking, $B = .38$ (bootstrapped SE = .16), $CI_{95\%\ 0}$[0.07, 0.74][2].

[2] *We also performed supplemental mediation analyses to the effect of meta-dehumanization versus control conditions (X3) on the two key dependent measures; findings from these analyses showed no significant indirect effects.*

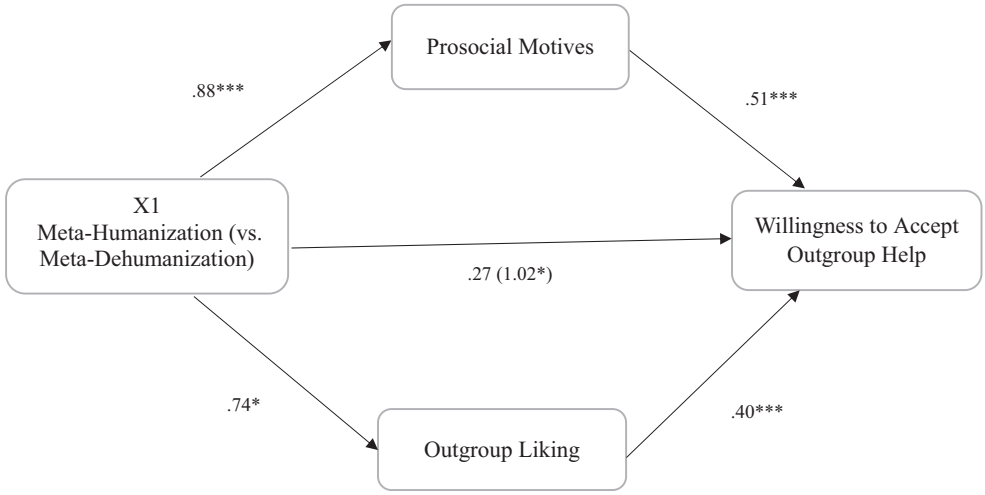

Figure 1. Standardized regression weights and indirect effects for the parallel mediation analysis testing the effect of X2 (meta-humanization vs. meta-dehumanization) on willingness to accept outgroup help (Experiment 1). Total effect presented in parentheses. $^{**}p < .01$, $^{***}p < .001$.

Discussion

Experiment 1 showed that participants attributed more prosocial motives to an outgroup helper in the meta-humanization condition than in the other two experimental conditions, lending support for H1. They were also more willing to accept help offered by an outgroup member in the meta-humanization condition than in the meta-dehumanization condition, providing partial support for H2, though there were no significant differences in willingness to accept outgroup help between the meta-dehumanization and control conditions. We did not observe the expected differences across conditions in participants' willingness for future intergroup contact. However, in line with H3, mediation analyses showed significant indirect effects of both X1 and X2 on willingness to accept outgroup help and willingness to engage in future intergroup contact through attributed prosocial motives, even when controlling for outgroup liking.

Put differently, while there were no significant mean differences in willingness for intergroup contact between participants in the meta-humanization and meta-dehumanization conditions, the indirect effect of meta-humanization on willingness for intergroup contact was statistically significant as hypothesized. This pattern of results might be due to a suppression effect, presumably because we controlled for outgroup liking in the mediation analysis. This analysis also showed that participants' attribution of prosocial motives to an outgroup helper mediated the effect of meta-humanization on participants' willingness to accept outgroup help and their willingness for future contact with outgroup members, even when taking into account their reported liking of the outgroup. This pattern emerged specifically when comparing the effects of the meta-humanization condition to those observed in the meta-dehumanization condition. In short, comparing effects of the meta-humanization and meta-dehumanization conditions indicates that meta-humanization triggers both greater attribution of prosocial motives to outgroup members and greater liking of outgroup members, and that – as expected – the attribution of prosocial motives to outgroup members is independently linked to key outcomes. These findings are consistent with past work showing the importance of meta-

perceptions in intergroup contexts beyond the effects of intergroup attitudes (Kteily et al., 2016).

EXPERIMENT 2

Experiment 1 provided initial evidence that attributed prosocial motives and outgroup liking play distinct roles in predicting willingness to accept outgroup help and willingness for future intergroup contact. Nonetheless, given prior research by Kteily et al. (2016) showing important distinctions between meta-dehumanization and prejudice towards the outgroup, in Experiment 2 we aimed to test more directly distinctions between meta-humanization and liking of the outgroup (i.e., meta-liking). Recognizing an outgroup's humanity represents an important factor for achieving reconciliation in intractable contexts (Bar-Tal, 2000). Yet perceiving that one (or one's group) is liked by the outgroup can also foster positive intergroup attitudes (see Bergsieker, Shelton, & Richeson, 2010; Pittinsky, Rosenthal, & Montoya, 2011; Tropp & Bianchi, 2006). Therefore, Experiment 2 sought to test whether meta-humanization uniquely predicts willingness to accept outgroup help and willingness to engage in future intergroup contact, beyond the role of perceived liking by the outgroup. In line with theorizing from Kteily et al. (2016; see also Livingstone, Fernández Rodríguez, & Rothers, 2019), we predicted that meta-humanization would uniquely and positively shape participants' interpretations of outgroup prosocial behaviour, thereby corresponding with greater willingness to accept outgroup help and to engage in future contact with the outgroup.

Method

Participants and procedure

As in Experiment 1, we recruited Kosovan Albanian participants (n = 165, 82 females: M_{age} = 27.07, SD_{age} = 7.40) again from a large university campus and various public areas in Kosovo. Participants were asked to complete a questionnaire concerning how people perceive social groups. All participants identified themselves as Kosovan Albanian descent and were randomly assigned to one of three experimental conditions (meta-humanization vs. meta-liking vs. control). After excluding 38 participants who failed the attention check, our final sample comprised 127 participants (62 females), aged between 18 and 50 years (M_{age} = 26.93, SD_{age} = 7.45). A sensitivity analysis similar to the one used in Experiment 1 revealed that our final sample was sufficiently powered to detect an effect size of $f^2 = 0.06$.

Experimental manipulations

As in Experiment 1, participants provided basic demographic information and were randomly assigned to one of three experimental conditions. Manipulations used in the control and meta-humanization conditions were identical to those used in Experiment 1. In the new meta-liking condition, participants read a comparable fictitious, but ostensibly real, press release in which Serbian people expressed similar levels of liking for both Serbs and Kosovan Albanians. This section of the article read as follows:

> How Serbs perceive Serbian and Kosovo Albanian populations!

> As reported by the BBC, on a scale from 0 to 100 points, Serbians rated liking Serbians very much (96 out of 100 points). More interestingly, Serbians also rated liking Albanians very much (96 out of 100 points).

Dependent measures

Following these procedures, participants were asked to imagine being in the same predicament and to respond to the same dependent variables and manipulation checks used in Experiment 1. Specifically, we measured attributed prosocial motives ($\alpha = .91$; $M = 4.29$, $SD = 1.17$), as well as willingness to accept help offered by the outgroup member ($M = 3.70$, $SD = 1.93$), willingness for future intergroup contact ($M = 3.95$, $SD = 1.97$), and outgroup liking ($M = 3.15$, $SD = 1.64$).

In addition, we included two checks for the experimental manipulation. First, we retained two items from Kteily's et al. (2016) meta-humanization scale: '*Serbians consider Albanians to belong to a lower form of civilization*' and '*Serbians think Albanians are beasts*' (both reverse-scored; $\alpha = .84$; $M = 3.51$, $SD = 1.85$). Second, we added two items to assess meta-liking: '*Serbians do not like Albanians at all*' and '*Serbians consider Albanians unlikable*' (both reverse-scored; $\alpha = .79$; $M = 3.66$, $SD = 1.76$).

Results

We used dummy coding in regression analyses to test our predictions, as in Experiment 1. The meta-humanization condition was used as the reference group to contrast the effect of meta-liking and the control conditions on manipulation checks and dependent variables. We also conducted comparisons between the control and meta-liking conditions.[3]

Manipulation checks

Participants in the meta-humanization condition perceived somewhat similar levels of meta-humanization ($M = 4.22$, $SD = 1.79$) to those in the meta-liking condition ($M = 3.81$, $SD = 1.66$), ($b = -0.42$, $SE = 0.36$, $p = .245$, $CI_{95\%} = -1.14, 0.29$), but they perceived significantly greater meta-humanization than participants in the control condition ($M = 2.38$, $SD = 1.61$), ($b = -1.85$, $SE = 0.37$, $p < .001$, $CI_{95\%} = -2.58, -1.11$). Similarly, participants in the meta-humanization condition reported similar levels of meta-liking ($M = 4.14$, $SD = 1.75$) to participants in the meta-liking condition ($M = 4.13$, $SD = 1.53$), ($b = -0.008$, $SE = 0.35$, $p = .981$, $CI_{95\%} = -0.70, 0.68$), but they perceived significantly greater meta-liking than participants in the control condition ($M = 2.63, SD = 1.60$), ($b = -1.51, SE = 0.37, p < .001, CI_{95\%} = -2.21, -0.80$). Overall, the correlation between scores on the two manipulation check measures was quite high, $r = .84, p < .001$.

[3] *In Experiment 2, participants in the meta-liking condition reported greater levels of meta-humanization than participants in the control condition (*b = *1.42,* SE = *0.37,* p < *.001, CI_{95}% = 0.68, 2.16). Also, participants in the meta-liking condition reported that the outgroup liked them more than participants in the control condition (*b = *1.50,* SE = *0.35,* p < *.001, CI_{95}% = 0.79, 2.21). There were no significant differences between participants in the meta-liking and control conditions on* attributed prosocial motives *(*b = *0.37,* SE = *0.23,* p = *.106, CI_{95}% = −0.08, 0.83),* outgroup liking *(*b = *0.36,* SE = *0.32,* p = *.262, CI_{95}% = −0.27, 1.00),* willingness to accept outgroup help *(*b = *0.71,* SE = *0.39,* p = *.075, CI_{95}% = −0.07, 1.49), or* willingness for intergroup contact *(*b = *0.61,* SE = *0.40,* p = *.128, CI_{95}% = −0.18, 1.42).*

Attributed prosocial motives

Nonetheless, participants attributed more prosocial motives to the outgroup helper in the meta-humanization condition than in the meta-liking condition ($b = -0.89$, $SE = 0.22$, $p < .001$, $CI_{95}\% = -1.34, -0.44$) or in the control condition ($b = -1.27$, $SE = 0.23$, $p < .001$, $CI_{95}\% = -1.72, -0.81$).

Willingness to accept help

Participants in the meta-humanization condition also reported greater willingness to accept help from the outgroup member than participants in the meta-liking condition ($b = -1.12$, $SE = 0.38$, $p = .004$, $CI_{95}\% = -1.88, -0.36$) or in the control condition ($b = -1.83$, $SE = 0.39$, $p < .001$, $CI_{95}\% = -2.61, -1.05$).

Willingness for future intergroup contact

Participants in the meta-humanization condition reported greater willingness to have future contact with outgroup members than participants in the meta-liking condition ($b = -1.16$, $SE = 0.39$, $p = .004$, $CI_{95\%} = -1.94, -0.38$) or in the control condition ($b = -1.78$, $SE = 0.40$, $p < .001$, $CI_{95\%} = -2.58, -0.98$).

Outgroup liking

Participants in the meta-humanization condition reported greater liking of the outgroup as a whole than participants in the meta-liking condition ($b = -1.36$, $SE = 0.31$, $p < .001$, $CI_{95\%} = -1.96, -0.74$) or in the control condition ($b = -1.78$, $SE = 0.32$, $p < .001$, $CI_{95\%} = -2.37, -1.09$).

Mediation analyses

As in Experiment 1, we ran parallel mediation analyses to test whether effects of the experimental manipulation (meta-humanization vs. meta-liking vs. control) predicted the key dependent measures (willingness to accept outgroup help and willingness to engage in future intergroup contact), through the possible mechanisms of prosocial motives attributed to the outgroup, and liking of the outgroup (H3). Process dummy coding indicated that X1 would test the effect of meta-humanization versus control conditions on the two key dependent variables, and X2 would test the effect of meta-humanization versus meta-liking on these two dependent variables.

Regarding willingness to accept outgroup help, results showed a significant indirect effect of X1 through attributed prosocial motives, $B = -.74$ (bootstrapped SE = .21), $CI_{95\%}$ [−1.19, −0.36], even when controlling for outgroup liking, $B = -.08$ (bootstrapped SE = .27), $CI_{95\%}$ [−1.28, −0.21]. Most importantly, and paralleling findings from Experiment 1, results showed a significant indirect effect of X2 through attributed prosocial motives, $B = -.52$ (bootstrapped SE = .18), $CI_{95\%}$ [−0.93, −0.21], even when controlling for outgroup liking, $B = -.54$ (bootstrapped SE = .23), $CI_{95\%}$ [−1.05, −0.15].

Regarding willingness for future intergroup contact, results showed a significant indirect effect of X1 through prosocial motives, $B = -.73$ (bootstrapped SE = .26), $CI_{95\%}$ [−1.34, −0.28], even when controlling for outgroup liking, $B = -.08$ (bootstrapped SE = .25), $CI_{95\%}$ [−1.40, −0.44]. Most importantly, and once again in line with findings from Experiment 1, results show a significant indirect effect of X2 through attributed

prosocial motives, $B = -.51$ (bootstrapped SE = .19), $CI_{95\%}$ [−0.94, −0.18], even when controlling for outgroup liking, $B = -.70$ (bootstrapped SE = .21), $CI_{95\%}$ [−1.15, −0.31][4].

Discussion

Experiment 2 replicated and extended the findings observed in Experiment 1. Participants attributed more prosocial motives to the outgroup helper and were more willing to accept outgroup help and engage in future intergroup contact in the meta-humanization condition than in the other two experimental conditions, lending support for H1 and H2. Furthermore, and in line with H3, their attributed prosocial motives mediated the effect of meta-humanization on willingness to accept outgroup help and to engage in future intergroup contact, beyond the effect of outgroup liking.

By comparing the effects of meta-humanization and meta-liking conditions, findings from Experiment 2 suggest that feeling humanized by the outgroup, rather than merely being evaluated positively by the outgroup, increases not only positive feelings towards the outgroup as a whole (outgroup liking) but also increases how much people attribute prosocial motives to potential outgroup helpers. It is worth noting that these findings have been observed in Kosovo, an intergroup context marked by legacies of violent intergroup conflict. If such effects can be observed in a context profoundly affected by intergroup conflict, it seems plausible that similar effects might be observed in intergroup contexts that have not been embroiled in violent conflict.

EXPERIMENT 3

Experiment 3 was conducted in the new intergroup context of North Macedonia in order to test for replication of these findings. Relations between people in the formerly known Republic of Macedonia and Greece have faced some unique challenges. Greeks took issue with referring to the country as the Republic of Macedonia, creating a conflict that has roots deeply rooted in history and identity, which has given rise to the possibility of contemporary and even future destabilization throughout South-East Europe (Marolov, 2013). After 27 years of hostile disagreement, the two countries reached a resolution in 2019 that Macedonia would be referred to as North Macedonia, and this name would be used bilaterally and internationally. Nonetheless, many people in North Macedonia remain dissatisfied and condemn this resolution (e.g., Gjukovikj, 2018; Marusic, 2019).

Along with this change in intergroup context, Experiment 3 also included some changes in research procedures to minimize any possibility that the effects we observe might be due to demand characteristics or chance. First, participants learned at the beginning of the study that they would be informed of the results of two studies carried out by international research teams. We explained that the first study examined how Greeks perceive other national groups, including Macedonians, and that the second study investigated social media stories involving Macedonians and Greeks. Regarding the second study, participants learned that the researchers were examining various social media posts in the Macedonian context and that they would be presented with a Facebook post from a Macedonian person identified by these researchers. Participants were

[4] *We also performed supplemental mediation analyses to test the effects of the meta-liking versus control conditions (X3) on the two key dependent measures; findings from these analyses showed no significant indirect effects..*

reminded that these were two different research studies, but since they dealt with similar issues, they would be informed about the results of both studies.

Second, we sought to extend our research by presenting a more realistic situation to participants (see Borinca et al., 2020a, Experiment 4, for similar procedures). Specifically, instead of asking Macedonian participants to imagine themselves in a specific predicament, we asked them to respond to an allegedly real situation presented as a Facebook post in which a Macedonian ingroup member (adapted to the gender of the participant) described being in a predicament, and a Greek outgroup person offered help. Thus, Experiment 3 examined Macedonians' responses to a predicament where a Macedonian is offered help by a Greek outgroup member. Participants indicated their responses by filling out a questionnaire anonymously online, rather than by completing a paper-and-pencil questionnaire in the presence of an experimenter, thereby reducing the possibility of dependency effects and social desirability concerns.

Method

Participants and procedures

Experiment 3 was pre-registered. North Macedonian citizens were recruited via social media (i.e., established Facebook groups). A priori analysis conducted with G*Power (e.g., Faul et al., 2009) for an ANOVA with two groups based on a small effect size of $f = .15$, $\alpha = .05$, and a power estimate of .80, indicated that 351 participants would be required for this study. In total, 356 participants completed the online questionnaire and were randomly assigned to one of two experimental conditions: either a meta-humanization condition or a meta-dehumanization condition. Ultimately, we had to exclude data from 62 participants who failed the manipulation check and 3 who did not give consent to use their data. Thus, the final sample included 291 participants (150 females; $M_{age} = 35.40$, $SD_{age} = 4.89$). A sensitivity analysis conducted with G*Power (ver. 3.1.9.2; Faul et al., 2009) for a linear regression revealed that, assuming an α of .05, and a power estimate of .80, our final sample was sufficiently powered to detect an effect size of $f^2 = 0.02$ (which, by convention, indicates a small effect size; see Faul et al., 2009).

Experimental manipulations

As in the previous experiments, participants first provided basic demographic information and then were randomly assigned to one of the experimental conditions (meta-humanization or meta-dehumanization). Manipulations used in the meta-humanization and meta-dehumanization conditions were identical to those used in Experiment 1, but they were represented as empirical research findings. In both conditions, participants read a brief excerpt from a scientific article describing that, on a scale from 0 to 100 points, Greeks always rated Greeks as highly developed and civilized (96 out of 100 points); then, depending on the experimental condition, participants were randomly assigned to learn either that Greeks rated Macedonians equally evolved and civilized (meta-humanization condition) or that Greeks rated Macedonians as less evolved and civilized (67 out of 100; meta-dehumanization condition).

After responding to the manipulation checks (see below), participants were then briefed about the focus of the second study. Through an ostensibly real Facebook post identified in this study, participants learned about a Macedonian ingroup member's experience of a predicament. The Macedonian ingroup member (always adapted to match the participant's gender) described how he/she had planned a short visit in Skopje and

missed the last bus. Then, a Greek outgroup member offered them help (a ride home). The Facebook post contained the name and surname of the Macedonian ingroup member in need, as well as an image, timing of the post, and options for liking, sharing and commenting on the post. For instance, in the female participant version the post content was as follows (see also Borinca et al., 2020a):

> Hi my friends. Today I was in Skopje for a short visit and unfortunately, I missed the last bus to go home back and the desk information was closed! I was worried and felt like I am in a big problem. Then a Greek woman approached me because I looked unfortunate, helpless and distressed. After I explained to her my situation then she offered to give me a ride home.

Dependent measures

Following these procedures, participants were asked to respond to the same dependent measures and attention checks used in the previous experiments. Specifically, we measured attributions of prosocial motives (α = .93 M = 4.06, SD = 1.46), willingness to accept help offered by the outgroup member (M = 4.16, SD = 1.99), willingness for future intergroup contact (M = 4.02, SD = 2.08), and outgroup liking (M = 3.95, SD = 2.07).

As a check for the experimental manipulation, we adapted the 5-item measure from Kteily et al. (2016) used in Experiment 1. We reverse-scored and averaged the responses to these items to compute a score of perceived meta-humanization (α = .95; M = 4.04, SD = 1.86).

Results

Once again, we used dummy coding in regression analyses to test our predictions. Here, we compared effects of the meta-humanization condition (coded as 0) to effects of meta-dehumanization condition (coded as 1) on the manipulation check and all dependent measures. As noted previously, mean scores and standard deviations for all dependent measures are provided by condition in Table 1; correlations among the dependent measures are provided in Table 2.

Manipulation check

Regarding the manipulation check, participants perceived greater meta-humanization in the meta-humanization condition (M = 4.90, SD = 1.59) than did participants in the meta-dehumanization condition (M = 3.12, SD = 1.68), (b = −1.78, SE = 0.19, p < .001, $CI_{95\%}$ = −2.15, −1.40).

Attributed prosocial motives

Participants attributed more prosocial motives to the outgroup helper in the meta-humanization condition than in the meta-dehumanization condition (b = −1.80, SE = 0.11, p < .001, $CI_{95\%}$ = −2.03, −1.57).

Willingness to accept the help offered

Participants reported greater willingness to accept help from the outgroup member in the meta-humanization condition than in the meta-dehumanization condition (b = −1.70, SE = 0.21, p < .001, $CI_{95\%}$ = −2.12, −1.29).

Willingness for future intergroup contact

Participants reported greater willingness to have contact with outgroup members in the meta-humanization condition than in the meta-dehumanization condition ($b = -1.89$, $SE = 0.21$, $p < .001$, $CI_{95\%} = -2.32, -1.46$).

Outgroup liking

Participants reported greater liking of the outgroup as a whole in the meta-humanization condition than in the meta-dehumanization condition ($b = -1.98$, $SE = 0.21$, $p < .001$, $CI_{95\%} = -2.40, -1.56$).

Mediation analyses

We ran the same mediation model as in the previous experiments to test whether effects of the experimental manipulation (meta-humanization versus meta-dehumanization) predicted the key dependent measures (willingness to accept outgroup help and willingness to engage in future intergroup contact), through the possible mechanisms of prosocial motives attributed to the outgroup, and liking of the outgroup. Regarding willingness to accept outgroup help, results showed a significant indirect effect of the experimental manipulation through attributed prosocial motives, $B = -0.35$ (bootstrapped SE = .13), $CI_{95\%}$ [−0.6, −0.09], even when controlling for outgroup liking, $B = -1.46$ (bootstrapped SE = .15), $CI_{95\%}$ [−1.73, −1.18]. Similarly, regarding willingness for intergroup contact, results showed a significant indirect effect of the experimental manipulation through attributed prosocial motives, $B = -.65$ (bootstrapped SE = .15), $CI_{95\%}$ [−0.97, −0.38], even when controlling for outgroup liking, $B = -1.48$ (bootstrapped SE = .15), $CI_{95\%}$ [−1.79, −1.17].

Discussion

Experiment 3 replicated and extended our findings within a different intergroup context (i.e., North Macedonia). North Macedonian citizens made greater attributions to prosocial motives and were more willing to engage in current and future contact with Greek outgroup members when they were led to believe that Greeks humanized them, as compared to when they were led to believe that Greeks dehumanized them. Similar to the findings observed in Experiments 1 and 2, these patterns of findings lend support for H1 and H2. Moreover, in line with the previous experiments, Experiment 3 also showed that the effect of meta-humanization on willingness to accept outgroup help and have contact with the outgroup is mediated by prosocial motives attributed to an outgroup helper, even when controlling for outgroup liking (providing support for H3).

This experiment provided further support for our hypotheses using a more realistic paradigm in which participants reacted to an alleged situation rather than being asked to imagine themselves in that situation. We also observed the same pattern of findings using an anonymous online questionnaire rather than the experimenter-administered paper-and-pencil method used in the previous experiments, suggesting that participants' responses to the issue being investigated across experiments is unlikely to be attributable to demand characteristics or response bias.

In addition, it is worth noting that there were strong correlations between the proposed mediators and dependent variables in this final experiment. Thus, we cannot

rule out alternative causal links between the factors investigated, and further research is required in order to provide more cogent evidence in this regard.

GENERAL DISCUSSION

The current research investigated whether learning that an outgroup member humanizes one's ingroup (i.e., meta-humanization) enhances people's attribution of prosocial motives to a potential outgroup helper and whether this effect extends to positive intentions for future intergroup behaviour, such as fostering greater willingness to accept outgroup help and willingness to engage in intergroup contact.

Across three experiments in two national contexts (Kosovo and North Macedonia), we observed that participants attributed more prosocial motives and showed greater willingness to accept outgroup help and engage in intergroup contact in the meta-humanization condition than in any of the other experimental conditions (meta-dehumanization, meta-liking, and control). Furthermore, the prosocial motives attributed to the outgroup helper mediated the effect of meta-humanization on willingness to accept help and have future intergroup contact. These patterns of effects appeared to function independently of participants' perceptions of being liked by the outgroup (i.e., meta-liking condition, manipulated in Experiment 2) and participants' own liking of the outgroup (i.e., outgroup liking, assessed in all experiments).

As such, these findings usefully extend prior research on expectations for prosociality in intergroup settings. Recent studies have shown that people often attribute less prosocial motives to an outgroup helper than to an ingroup helper; this effect appears to be due largely to strong negative expectations associated with outgroup members (Borinca et al., 2020b; Tarrant, Dazeley, & Cottom, 2009) and as a function of the perceived inability of the outgroup to provide the needed help (Borinca et al., 2020a). Our research extends these findings by showing that meta-humanization can break down negative intergroup expectations, which may subsequently help people better understand outgroup help and motivate them to engage in positive intergroup interactions (see also Deegan, Hehman, Gaertner, & Dovidio, 2015).

Second, the present findings may be of relevance for future research on intergroup contact (Allport, 1954; Brown & Hewstone, 2005; Pettigrew, Tropp, Wagner, & Christ, 2011; White et al., 2020), because it increases our understanding of the conditions that may facilitate positive cross-group interactions. Indeed, the present findings suggest that prosocial offers of help from the outgroup coupled with perceived meta-humanization may help to alleviate people's more customarily negative expectations for intergroup relations. Previous research has shown that entrenched negative intergroup expectations lead people to anticipate ulterior motives, preventing them from viewing prosocial actions and intentions from the outgroup in a positive light (Borinca et al., 2019; Halabi et al., 2016; Tropp et al., 2017). Instead, the present research shows that meta-humanization can enhance the attribution of prosocial motives to an outgroup helper and that these attributed motives mediate the effect of meta-humanization on behavioural intentions in intergroup contexts – both in terms of willingness to accept help from an individual outgroup member, or becoming more open to future intergroup contact at a more general level.

Finally, this research also specifies the psychological processes activated by meta-humanization, as compared to perceptions of intergroup liking. Whereas the manipulation of meta-humanization contributed to increasing the attribution of prosocial motives to a potential outgroup helper and greater willingness to accept outgroup help and engage

in future intergroup contact, the manipulation of meta-liking did not result in the same outcomes (see Experiment 2). Thus, perceiving that one's group is liked by an outgroup does not seem to be sufficient to attribute prosocial motives on the part of outgroup members and particularly when intergroup relations have been strained by antipathy, hostility, or violent conflict. Although meta-humanization also increased participants' liking of the outgroup, the predicted indirect effect of meta-humanization on willingness to accept outgroup help and engage in intergroup contact through the pathway of attributing prosocial motives to the outgroup helper remained significant even when considering outgroup liking as a parallel mediator.

Thus, in line with past research (Kteily et al., 2016; Pittinsky et al., 2011; Tropp & Bianchi, 2006), both (de-)humanization and (dis)liking are relevant and unique predictors of positive intergroup behavioural intentions. The present findings extend this body of research by showing that there is something unique about being perceived as human by the outgroup that predicts people's willingness to accept outgroup help and engage in contact with that outgroup. This is consistent with previous research showing that being recognized in terms of human values predicted better outcomes for intergroup relations, including trust and forgiveness, which appeared beyond the effect of feeling liked by the outgroup (Livingstone et al., 2019). These patterns of findings are also consistent with qualitative research suggesting that being part of the human category is very important, because it can encourage people to see that there are still genuine people among members of outgroups (Heywood & Goodman, 2019).

Future research can build on this contribution and address the limitations of our experiments. First, while we obtained these findings by using a *mental simulation* similar to the imagined contact paradigm or *an alleged real situation* similar to vicarious contact studies (see Borinca et al., 2020a; White et al., 2020), future research should try to replicate and extend previous findings by using different types of contact (e.g., extended contact, e-contact; Paolini, Hewstone, Cairns, & Voci, 2004; White, Turner, Verrelli, Harvey, & Hanna, 2019). These processes should also be investigated in future research using laboratory-based paradigms that would allow for a greater focus on actual behavioural measures rather than measures of behavioural intentions.

Second, whereas this research has focused on the consequences of feeling dehumanized by others in terms of being evolved and civilized, future research could consider whether similar effects arise when using other operational definitions of dehumanization, such as those based on the experience or lack of human emotions (e.g., infrahumanization, mechanistic humanization). Research has shown that meta-dehumanization on emotional dimensions has been linked to adverse interpersonal outcomes, such as feeling insecure about maintaining close relationships (Sainz, Martínez, Moya, Rodríguez-Bailón, & Vaes, 2020). Correspondingly, it may be worthwhile to examine such effects at the intergroup level and in the context of cross-group interactions.

Third, it is also worth noting that the prospective recipients of help in our experiments were all members of the majority group (Kosovo Albanians in Kosovo, Macedonians in North Macedonia). Although we might expect to obtain similar findings with recipients of help belonging to minority groups (see Borinca et al., 2020a; Halabi, Nadler, & Dovidio, 2011), future studies should compare the perspectives of majority versus minority recipients of help within the same experimental design. As a fourth point, our experimental manipulation of meta-dehumanization uses a graphical description of the 'Ascent of Man', depicting humans' physiological and cultural evolution (see Kteily, Bruneau, Waytz, & Cotterill, 2015; Kteily et al., 2016), which may have been somewhat demanding for the participants. Relatedly, we also observed that the standard deviations

for most dependent measures were fairly large, suggesting that individual scores were fairly spread out rather than being generally close to the mean. A plausible explanation for this could be that the experimental manipulations had a strong effect on participants' responses by triggering them to use extreme scores on the scoring scale; given the deviations from the mean are then squared to predict variance in the dependent measures, extreme scores may have inadvertently been given more weight in data analysis. Future research might therefore try to replicate and extend the present findings by manipulating meta-humanization and meta-dehumanization without any graphical description or by identifying new, less demanding ways to capture these variables.

Conclusion

Across three experiments, the present research showed that being informed that an outgroup humanizes one's own group can have significant positive consequences for intergroup relations. Regardless of whether negative intergroup expectations originated from legacies of violent conflict or antipathies due to group-based disputes, perceiving that outgroup members perceive one's group as human can enhance one's willingness to attribute prosocial motives to an outgroup member and to accept that outgroup member's offer of help, while also fostering more positive intergroup attitudes and a greater willingness to have contact with outgroup members in general. Thus, meta-humanization plays an important role in nurturing positive interpretations of outgroup prosocial behaviour, both in terms of shaping people's perceptions of and responses to outgroup help in cross-group interactions and encouraging positive responses to behaviour intentions at the intergroup level.

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Author contributions

Islam Borinca, Phd student (Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing) Linda R. Tropp (Conceptualization; Methodology; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing) Nana Ofosu (Conceptualization; Methodology; Validation; Visualization; Writing – original draft; Writing – review & editing).

Conflict of interest

All authors declare no conflict of interest.

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Supporting Information

The following supporting information may be found in the online edition of the article:

Data S1. Separate analyses on empathy, altruistic and instrumental motives.