Normative Beliefs for Older Adults and Volunteering Intentions

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Abstract

Introduction: The idea that older adults should contribute to the common good has become a social normative belief (i.e., social activation). Younger and – even more so – older adults prescribe social activation to the group of older adults. Older adults are assumed to behave in line with what is socially expected of them. However, previous studies did not establish a link between the old-age norm of social activation and older adults' social engagement. Following the reasoning of stereotype embodiment theory, we investigated the role of self-endorsement of social activation for older adults' social engagement (i.e., formal volunteering). Method: We conducted two preregistered experiments in which older participants (60 – 90 years, N = 1,463) reflected on agreeing or disagreeing with the norm of social activation. We then assessed endorsement of social activation and intention to engage in formal volunteering. Results: Replicating our previous studies, participants who reflected on agreement with the norm of social activation reported higher endorsement of this norm compared to participants who reflected on disagreement. Endorsing the norm of social activation for (other) older adults translated into endorsing social activation for oneself (internalization). Furthermore, reflecting on agreement with social activation was indirectly related to volunteering intention via endorsement of self-related social activation (embodiment). Conclusion: Our findings elucidate the role of societal normative beliefs for older adults' behavior and offer insights into the discourse on the continued social participation of older adults.

Keywords: ageism, prescriptive views of aging, active aging, volunteering

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Introduction

Older adults today are faced with societal prescriptive norms entailing the idea that they should contribute to the common good [1, 2, 3, 4]. These norms have arisen as older adults' continued societal contribution supposedly provides relief for a welfare system that is challenged by demographic changes leading to cutbacks and retrenchment [5, 6]. Being engaged in social activities has also been portrayed as desirable for older adults as it could provide them with meaning in life as well as health and psychological benefits [7, 8]. These prescriptions can also be problematic as they set normative standards for older adults' behavior, which may not match older adults' resources and abilities, or their concept of life in old age [5, 6, 9, 10]. Whether prescriptive norms of social activation affect older adults' life and behavior, however, is difficult to judge because no link between the norm of social activation and older adults' behavior (or their intention to engage in social activities, such as formal volunteering) has been established [11]. If and how older adults (behaviorally) adjust to prescriptions of continued social contribution might depend on how much older adults endorse the idea that they should be socially active. Specifically, reasoning from Stereotype Embodiment Theory (SET, [12]), stereotypes and normative beliefs most likely affect behavior if they are self-endorsed and have been incorporated into the representation of the self (internalization). To elucidate the role of endorsing the norm of social activation for older adults' social engagement, we manipulated endorsement of social activation in two studies. We asked older participants to provide reasons for agreeing or disagreeing with this old-age norm and tested whether this influenced participants' endorsement of social activation and their intention to engage in formal volunteering (embodiment).

Internalization and Embodiment

One process through which the societal prescriptive norm of social activation might affect older adults' willingness to become socially engaged is internalization [13]. How we see older adults and ourselves as aging adults is influenced by representations of older adults in the media, personal experiences with older adults, and our aging process, as well as exposure to age-related stereotypes [14]. Expectations and interpretations of aging experiences already develop at a relatively young age and become entrenched by the time one reaches young adulthood [15]. Thus, culturally shared ideas of what older adults are and how they should be, permeate individual perceptions of older adults. During young adulthood, when these beliefs are not directed at oneself, their content and valuation usually remain unquestioned [12, 16]. When growing older, adults increasingly interpret and evaluate their experiences as being "age-related" and the (mostly negative) connotations of aging become increasingly incorporated into the representation of the self (internalization, [16]). While individuals transition into late adulthood, these representations become self-relevant and individuals

start applying them to themselves and supposedly act accordingly (embodiment, [12]). Similarly, reasoning from social identity theory one could argue that a high identification with the group of older adults increases the internalization of group norms. This can lead to an embodiment of the group's typical attitudes and behaviors [17]. Internalization and embodiment have lasting effects on self-evaluations as they provide the background that shapes expectations and interpretations of experiences individuals have as they grow older [14].

Although research on societal prescriptive norms targeting older adults also known as prescriptive views of aging (PVoA), is a recent phenomenon [2, 3, 9, 11], it consistently shows that PVoA represent societal views [18]. Research suggests negative consequences for those older adults who do not adhere to PVoA. Portraying older adults as violators (e.g., because they use scarce socially shared resources) leads to a more negative evaluation, less interest in interaction, and allocation of fewer resources [9, 19]. Despite these potentially negative consequences of PVoA, younger and – even more so – older adults prescribe social activation to the group of older adults [1, 2, 4, 18, 20]. Attesting to the idea of internalization of social activation, our previous work has shown that individuals 50+ endorse the idea that they should be socially engaged [4]. However, whether the internalization of social activation is related to older adults' intention to be socially active (embodiment) remains an unanswered question. Elucidating this relation would help to understand the mechanism via which PVoA translate into behavior. Uncovering whether this link exists will also be informative for initiatives promoting social participation among older adults.

Overview of the Current Research

The present experiments investigated whether the endorsement of social activation leads to the formation of behavioral intentions and efforts to embrace a socially active lifestyle. Investigating this relation will provide us with insights into whether older adjust their behavioral intentions in line with societal prescriptive norms. Building on our previous work [4], we manipulated the endorsement of social activation via reflection processes. Experimentally manipulating norm endorsement allows strong causal inferences regarding the effects of norm endorsement on social engagement, since influences of confounding variables are eliminated by random assignment to experimental conditions. In an argument generation task (AGT), participants were randomly assigned to provide arguments for agreeing or disagreeing with the norm of social activation. Our previous work [4] showed that providing arguments for (dis)agreeing with the norm of social activation for older adults led to (lower) higher endorsement of this norm, respectively. Extending our previous work, we related participants' endorsement of social activation to their future intention to volunteer, statistically controlling for participants' current level of adherence to the norm. In two experiments using a highly similar design, we investigated the following hypotheses:

Hypothesis 1: Assimilation effect for endorsement of social activation targeting (other) older adults: We expect a match between arguing for social activation and its later endorsement. The group reflecting on agreement with this norm should report higher endorsement of social activation for (other) older adults than the group that reflected on disagreement.

Hypothesis 2: Internalization of the assimilation effect: Arguing in favor of the norm of social activation for (other) older adults should lead to higher endorsement of social activation for oneself compared to the group arguing against the norm. Relatedly, we also explored whether the effect of our manipulation on self-endorsement of social activation was mediated via the endorsement of other-related social activation. An indirect effect of our manipulation via other-related social activation would be an additional indicator of internalization.

Hypothesis 3: Assimilation effect for volunteering intention: We expected a match between arguing for social activation and intention to volunteer. The group arguing for social activation should report higher volunteering intention than the group arguing against the norm. To explore whether internalization is involved in older adults' volunteering intention, we tested if the effect of our manipulation on volunteering intention was mediated via the endorsement of self-related social activation. An indirect effect of our manipulation on volunteering intention via self-related social activation would be an indicator of embodiment.

The hypotheses were tested in two experiments including young-old and old-old German participants. As previous studies provided mixed evidence for age-related differences in the endorsement of PVoA [1, 2, 9, 19] we do not make specific predictions regarding age group differences.

Experiment 1

Method

Participants

The initial sample comprised 689 adults (60 – 90 years, 49.4% women) who were German native speakers. We excluded 40 participants due to careless responding[1] such as no variance in the dependent variables. Running the analyses with the initial sample does not change the main results. Table 1 displays background information of included and excluded participants. An a priori power analysis for a one-sided t-test for two independent groups conducted with G*Power 3 [21] indicated

[1] Participants were excluded when (a) there was no variance in ratings of adherence to social activation, (b) there was no variance in ratings of the endorsement of social activation, (c) the completion of the questionnaire took more than one hour, or (d) responses in the AGT task consisted of random digits. These response patterns raise doubts about the validity of the manipulation or the PVoA ratings.

a minimum of 620 participants to discover a small effect (d = .20, [4]). Participants received monetary compensation and were recruited via bilendi[2] aiming for a sample stratified by gender and age group.

Design

Experiment 1 had a 2 (AGT-group: agreement vs. disagreement) x 2 (target of assessed norm: others vs. self) mixed design. AGT-group varied between- and target within-subjects. Participants were randomly assigned to AGT-groups.

Measures

Social Activation

How much participants adhered to social activation before being subjected to the AGT manipulation was assessed with three items ("I am engaged in helping other people or contributing to the common good"; "I contribute to society voluntarily after reaching retirement age"; "I still care about public affairs").[3] For each item, participants indicated their agreement on a 5-point Likert scale ranging from 1 ("Do not agree") to 5 ("Strongly agree"). Reliability for the three items was good, α = .76, CI [.72 - .79].

To assess endorsement of social activation for (other) older adults and for oneself as an older adult, we used 3 items of the PVoA scale [4]. We only used the items assessing agreement with social activation (e.g., "In my personal opinion, older adults should do more for other people or the common good."). For each item, participants indicated their endorsement on a 5-point Likert scale ranging from 1 ("Do not agree") to 5 ("Strongly agree"). Reliability was good, α = .78, CI [.75 - .81] for items assessing the norm of social activation for (other) older adults, and α = .84, CI [.81 - .86] for items assessing the norm for oneself as an older adult.

Volunteering and Volunteering Intentions

To assess current engagement in volunteer activities, participants were presented with a list of 12 domains (e.g., sports, culture, church), with the possibility to add volunteering domains that were not listed (i.e., "other"). This list was adapted from the Interdisciplinary Longitudinal Study on Adult

[2] Bilendi (bilendi.de) is a marketing research company with access to 300,000 panelists in Germany. The company was used for recruiting only, sending out mail invitations containing the study link to the panelists who matched our demographic criteria (age 60+, equal number of male and female participants per age group and no participation in our previous studies reported in Wirth et al., 2023). The survey itself was hosted on socisurvey.de.

[3] Items were tested and refined in one pilot study (N = 78) with German native speakers, aged 50 to 73 years. More details are provided in the online supplemental material at https://osf.io/z4atd.

Development and Aging [22]. Participants indicated whether they were actively engaged in this domain, planned to become active, or neither. To assess changes in volunteering intention, we asked participants whether they intended to change the frequency of their volunteering. Participants indicated their intention to change volunteering frequency on a 5-point Likert scale ranging from 1 ("Decrease a lot") to 5 ("Increase a lot").[4]

Materials

For the AGT, participants were presented with two opposing statements on the norm of social activation [4]. The statement on the left indicated disagreement with the norm ("Older adults should live life on their own terms and enjoy that they no longer have any social obligations.") and the statement on the right indicated agreement ("Older adults should be involved in social activities so that they can continue to make an important contribution to the common good in old age.").

Procedure

Participants completed the study online on a personal computer. After providing written informed consent, they answered demographic questions, responded to adherence to social activation questions, completed the AGT, then the items assessing endorsement of social activation, and provided information about their current volunteering status and their intention to change volunteering frequency. All questionnaire items were presented until a response was given. The experiment lasted about 20 minutes.

For the AGT task, participants were presented with two statements that contained different ideas about how older adults should behave. They should read these statements carefully as the questionnaire would return to these on the following pages. To ascertain that participants read the statements, participants could not proceed with the questionnaire for 15 seconds. Both statements were presented before argument generation to highlight that there are different, opposing opinions on the topic of social activation targeting older adults. This should also help clarify the meaning of the statements.

Subsequently, participants were presented with the same two statements and were prompted to provide arguments for the statement highlighted in bold. Participants were randomly assigned to provide arguments for either the statement favoring or disapproving of adherence to social activation. They should provide reasons and arguments (ideally at least two) that spoke in favor of

[4] We also tested whether our results for intention to change volunteering frequency depended on the volunteering status of participants (i.e., active vs. planning to become active vs. neither). In an ANCOVA with AGT group (agreement vs. disagreement) and volunteering status, controlling for adherence to social activation, we found no effect of AGT group or volunteering status nor an interaction between both, ps > .07.

the highlighted statement. Participants typed their responses into an empty box below the statements. Afterward, participants completed the social activation items with items relating to (other) older adults ("In my opinion, older adults should…"), first. On the next page, items targeting participants as older adults ("As an older adult, I should…") were presented. Lastly, participants were told that the following questions related to volunteering as helping others or promoting a specific cause without pay. For each of the 12 volunteering domains, participants indicated whether they were already active, planned to become active, or neither. On the same page, participants indicated whether they intended to change their volunteering frequency.

Analytic Strategy

To test H1, we conducted an ANCOVA with AGT (disagreement vs. agreement) as between-group factor and adherence to social activation as a covariate. Endorsement of social activation for older adults in general served as dependent variable (DV).

For H2, we conducted an ANCOVA with AGT as a between-group factor, target (other- vs. self-related) as a within-group factor, and adherence to social activation as a covariate. Endorsement of social activation targeting older adults in general and oneself as older adult served as DV. To explore internalization effects further, we conducted a mediation analysis with AGT-group as a predictor, other-related social activation as a mediator, self-related social activation as an outcome, and controlled for adherence to social activation.

To test H3, we conducted the same ANCOVA as for H1, with intention to change volunteering frequency as DV. To explore embodiment, we conducted a mediation analysis with AGT-group as a predictor, endorsement of self-related social activation as a mediator, intention to change volunteering frequency as DV, and controlled for adherence to social activation. We also explored moderating effects of age groups, that is young-old (60-70 years old) versus old-old adults (71+ years old), for this mediation analysis.

Analyses were conducted using R version 4.4.1 and mediation analyses were run using the PROCESS macro version 4.3, model 4 [23], with bias-corrected 95% CI around the indirect effect from 10,000 bootstrap re-samples.

Results

Descriptive Results

325 participants were assigned to the AGT-agreement group and 324 to the AGT-disagreement group. There were no differences in adherence to social activation between the agreement (M = 2.81, SD = 1.00) and disagreement group (M = 2.91, SD = 1.01), $t(646.92) = -1.270$, $p = .205$. Table S1 (supplemental material) provides an overview of volunteer activities for each AGT-group. There were

no differences in the number of participants who volunteered, planned to volunteer, and who did not plan to volunteer across AGT-groups, $\chi^2(2) = 1.662$, $p = .436$.

Means, standard deviations (SDs), and correlations for the main study variables can be found in Table 2. Social activation indicators were, moderately to highly positively correlated with each other. Intention to change volunteering frequency and indicators of social activation had low positive, but significant correlations. Age had low positive, but significant correlations with indicators of social activation. Age and intention to change volunteering frequency were not significantly related.

Main Results

As can be seen in Figure 1a, there was a significant main effect of AGT on endorsing the norm of social activation, $F(1, 646) = 22.33$, $p < .001$, $\eta_p^2 = .03$, attesting to an assimilation effect. As can be seen in Figure 1b, the assimilation effect was also found for self-related social activation items, $F(1, 646) = 18.22$, $p < .001$, $\eta_p^2 = .03$, supporting the idea of internalization. There was no main target effect (others vs. self), $F(1, 646) = 2.09$, $p = .149$, nor an interaction between AGT and target, $F(1, 646) = 2.47$, $p = .117$. For volunteering intention, there was no difference between the disagreement ($M_{adj} = 3.11$, $SE_{adj} = 0.03$) and agreement ($M_{adj} = 3.11$, $SE_{adj} = 0.03$) groups, $F(1, 646) = 0.008$, $p = .929$.

Mediation Analyses

As depicted in Figure 2a, there was a significant indirect effect of our AGT manipulation on endorsement of self-related social activation via other-related social activation. This indicates an internalization of the other-related norm to views of oneself as an older adult. As shown in Figure 2b, there was a significant indirect effect of the AGT manipulation on volunteering intention through the endorsement of self-related social activation, which is in line with the idea of embodiment. Results concerning the moderating effect of age group can be seen in Figure S1a (supplemental material). These moderating effects were not significant, indicating that age group did not affect embodiment.

Discussion

Replicating previous findings [4], the results showed that endorsement of social activation can be modified by generating arguments. Arguing for (vs. against) social activation for other older adults also affected endorsement of the norm for oneself as an older adult in a similar way, attesting to internalization of societal prescriptive norms to personalized beliefs. The internalization hypothesis was further corroborated by our mediation analysis. Besides, in line with the idea of internalization, our correlation results indicated considerable overlap between endorsement of other- and self-related social activation. This supports the idea that normative beliefs directed at older adults provide orientation regarding one's life in old age and what behavior is seen as appropriate for oneself as an older person [9, 24].

Regarding the effect of our manipulation on intentions to volunteer, the mediation analysis provided support for the embodiment hypothesis by showing an indirect effect of the AGT on intentions to change volunteering frequency via personal endorsement of the norms. Albeit significant, this indirect effect was comparatively small. One reason could be the assessment of volunteering intention as a relative measure compared to participants' current level of volunteering. While this relative assessment might capture motivation for behavioral change, given that about half of our participants already reported being engaged in volunteering, they were probably more likely to state that they did not want to change their level of volunteering, regardless of arguing for or against social activation. In line with this idea, our measure of intention to change volunteering frequency indicated that on average, participants did not want to change their volunteering frequency.

Experiment 2 was conducted as a follow-up study to replicate and extend the findings of the first experiment. In Experiment 1, the assessment of volunteering intention took place after the assessment of norm endorsement. However, one could reason that presenting the intention measures directly after the manipulation might strengthen its effect. Thus, we investigated whether the order of the assessment of volunteering intention and endorsement of social activation influences the strength of the assimilation effect. Given that volunteering has become a highly individualized activity that must have a high biographical fit [25], we personalized our intention measures. To channel thinking about volunteering in a specific direction, participants were asked to select a volunteering domain (e.g., sports, church, culture) they were most interested in and indicated their volunteering intentions for this domain. Additionally, instead of using a relative intention measure to assess changes in comparison to current levels of volunteering, we implemented absolute measures of participants' volunteering intentions.

Experiment 2

Method

Participants

The initial sample comprised 774 adults (60 – 90 years, 49.4% women) who were German native speakers. We excluded 49 participants due to careless responding[1]. Running the analyses with the initial sample does not change the main results. Table 3 displays background information on included and excluded participants. Two a priori power analyses for repeated measures ANOVAs indicated a minimum of 328 participants to discover a small effect (f = .10, [4]) for each of the different presentation orders (INTENTION first vs. PVoAS first) of the experiment. Participants received monetary compensation and were recruited via bilendi[2] aiming for a sample stratified by gender and age group.

Design

Experiment 2 had a 2 (AGT-group: disagreement vs. agreement) x 2 presentation order (INTENTION first vs. PVoAS first) x 2 (target of assessed norm: others vs. self) mixed design. AGT-group and presentation order varied between- and target varied within-subjects. Participants were randomly assigned to AGT-groups.

Measures

Social Activation

Adherence to and endorsement of social activation were assessed as in Experiment 1. Reliability was good for adherence to social activation, $\alpha = .79$, CI [.76 - .81], as well as for endorsing the norm of social activation for (other) older adults, $\alpha = .78$, CI [.75 - .81], and for oneself as an older adult, $\alpha = .84$, CI [.81 - .86].

Volunteering and Volunteering Intentions

Volunteering was assessed by asking participants how often they had volunteered in the last 12 months. Response options ranged from “never” to “several times per week”. We used four items to assess volunteering intentions. The first asked how likely participants were to volunteer in a self-selected area of volunteering (e.g., sports, church, culture, adapted from [26]). Participants rated the likelihood of volunteering in the selected area on a 5-point Likert scale ranging from 1 (“Very unlikely”) to 5 (“Very likely”). Additionally, participants indicated their agreement with three statements targeting the selected area (“I am determined to volunteer in area xx.”, “I plan to volunteer in area xx.”, “I would like to volunteer in area xx.”) on a 5-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Responses to all four items were averaged and used as an indicator of volunteering intentions. Reliability was excellent, $\alpha = .97$, CI [.81 - .86].

Materials

The AGT was identical to Experiment 1.

Procedure

The procedure was similar to Experiment 1 with few exceptions. Before completing the AGT, participants were presented with a list of volunteering domains (e.g., sports, church, and culture). They were asked to select a domain that they were most interested in but not currently engaged in. Following the completion of the AGT, participants in the INTENTION first-order were presented with the four items assessing volunteering intention and indicated their endorsement of social activation afterward. For participants in the PVoAS first-order, the order was reversed.

Analytic Strategy

Analytic strategy was similar to Experiment 1, but the presentation order factor was added to all analyses.

Results

Descriptive Results

Assignment of participants to presentation order and AGT-groups can be found in Table 4. Testing for AGT-group and presentation order effects in adherence to social activation showed neither main nor interaction effects, $p > .100$. Table S2 (supplemental material) provides an overview of volunteering domains participants selected. 179 (24.69%) participants in the agreement-group and 171 (23.59%) in the disagreement-group reported no volunteering in the last 12 months. There were no differences in previous volunteering across AGT and presentation order groups according to a Cochran-Mantel-Haenszel test, CMH(5) = 3.057, $p = .691$.

Means, SDs, and correlations between study variables can be found in Table 5. Social activation indicators were moderately to highly positively correlated with each other. Volunteering intention and indicators of social activation had moderate, positive correlations. Age had low positive, but significant correlations with other- and self-related social activation. Age and adherence to social activation as well as volunteering intention were not significantly related.

Main Results

As can be seen in Figure 3a, there was a significant main effect of AGT-group on endorsing the norm of social activation for (other) older adults, $F(1, 720) = 11.43$, $p = .008$, $\eta_p^2 = .02$, indicating an assimilation effect. Neither the presentation order effect nor the AGT × order interaction were significant, $p > .100$.

As can be seen in Figure 3b, the assimilation effect was also found for endorsing the self-related norm of social activation, $F(1, 720) = 17.23$, $p < .001$, $\eta_p^2 = .02$. There was also a main target effect, $F(1, 720) = 4.45$, $p = .035$, $\eta_p^2 = .01$, indicating a slightly higher endorsement for other-related (M_{adj} = 3.37, SE_{adj} = 0.03) than for self-related items (M_{adj} = 3.33, SE_{adj} = 0.03). There was no main effect of presentation order and none of the interactions involving AGT-group were significant, $p > .200$. For volunteering intentions, there was no main effect of AGT-group, $F(1, 720) = 0.001$, $p = .998$. Neither presentation order effect nor the AGT × order interaction were significant, $p > .100$.

Mediation Analyses

As can be seen in Figure 4a, there was a significant indirect effect of our manipulation on endorsement of self-related social activation via other-related social activation, indicating internalization. In line with the idea of embodiment, the indirect effect of the AGT manipulation on

volunteering intentions via the endorsement of self-related social activation was significant (Figure 4b). Results concerning a moderating effect of age group can be seen in Figure S1b (supplemental material). These moderating effects were not significant, indicating that age group did not affect embodiment.

Discussion

The findings replicated those of Experiment 1. Providing arguments for agreeing (vs. disagreeing) with the norm of social activation had an assimilative effect on endorsement. The group that provided arguments in favor of it (vs. against) reported higher endorsement of social activation for other older adults but also themselves as older adults (internalization effect). Again, we found a high correlation between other- and self-related social activation, further attesting to the idea that older adults could see societal prescriptive norms as guidelines for their own lives. We again found an indirect effect of our manipulation on the endorsement of self-related social activation via the endorsement of social activation targeting other older adults. This further attests to the idea that prescriptive norms can become internalized.

Compared to Experiment 1, we found higher correlations between volunteering intention and self-related social activation. However, tailoring the assessment of volunteering intention to a domain that was particularly interesting for our older participants and assessing volunteering intention directly, rather than in comparison to the current volunteering level, did not result in a significant total effect of our manipulation on volunteering intentions. Assessing volunteering intention before the endorsement of social activation did not yield stronger effects either. Similar to Experiment 1, there was a significant indirect effect of our manipulation on volunteering intentions via the endorsement of social activation (embodiment effect). Albeit significant, this indirect effect via self-related social activation was again small in size.

General Discussion

Against the backdrop of population aging, policymakers and the general public call for a greater involvement of older adults in society [27, 28]. While benefits of such social activities for older adults are stressed by some researchers [7], others highlight potential tensions between normative societal expectations and older adults' idea of life in old age [29]. Prior research did not show that older adults would behave in line with what is socially expected of them [11]. With our two experiments, we provided a more nuanced picture regarding the link between endorsement of the societal prescriptive norm of social activation and intention to become socially engaged.

Internalization

Replicating previous work [4], in both experiments, we found evidence for spontaneous internalization. Manipulating agreement with the norm of social activation targeting other older adults transferred to endorsing social activation for oneself as an older adult. Further, we could show that the effect of our manipulation on the endorsement of social activation for oneself as an older adult was mediated via differences in endorsing social activation targeting (other) older adults. This finding is in line with the idea that views of aging are acquired in a more general fashion before they are translated into normative ideas relating to one's life in old age [12].

Our finding that the endorsement of social activation could be influenced by providing arguments for or against norm adherence shows that normative beliefs are not completely rigid and irreversible. Gaining a deeper insight into societal norms and reasons not to adhere to them might be helpful when confronted with such expectations. Older adults might have few coping strategies available when it comes to dealing with challenges to their self-concept or their views of life in old age [30, 31]. Reflecting on societal norms, and balancing their pros and cons could be a starting point for developing strategies to shield older adults' self-concept from potentially harmful normative influences.

Embodiment

Once old-age stereotypes and normative beliefs have been integrated into older adults' self-concept, they could also influence behavioral intentions and behavior [12]. Embodiment is seen as an assimilative process in which older adults come to align their behavior with the content of old-age stereotypes and norms, operating like a self-fulfilling prophecy. While there is evidence linking exposure to and endorsement of descriptive views of aging to behavior [12, 32], our study was the first that investigated internalization and embodiment of PVoA. Our results indicated that simply generating arguments about reasons for agreeing with the norm of social activation did not directly affect volunteering intentions. Rather, for the norm of social activation to influence older adults' willingness to volunteer, it first had to be endorsed. This shows that social normative appeals, once they become internalized, could motivate older adults to become socially engaged [33, 34]. Our findings did not indicate moderating effects of age group regarding embodiment, which contradicts predictions derived from Social Identity Theory [17], if one assumes that age (group) is proxy for identification with the group of older adults. To explain this finding, one might argue that age is an imperfect indicator of age group identification, so that differences in embodiment of age-related norms are not captured by this variable. Relatedly, processes of embodiment might already be ubiquitous in the age range of our samples (60+). However, our findings are in line with research investigating embodiment of activation in the fitness domain indicating that norm endorsement was

related to physical exercise participation whereas age group identification was not [35]. Thus, social group identification may not necessarily be relevant for embodiment of old age norms.

Embodiment of descriptive views of aging can be harmful to older adults (e.g., the stereotype that older adults are inactive can lead to adopting a sedentary lifestyle, resulting in health impairments; [36]), but is embodiment of PVoA harmful or beneficial for older adults? There might not be a straightforward answer to this question. First, PVoA provide orientation regarding life in old age and what behavior is seen as age-appropriate [1, 9]. Many older adults even endorse PVoA for themselves rather than being forced to adhere to them [1, 4]. Most older adults also appraise social activation demands as challenges rather than as threats and want to engage with them [37]. Engaging with activation demands could take many forms and should ideally meet individuals' needs, resources, and abilities. By rescaling personal goals and aspirations (e.g., more flexible social engagements or volunteering online), older adults can still adhere to societal expectations even when faced with biological, psychological, or social constraints. Activation demands may, however, also have costs as they put the focus on the individual and their responsibility to remain active [1]. Chances for aging actively may be influenced by sources outside of individuals' control; resources and possibilities for social participation are not equally distributed [5, 6]. Some older individuals, especially those facing constraints paired with individual strains such as widowhood or unemployment, may feel frustrated by unrealistic expectations for social activation. Furthermore, self-regulatory processes related to disengagement, which become more important with advancing age [13], are more difficult to implement if older adults are confronted with expectations of social activation. In contrast, some researchers have pointed out that expectations for active aging might simply be ignored and should have no effect [11]. Thus, how much embodiment of social activation is harmful or beneficial rests on the fit between societal expectations, older adults' resources, and their concept of an "ideal retirement lifestyle" [29]. Future research needs to elucidate the specific contexts in which adhering to social activation may have positive versus negative consequences for older adults.

Limitations and Future Directions

Although our experiments offer important insights into the internalization and embodiment of social activation, the following limitations deserve note. We focused on assessing volunteering intention rather than actual volunteering behavior. This was done primarily for theoretical but also for practical reasons. Intentions are among the best predictors of actual behavior and typically mark the first step in behavior change [38, 39]. Intentions may provide a sensitive indicator to investigate the potential effects of age-related norms on older adults' behavior. Although interesting, assessing changes in actual behavior may be less sensitive to detect effects of norms on behavior regulation

since behavior is more difficult to assess, takes more time to develop, and is subject to a host of other, unrelated factors.

The experiments were conducted online and volunteering intention was assessed only once directly following the manipulation. Deeper insights into effects of our manipulation on volunteering and volunteering intention could be obtained by asking participants several days after the initial manipulation about their intention to volunteer, related behaviors (e.g., contacting volunteering organizations, gathering information on volunteering), as well as if they engaged in volunteering behavior [20]. Such mini-longitudinal studies could move us beyond the current cross-sectional mediation analyses and provide more insights into how stable the effects are.

We asked participants to provide arguments for or against social activation and assessed personalized endorsement and volunteering intention as indicators of internalization and embodiment. This explicit assessment is in line with current reviews showing scarce evidence for implicit attitudes and recommending self-report rather than implicit measures [40, 41]. Thus, our design did not capture more implicit processes involved in internalization and embodiment, something that could be addressed in future work.

Based on theoretical ideas about internalization [12], we tested whether the effect of our manipulation on endorsement of self-related social activation was mediated by the endorsement of other-related social activation. However, our design does not provide insights regarding the directionality of the effect. We could have investigated whether the endorsement of self-related social activation mediated the effect of our manipulation on the endorsement of other-related social activation. Such investigations would be consistent with another idea in the literature, namely that older adults project their aging experiences and their self-views onto more general views of aging [13]. Since our manipulation entailed generating arguments for the norm of social activation for older adults in general, it seems justifiable to assume that effects of this manipulation first affected the general norm, and only then became translated into self-related normative ideas regarding oneself as an older person. To explore the effects of projection, one could ask older participants to generate arguments for why they should or should not be socially engaged and investigate their endorsement of social activation for older adults in general. To gain more insights into internalization, it would be interesting to use different measures of self-related social activation and to assess more age groups. For instance, one could remove the “As older adult” part of the self-related items and instead only state “I should”. This item change would provide the possibility to test the age specificity of our manipulation. As internalization should be most relevant in late adulthood, we should only see effects of our manipulation for older but not younger adults’ endorsement of self-related social activation.

Appeals for social activation may also not only be directed at older adults. Younger adults are also expected to contribute to the common good [2], although this is framed as a developmental task, helping to build experience and skills [5]. Given that aging adults increasingly interpret their experiences as being "age-related", societal expectations for active aging may gain self-relevance already in middle age. Including younger and middle-aged adults in future studies could provide a more nuanced understanding of how normative societal expectations affect volunteering intentions.

We only assessed participants' willingness to engage in formal volunteering. Future studies should consider other potential areas in which older individuals contribute to the common good. For example, many older adults provide unpaid care, whereas some are politically engaged. Thus, when investigating the role of normative expectations for older adults' social engagement, one should consider a broader definition including caregiving and civic engagement, and assess indicators of social engagement more comprehensively.

When investigating older adults' volunteering intentions, it could be important to include other age-related factors. Older adults might fear encountering or may have already encountered age discrimination in volunteering organizations [42]. Also, negative self-stereotypes about aging might be barriers to older adults' volunteering [43]. Assessing factors related to older adults' experiences could elucidate ageism in formal volunteer settings. This, in turn, could help to provide more inclusive opportunities for older adults to be involved in the community [10].

Conclusion

The idea that older adults should contribute to the common good has become a social normative belief (i.e., social activation). Although it has been assumed that older adults behave in line with what is socially expected of them, evidence for this relation has not been previously found. In two experiments we have shown that endorsing social activation for oneself can increase the intention to volunteer. However, this internalization and embodiment of the norm of social activation are not completely rigid and irreversible, as they lend themselves to experimental manipulation. Gaining a deeper insight into societal prescriptive norms and reasons for (not) adhering to them might help older adults negotiate these normative expectations.

Statement of Ethics

Study approval statement: This study protocol was reviewed and approved by the Ethics Committee of the Friedrich-Schiller-University Jena, approval number FSV 22/018.

Consent to participate statement: Written informed consent was obtained from participants to participate in the study.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

M Wirth, MC de Paula Couto, MK Pavlova, and K Rothermund conceptualized and designed the study. M Wirth collected and analyzed the data. MC de Paula Couto, MK Pavlova, and K Rothermund assisted in interpreting the data. M Wirth wrote the first draft, and all authors critically edited the manuscript. All authors read and approved the final manuscript.

Data Availability Statement

The data that support the findings are openly available at https://osf.io/cn5hj/?view_only=56c4716190ba41eea2eae08dff91ae93. Preregistration for Experiment 1 is available at https://aspredicted.org/BFY_L82, and preregistrations for Experiment 2 are available at https://aspredicted.org/T9Q_65F and https://aspredicted.org/KHK_JKJ.

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Table 1

Experiment 1: Background information of included and excluded participants

Demographics	included (n= 649)	excluded (n = 40)	difference
Mean age (*SD*)	69.590 (6.01)	67.775 (5.11)	$t(45.92) = 2.156$, $p = .037$
Age group (%)			
60 – 70 years	368 (53.4)	28 (1.7)	$\chi(1) = 2.209$, $p = .137$
71+ years	281 (40.8)	12 (4.1)	
Gender (%)			$\chi(1) = 0.398$, $p = .528$
female	334 (48.5)	18 (2.6)	
male	315 (45.7)	22 (3.2)	
Education (%)			$\chi(2) = 3.315$, $p = .191$
< 10 years	120 (17.4)	11 (1.6)	
10 years	231 (33.5)	16 (2.3)	
> 10 years	298 (43.3)	13 (1.9)	
Vocational training (%)			$\chi(4) = 2.697$, $p = .610$
no vocational training	23 (3.2)	1 (0.1)	
vocational training	318 (46.2)	24 (3.5)	
college	89 (12.9)	6 (1.0)	
university degree	213 (30.9)	9 (1.3)	
other	6 (0.9)	0 (0.0)	

Occupation (%)			$\chi(3) = 3.576$, $p = .311$
employed	131 (19.0)	7 (1.1)	
unemployed	11 (1.7)	0 (0.0)	
retired	489 (71.0)	30 (4.4)	
other	18 (2.7)	3 (0.1)	
satisfaction with life (*SD*)[a]	4.946 (1.28)	5.050 (1.28)	$t(43.96) = -0.498$, $p = .621$
subjective health (*SD*)[b]	3.328 (0.77)	3.375 (0.84)	$t(43.21) = -0.344$, $p = .732$

Note. [a]Satisfaction with life was assessed with one item "I am satisfied with my life", on a response scale of 1 (does not apply at all) to 7 (fully applies). [b]Subjective health was assessed by a single item, "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Table 2

Experiment 1: Intercorrelations among study variables (N = 649).

Variable	1	2	3	4	5
1. Activation Social Baseline	-				
2. Activation Social Other-related	.57***	-			
3. Activation Social Self-related	.62***	.80***	-		
4. Intention to Change Volunteering Frequency	.17***	.19***	.19***	-	
5. Chronological age	.10*	.16***	.15***	-.02	-

Note. p values were adjusted for multiple comparisons using the method proposed by Holm. (1979).

*** $p < .001$, ** $p < .01$, * $p < .05$

Table 3

Experiment 2: Background information of included and excluded participants

Demographics	included (n= 725)	excluded (n = 49)	difference
Mean age (*SD*)	69.789 (5.85)	68.918 (6.84)	$t(52.86) = 0.870$, $p = .388$
Age group (%)			
60 – 70 years	368 (47.6)	21 (2.7)	$\chi(1) = 0.852$, $p = .356$
71+ years	357 (46.1)	28 (3.6)	
Gender (%)			$\chi(1) = 4.506$, $p = .034$
female	373 (48.2)	17 (2.2)	
male	352 (45.5)	32 (4.1)	
Education (%)			$\chi(2) = 2.618$, $p = .270$
< 10 years	126 (16.3)	13 (1.6)	
10 years	288 (37.2)	17 (2.2)	
> 10 years	311 (40.2)	19 (2.5)	
Vocational training (%)			$\chi(4) = 2.279$, $p = .685$
no vocational training	22 (2.8)	2 (0.3)	
vocational training	366 (47.3)	28 (3.6)	
college	125 (16.1)	9 (1.2)	
university degree	200 (25.8)	10 (1.3)	
other	12 (1.6)	0 (0.0)	

Occupation (%)			$\chi(3) = 1.305$, $p = .728$
employed	129 (16.7)	11 (1.4)	
unemployed	18 (2.4)	2 (0.1)	
retired	566 (73.1)	35 (4.5)	
other	12 (1.7)	1 (0.1)	
satisfaction with life (*SD*)[a]	4.926 (1.31)	4.714 (1.46)	$t(53.34) = 0.988$, $p = .328$
subjective health (*SD*)[b]	3.312 (0.79)	3.204 (0.89)	$t(53.24) = 1.055$, $p = .296$

Note. [a]Satisfaction with life was assessed with one item "I am satisfied with my life", on a response scale of 1 (does not apply at all) to 7 (fully applies). [b]Subjective health was assessed by a single item, "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Table 4

Experiment 2: Assignment of participants to ORDER and AGT groups (final sample)

order	Agreement	Disagreement
INTENTION first	181	179
PVoAS first	181	184

Table 5

Experiment 2: Intercorrelations among study variables (N = 725).

Variable	1	2	3	4	5
1. Activation Social Baseline	-				
2. Activation Social Other-related	.54***	-			
3. Activation Social Self-related	.64***	.79***	-		
4. Volunteering Intention	.58***	.46***	.54***	-	
5. Chronological age	.06	.19***	.15***	-.07	-

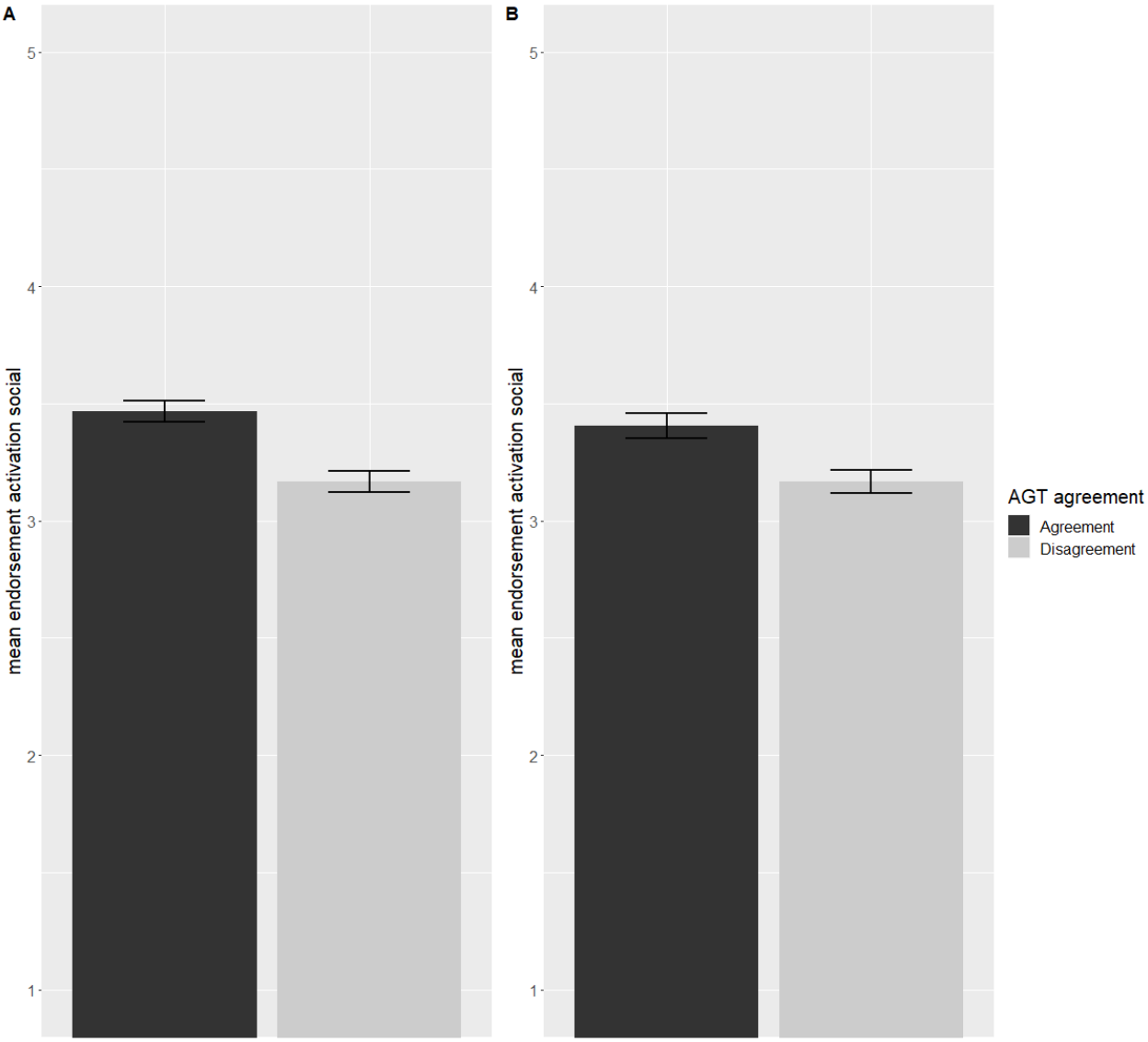
Note. p values were adjusted for multiple comparisons using the method proposed by Holm (1979).

*** $p < .001$, ** $p < .01$, * $p < .05$

Figures

Figure 1

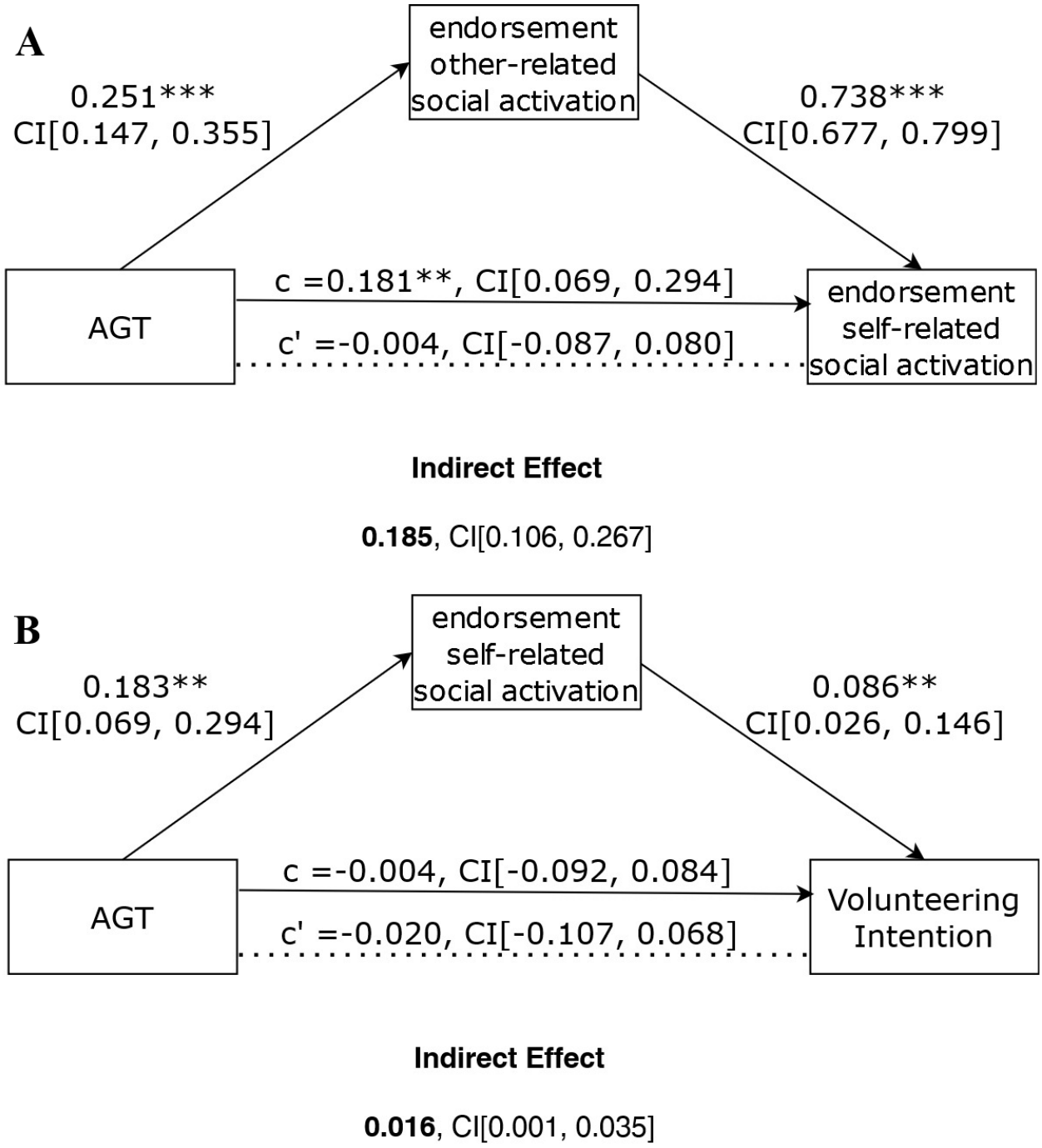
Experiment 1: Mean ratings of the norm of social activation by AGT group (A), for other-related items and (B) self-related items.



Note. Error bars show standard errors.

Figure 2

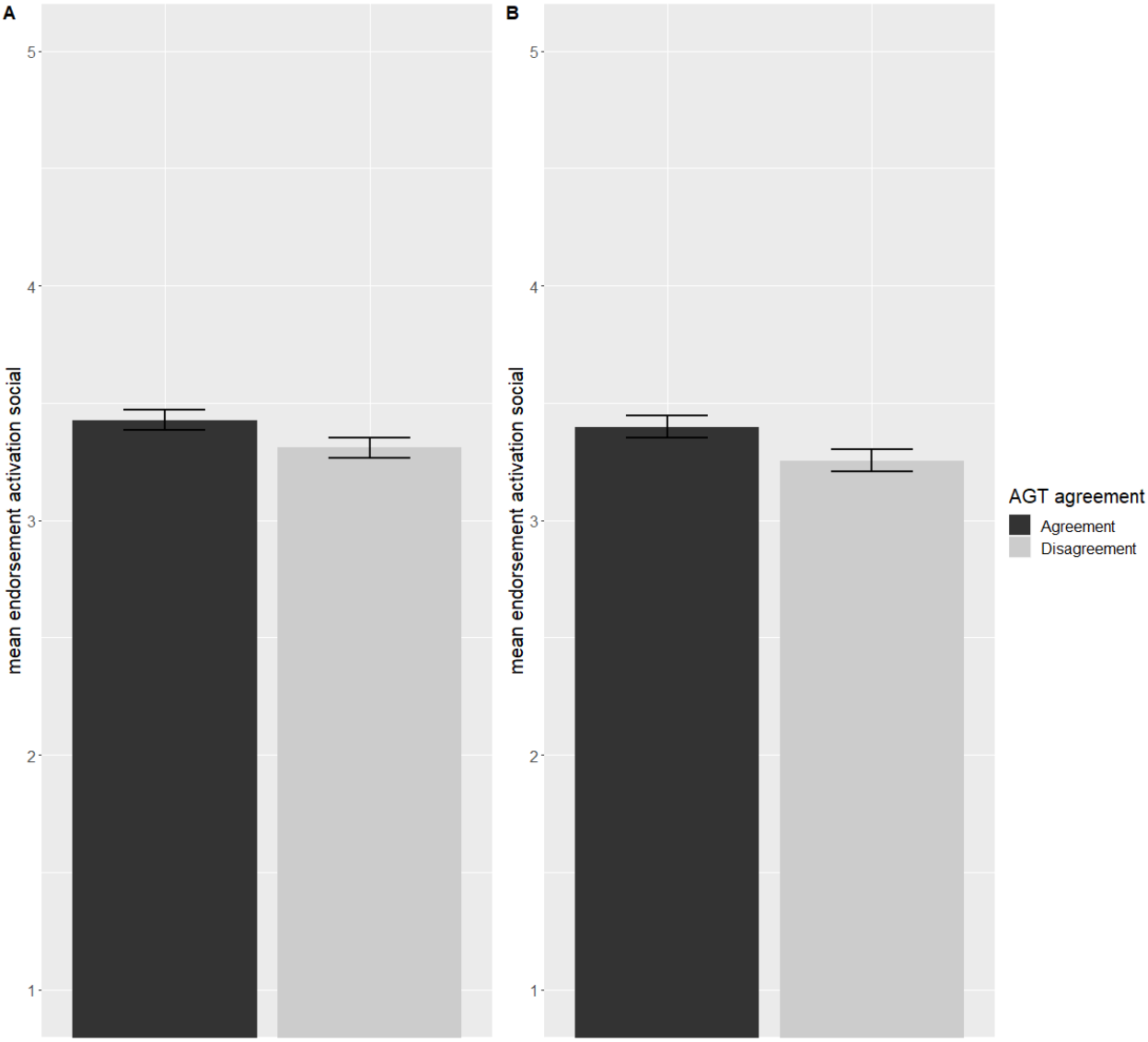
Experiment 1: Mediation Analyses: (A) indirect effect of AGT group on endorsement of the self-related norm of social activation through other-related social activation, (B) indirect effect of AGT group on intention through self-related social activation.



Note. All coefficients are unstandardized. *$p < .05$, ** $p < .01$, *** $p < .001$

Figure 3

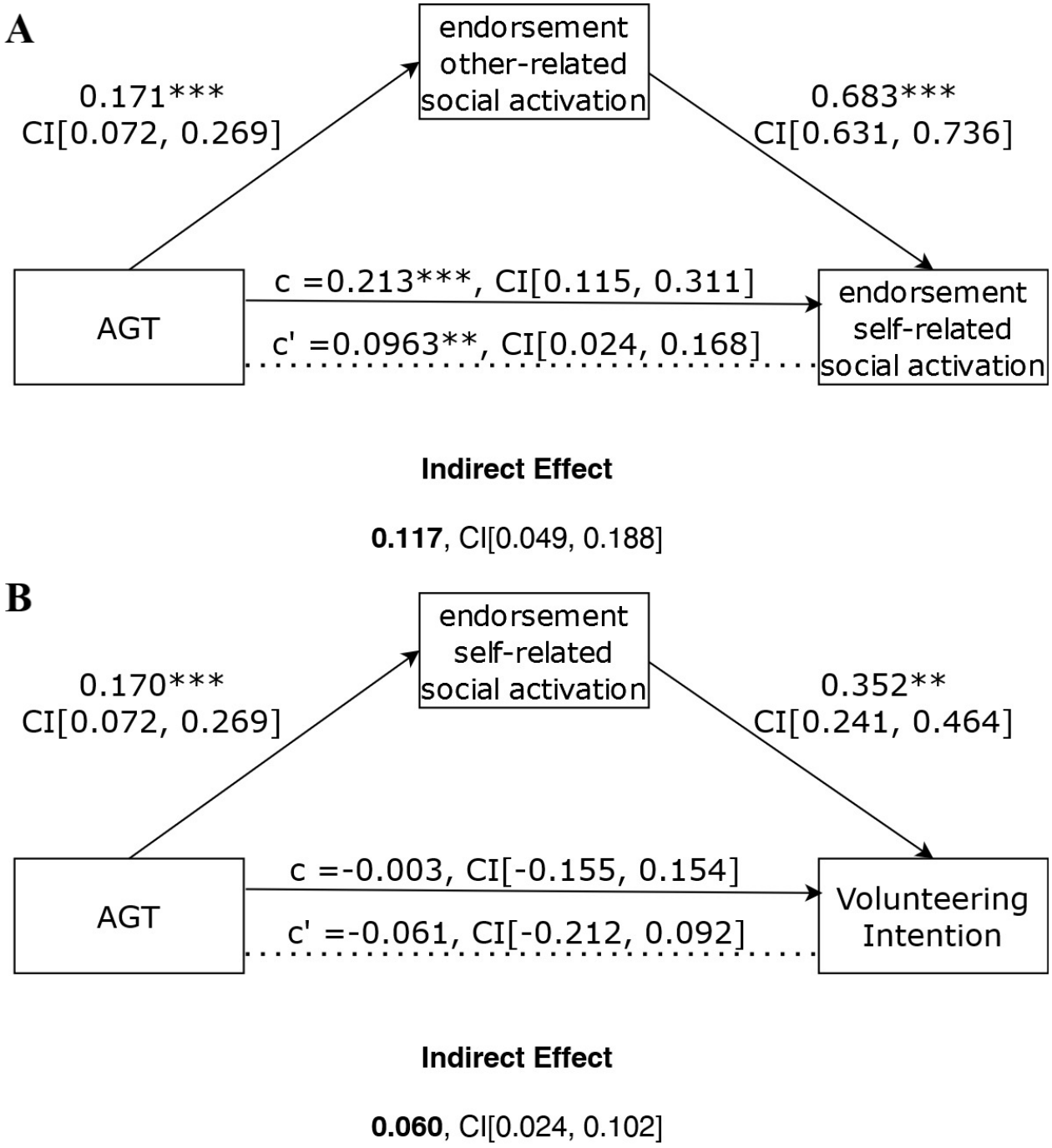
Experiment 2: Mean ratings of the norm of social activation by AGT group (A), for other-related items and (B) self-related items.



Note. Error bars show standard errors.

Figure 4

Experiment 2: Mediation Analyses: (A) indirect effect of AGT group on endorsement of self-related social activation through other-related social activation, (B) indirect effect of AGT group on intention through self-related social activation.



Note. All coefficients are unstandardized. *$p < .05$, ** $p < .01$, *** $p < .001$

Supplementary Materials

Table S1. Distribution of volunteer activities by AGT for Experiment 1

	Agreement			Disagreement		
Volunteering domain	Active	Planned	Not Active	Active	Planned	Not Active
Public positions	27	24	274	28	27	269
Church	25	8	292	15	10	299
Sports	31	13	281	27	9	288
Culture	36	20	269	24	25	275
Political	41	19	265	34	31	259
Education	24	29	272	19	19	286
Nature and animals	47	46	232	45	44	235
Human rights	13	8	304	9	12	303
Neighborhood help	27	19	279	28	21	275
Charity shops	16	48	261	14	47	263
Social support	69	39	217	55	41	228
Self-help groups	16	16	293	12	12	300
other	14	3	119	16	5	104

Note. 97 (14.95%) participants in the agreement-group and 112 (17.26%) participants in the disagreement-group reported neither volunteering nor plans to volunteer. 62 (9.55%) participants in the agreement-group and 57 (8.78%) participants in the disagreement-group reported plans to

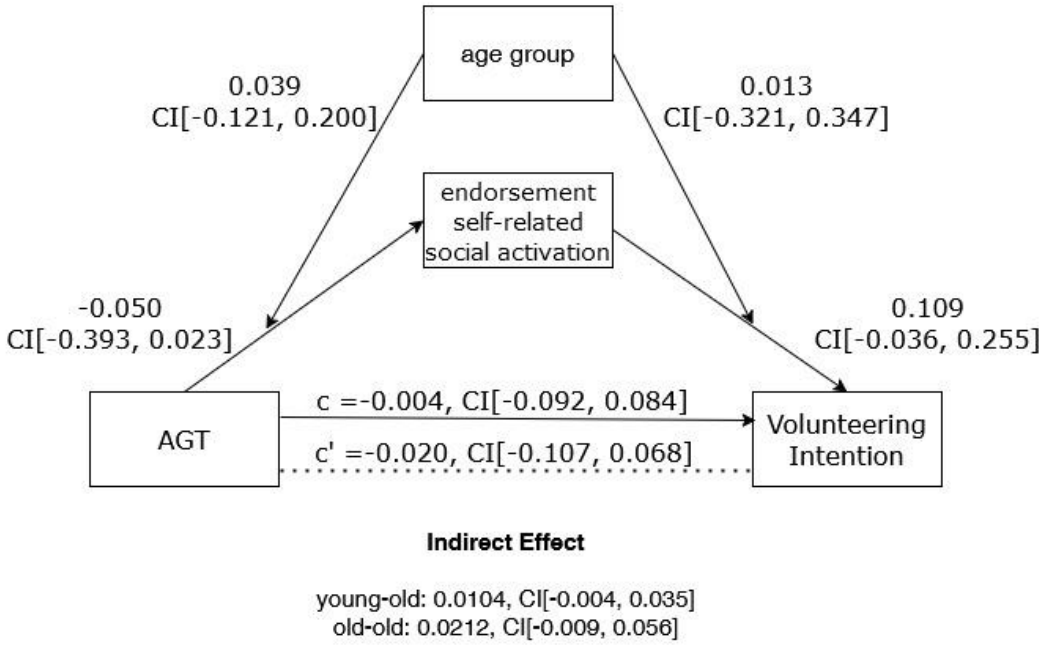
volunteer. 73 (22.5%) and 75 (23.1%) participants in the agreement- and disagreement-group engaged in one volunteer activity. The remaining participants engaged in at least two up to 12 volunteer activities.

Table S2. Distribution of volunteer activities by AGT for Experiment 2

Volunteering domain	Agreement	Disagreement
Sport	80	79
Culture	43	41
Leisure	36	30
Social	29	29
Health	11	18
Education	5	2
Extracurricular activities	3	4
Nature and animal welfare	71	65
Political	37	40
Occupational representation	4	8
Church	18	21
Judiciary	10	16
Rescue services	15	10

Fig. S1. (a) Experiment 1: indirect effect of AGT-group on intention through self-related social activation, moderated by age group, (b) Experiment 2: indirect effect of AGT-group on intention through self-related social activation, moderated by age group

a



b