

# Contact with older people, ageism, and containment behaviours during the COVID-19 pandemic

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## Abstract

To reduce and slow the spread of the coronavirus during the pandemic, people throughout countries are asked to adopt a series of prevention behaviours such as keeping physical distance and using protective devices (containment behaviours). Vulnerability of older people during the pandemic has been stressed by mass-media and in political communication, calling for protection of this sector of the population. Based on intergroup contact theory and on the stereotype content model, I conducted a correlational study during the coronavirus lockdown in Italy, analysing contact with older people before the pandemic, ageism, and containment behaviours. Quality of contact with older people, favourable attitudes toward older people, and benevolent ageism were found to be positively associated with containment behaviours. Findings suggest that positive intergenerational relations are likely beneficial for public health.

## KEYWORDS

ageism, benevolent ageism, containment behaviours, coronavirus, COVID-19, intergroup contact, stereotype content model

## 1 | INTRODUCTION

From its outbreak in December 2019, the ongoing COVID-19 pandemic has caused more than 1.7 million deaths and millions of people have been infected throughout the world (Worldmeter, December 24, 2020). The public health emergency is also due to the fact that hospitals are not prepared to provide intensive care to such high numbers of patients with respiratory distress (Cesari & Proietti, 2020). To reduce and slow the spread of the coronavirus, people in countries around the world are called to act responsibly by following containment behavioural guidelines

such as keeping physical distance from other people and using protective devices such as masks and sanitizing gel (containment behaviours). Following such behavioural guidelines should contribute to reduce or at least slow the spread of the coronavirus, preventing the overcrowding of hospitals so that all patients who need intensive care can better receive treatment. Most governments have not only recommended such behaviours, but have even established sanctions against transgressors. Despite these recommendations and sanctions, some people have not followed such behavioural guidelines. Given the importance of containment behaviours for public health, it is crucial to identify factors, which could promote adherence to such behaviours.

Epidemiological data have shown that older people are particularly vulnerable to consequences of the coronavirus, having higher risks of serious complications and of death compared to younger people (e.g., Verity et al., 2020). The vulnerability of older people has been stressed in political speech and the mass-media, for example, with slogans such as “we should preserve [...] especially the health of our grandparents” by the Italian Prime Minister Giuseppe Conte (Repubblica, 2020).

Indeed, the pandemic has been accompanied by an increase in different forms of ageism in the mass-media, political discourse, and everyday life (Ayalon et al., 2020; Previtali, Allen, & Varlamova, 2020). This includes both benevolent forms of ageism such as older adults described and treated as a homogeneous, vulnerable, and helpless category, and hostile forms of ageism such as messages emphasizing that older adults could be sacrificed for the economy or that age could be used as a criterion to prioritize patients in intensive care (Ayalon et al., 2020; Meisner, 2020; see also Cesari & Proietti, 2020). Nevertheless, the pandemic has also elicited intergenerational solidarity, for example, with calls to emotionally support and keep social contact with older people despite physical distance (Ayalon et al., 2020; Previtali et al., 2020).

Based on such complex ageism dynamics during the pandemic, this research aims at analysing whether contact with older people before the pandemic, as well as different forms of ageism, are associated with containment behaviours aimed at reducing and slowing the spread of the coronavirus. I argue that contact with older people, positive attitudes toward older people as well as benevolent ageism could be associated with a greater propensity to adopt containment behaviours. These hypotheses are empirically tested via data from a survey conducted in Italy.

Italy is one of the countries dramatically affected by the pandemic. In particular, the data for this research were collected during the lockdown (March 9–May 18, 2020), when people living in Italy were not allowed to go out of their houses except for work, necessities (such as groceries), or health reasons. When in public, people were asked to use protective devices (e.g., masks, sanitizing gel). Despite such guidelines and laws, not all people followed them carefully. This research therefore analyses whether adoption of such containment behaviours varies as a function of contacts with older people and ageism.

## 2 | AGEISM AND CONTACT WITH OLDER PEOPLE

Ageism is defined as prejudice based on age (Butler, 1969), and has been studied and applied mainly considering older adults as the target (as opposed to, e.g., young people or children). Age is one of the most prominent dimensions for social categorization (e.g., Kite, Deaux, & Miele, 1991), but mechanisms of age categorization differ from those for other social categories such as ethnicity and gender. This is because perceptions of age groups are largely subjective and context-dependent, and because all people are subject to potentially getting old and thus facing ageism. Like other “isms,” ageism encompasses cognitive (beliefs and stereotypes), affective (emotions and prejudice), and behavioural (discriminatory and behavioural tendencies) reactions toward older people (see e.g., Abrams, Swift, Lamont, & Drury, 2015). Ageism is a complex phenomenon, which typically includes both positive and negative components. The majority of older people report being a target of discrimination because of their age (e.g., Abrams et al., 2015). Nevertheless, despite negative consequences of being the target of ageism such as reduced well-being (e.g., Levy, Zonderman, Slade, & Ferrucci, 2009) and cognitive performance (e.g., Lamont, Swift, & Abrams, 2015), ageism remains understudied compared to other forms of prejudice such as sexism and racism.

The Stereotype Content Model (SCM; Fiske, Cuddy, Glick, & Xu, 2002) provides a theoretical framework to understand the complexity of age stereotypes and the mixed nature of ageism. This model proposes that there are two fundamental dimensions of perceptions toward individuals and toward groups, that is, warmth and competence. Different combinations of these perceptions lead to different emotional reactions, to different forms of prejudice, and to different behavioural tendencies. According to the SCM, behavioural action tendencies toward outgroups vary as a function of stereotypes and emotions, and can range from active (intentionally targeting the outgroup) to passive (not directly targeting, but still affecting the outgroup) behaviours, and from harm (behaviours damaging the outgroup) to facilitation (behaviours favouring the outgroup). In particular, older people are generally viewed as warm but incompetent (e.g., Cuddy et al., 2009). According to the SCM, this combination is grounds for developing emotions such as pity and compassion, as well as benevolent or paternalistic prejudice, consisting of beliefs that the outgroup is dependent and of patronizing attitudes and behaviours. Paternalistic, benevolent prejudice is in turn associated with behavioural tendencies of active facilitation (i.e., help and protection) but also passive harm (e.g., social exclusion). Benevolent ageism can be seen when older adults are considered and treated as lacking independence and when they are spoken in oversimplified or patronizing ways (known as over-accommodation; see Giles & Ogay, 2007; Ryan, Hummert, & Boich, 1995). Such benevolent treatment has been found to have detrimental effects on older adults' health, well-being, and autonomy (e.g., Baltes & Wahl, 1996; Langer & Rodin, 1976).

Containment behaviours are aimed at reducing and slowing the spread of the coronavirus. Given that epidemiological research and political and mass-media communication underlined the dangerousness of the coronavirus for older people, containment behaviours could be seen as behaviours aimed at intentionally protecting and helping older adults (i.e., active facilitation toward older adults). Therefore, in this research, I investigate whether benevolent ageism is positively associated with adoption of containment behaviours.

While paternalism and benevolence are the most common forms of prejudice toward older people, in contexts characterized by intergenerational tensions, hostile prejudice might also emerge. In line with the SCM, hostile prejudice is based on perceptions of low warmth and competence (see Cary, Chasteen, & Remedios, 2017 for hostile ageism) and could be associated with behavioural tendencies of active harm (e.g., physical or verbal abuse) or passive harm (e.g., social exclusion or neglect). Failing to follow behavioural guidelines to reduce the spread of the coronavirus could represent a form of intentional harm (i.e., active harm) toward older people, given the vulnerability of older people to the coronavirus. Hence, hostile prejudice might be associated with reduced containment behaviours.

Several social-psychological antecedents of ageism and strategies to overcome it have been proposed. For example, antecedents include identity motives (see North & Fiske, 2012) and intergenerational tensions (see Abrams et al., 2015; North & Fiske, 2012). Strategies to overcome ageism can rely for example on perspective taking (e.g., Galinsky & Moskowitz, 2000) and, crucially for the current research, intergroup contact. Indeed, contact with outgroup members is considered one of the most reliable predictors of prejudice reduction (Allport, 1954; Pettigrew & Tropp, 2006). Intergroup contact theory applications to age relations have investigated whether contact between different age groups can reduce ageism. For example, Harwood, Hewstone, Paolini, and Voci (2005) found that students' quality of contact with their grandparents was associated with better attitudes toward older people (see also Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006). Similarly, Bousfield and Hutchison (2010) showed that quality (but not quantity) of contact with older people was associated with positive attitudes and behavioural intentions toward them (see also, Hutchison, Fox, Laas, Matharu, & Urzi, 2010). Overall, this body of research suggests that intergenerational contact can reduce ageist attitudes, and that such associations could be stronger for contact quality compared to contact quantity (Bousfield & Hutchison, 2010; Schwartz & Simmons, 2001). Importantly, intergroup contact appears to have the potential to reduce also subtle forms of ageism, such as implicit prejudice measured by the Implicit Association Test (Tam et al., 2006). Furthermore, previous research found that contact with older colleagues can favour facilitation behaviours (e.g., help and collaborate with older colleagues), partly via increases in perceived warmth and competence (i.e., stereotypes) of older people (Iweins, Desmette, Yzerbyt, & Stinglhamber, 2013). Therefore, in this research, contact with older adults before the pandemic was considered as a possible antecedent of ageism and, in turn, of containment behaviours.

### 3 | THE CURRENT RESEARCH

This research seeks to test associations between ageism and containment behaviours aimed at reducing and slowing the spread of the coronavirus. Containment behaviours mainly consist in keeping physical distance from other people and using protective (e.g., masks, sanitizing gel) devices. While containment behaviours do not specifically target older people, epidemiological evidence and mass-media/political communication have underlined that the coronavirus pandemic is particularly dangerous for older people. Therefore, containment behaviours could be perceived as behaviours aimed at protecting these older people (active facilitation behaviour toward older people), while ignoring containment behavioural guidelines might represent ways of damaging older people (active harm toward older people). Ageism was operationalized both as benevolent and hostile ageism (see Cary et al., 2017), and with an additional prejudice measure investigating whether attitudes toward older people are favourable versus unfavourable. As previously explained, benevolent ageism implies willingness to protect older people, and might therefore be associated with higher containment behaviours. Positive, non-hostile beliefs and attitudes toward older people should also underlie containment behaviours. Therefore, prejudice against older people (i.e., unfavourable attitudes) and hostile ageism were expected to be negatively associated with containment behaviours.

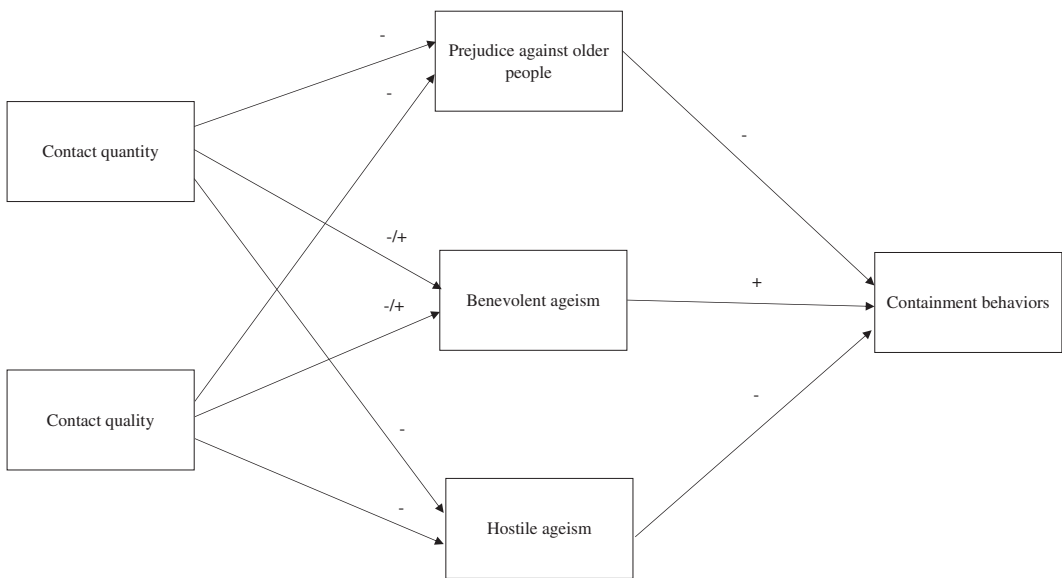
In this research, I also considered possible antecedents of attitudes toward older people. Based on intergroup contact theory (Pettigrew & Tropp, 2006), I investigated quantity and quality of contact with older people. Given the particularly strong recommendations and sanctions to avoid social contact at the time of data collection in Italy (and thus the difficulty for people to be in any kind of social contact at the time), I focused on contact with older adults *before* the pandemic. Specifically, I expected quantity and quality of contact to be associated with reduced prejudice against older people and hostile ageism. Associations between intergroup contact and benevolent prejudice have not been investigated in existing literature, and alternative hypotheses can be drawn. On the one hand, benevolence is a form of prejudice implying a homogeneous view of the outgroup which is seen as incompetent and dependent. Given that intergroup contact has the potential to reduce perceived outgroup homogeneity (e.g., Islam & Hewstone, 1993), and that benevolent ageism is a form of prejudice, it is possible that intergroup contact is associated with reduced benevolent ageism. On the other hand, the irony of harmony literature conceptualizes intergroup contact and benevolence as compatible and as jointly reinforcing social hierarchies (e.g., Dixon, Durrheim, Kerr, & Thomae, 2013; Durrheim, Jacobs, & Dixon, 2014). Indeed, majority group members having positive relations with minorities and treating minorities with benevolence are likely to promote perceptions that relationships between majorities and minorities are positive and fair, with no need for social change, thereby preserving the status quo. It is therefore also possible that intergroup contact is positively associated with benevolent ageism. It is also important to note that while I expected both quantity and quality of contact with older people to be associated with ageism, it is also possible that associations are stronger for quality than for quantity, in line with literature on contact with older people (Bousfield & Hutchison, 2010; Schwartz & Simmons, 2001) and with intergroup contact literature more broadly (Binder et al., 2009).

Given that intergroup contact has been proposed and found to be an antecedent of prejudice, and given that ageism might be associated with containment behaviours, indirect effects of intergroup contact on containment behaviours via ageism were also tested. Figure 1 summarizes the theoretical model and hypothesis.

## 4 | METHOD

### 4.1 | Data collection and participants

Between the first and the sixth of April 2020, two research collaborators and I distributed a Google forms questionnaire via Facebook, email and WhatsApp with the aim of reaching a convenience community sample. Potential participants were approached via both personal private messages and emails, and publication of posts promoting the



**FIGURE 1** Hypothesized associations between intergroup contact, ageism, and containment behaviour

study on personal pages and on Facebook and WhatsApp groups. They were invited to individually answer to a questionnaire about their opinions and behaviours during the pandemic.

Anticipating testing path analysis with observed variables and 25 free parameters, and based on the rule of thumb of 10 participants per free parameter (Kline, 2011), we aimed at recruiting at least 250 respondents.

A total of 403 respondents clicked on the link and provided at least some answers to the questionnaire. While preparing the dataset for analysis, I excluded respondents who left most of the questionnaire empty or who fully skipped some of the main variables for this analysis ( $n = 7$ ), respondents who did not provide any socio-demographic information ( $n = 1$ ), and respondents who did not provide full informed consent ( $n = 3$ ). Next, I used the “identify duplicate cases” option in SPSS to check whether some respondents filled the questionnaire twice. This appeared to be the case for 11 respondents, and I deleted from the dataset the second answered questionnaire from these respondents. I further excluded respondents who wrote in open comments that they are currently not living in Italy ( $n = 2$ ), because the behavioural guidelines to reduce the spread of the coronavirus were specific to Italy at the moment of data collection. I also excluded respondents aged 65 or older ( $n = 8$ ), because of the focus on ageist attitudes. The final sample thus included 371 respondents (73% female,  $M_{\text{age}} = 34.44$ ,  $SD = 11.56$ ). The sample was mixed in terms of employment status (25% students) and education (39% with tertiary education). Importantly, the sample came from several Italian regions, including the region most affected by the pandemic (Lombardy; 16% of the sample; see Appendix 1 for proportion of respondents by region).

## 4.2 | Measures

Containment behaviours were measured with two batteries of items investigating respondents' behaviour during the past week. The first battery assessed *containment behaviour of not going out and meeting other people*, and consisted of eight items assessing the frequency of going out of the house for non-strictly necessary reasons and meeting non-cohabiting people (e.g., having a walk outside with someone, inviting someone to your place) on a scale ranging from 0 (*never*) to 6 (*6 times or more*). Answers were reversed and averaged to create a reliable composite score ( $\alpha = .65$ ). The second battery assessed *containment behaviour of using protection devices* and consisted of four items

assessing frequency (0 = *never*; 3 = *always*) of responsible behaviour (e.g., using masks, using disinfectant gel). Answers were averaged to create a reliable composite score ( $\alpha = .69$ ) (see Appendix 2 in Supporting information for full wording of the containment behaviour measures and information on coding).<sup>1</sup>

*Contact quantity* with older people was measured with a single item adapted from Drury, Hutchison, and Abrams (2016) asking respondents to rate the frequency of their contact with older people before the pandemic (1 = *very rarely*; 5 = *very often*).

*Contact quality* was measured by three items (adapted from Drury et al., 2016) asking respondents to rate the quality of such contacts on three five-point scales, with endpoints labelled unpleasant–pleasant, voluntary–involuntary, negative–positive. Responses were averaged to create a reliable composite score with higher values representing higher quality of contact ( $\alpha = .81$ ).

*Benevolent and hostile ageism* were assessed with a translation of the Ambivalent Ageism Scale by Cary et al. (2017). Respondents were invited to rate their agreement with nine items investigating benevolent ageism (e.g., Even though they do not ask for help, older people should always be offered help) and four items investigating hostile ageism (e.g., Old people are a drain on the health care system and the economy) on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were averaged to create reliable composite scores of benevolent ( $\alpha = .85$ ) and hostile ageism ( $\alpha = .76$ ).

Prejudice was measured with a single item asking respondents to report their attitudes toward older people on a thermometer from 0 (*extremely unfavourable*) to 10 (*extremely favourable*). For easiness of interpretation, scores were reverse coded so that higher values indicate higher *prejudice toward older people*.<sup>2,3</sup>

## 5 | DATA ANALYSIS AND RESULTS

As shown in Table 1 reporting descriptive statistics and bivariate correlations, respondents' contacts with older people before the pandemic were quite frequent and perceived as positive. General attitudes toward older people were also positive. Respondents exhibited some benevolent ageism, while hostile ageism was low. Turning to containment behaviours, respondents mostly reported following government guidelines quite carefully, albeit with some variability.

To assess the hypothesized mediation model, I used path analysis in Mplus. The analytical procedure consisted in first testing a fully mediated model where contact quantity and quality were the predictors, prejudice toward older

**TABLE 1** Means, standard deviations, and correlations between variables

	Range	Mean (SD)	1	2	3	4	5	6
1. Contact quantity	1–5	3.35 (1.39)	–					
2. Contact quality	1–5	4.28 (0.77)	.35***	–				
3. Prejudice against older people	0–10	1.43 (1.57)	–.24***	–.52***	–			
4. Benevolent ageism	1–5	3.07 (0.86)	.07	–.04	–.05	–		
5. Hostile ageism	1–5	2.31 (0.86)	.01	–.18***	.16**	.45***	–	
6. Containment behaviour: Not going out and seeing other people	0–6	5.84 (0.32)	–.07	.17***	–.17***	–.07	–.09	–
7. Containment behaviour: Using protection devices	0–3	2.28 (0.68)	.05	.06	–.14**	.13*	.03	.06

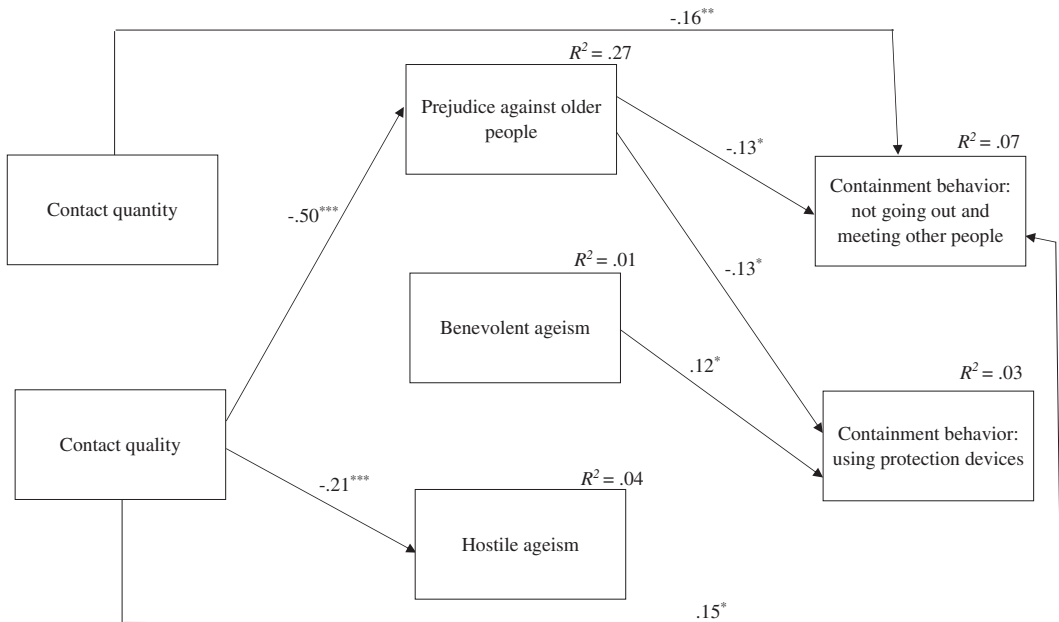
\*  $p < .05$ ;

\*\*  $p < .01$ ;

\*\*\*  $p \leq .001$ .

people, benevolent and hostile ageism were the mediators, and containment behaviours were the outcome variables. Correlations between predictors, between outcome variables, between hostile and benevolent ageism and between hostile ageism and prejudice were estimated (see Table 1). This model showed an acceptable fit to the data,  $\chi^2(5) = 13.57, p = .019, \chi^2/df = 2.71, RMSEA = .068, SRMR = .026, CFI = 0.97$ . Next, direct paths (i.e., from contact quantity and quality to containment behaviours) were released one by one and kept in the final model only if the chi-squared difference test was significant. Releasing the path from contact quantity to containment behaviour of not going out and meeting other people improved the model fit,  $\Delta\chi^2(1) = 5.11, p = .024$ . Releasing the path from contact quality to not going out and meeting other people further improved the model fit,  $\Delta\chi^2(1) = 5.71, p = .017$ . The release of additional direct paths did not improve the model fit, and such additional paths were consequently not retained. The final model fit the data well,  $\chi^2(3) = 2.74, p = .433, \chi^2/df = 0.91, RMSEA \approx .000, SRMR = .014, CFI = 1.00$ , and is represented in Figure 2 (see Appendix 3 in Supporting information for all coefficients in the path model).<sup>4</sup> As expected, contact quality was associated with reduced prejudice and hostile ageism. Associations between contact quality and benevolent prejudice and between contact quantity and the different forms of ageism were instead not significant. Prejudice toward older people was negatively associated with both containment behaviours. Benevolent prejudice was positively associated only with using protection devices, while hostile ageism was not associated with any containment behaviours. Contact quality was positively while contact quantity was negatively associated with not going out and meeting other people.

Indirect effects from contact to containment behaviours were next calculated using bootstrapping procedures with 10,000 resamples. In line with Figure 2 findings, there was a positive indirect effect between contact quality and responsible behaviour of using protection devices via prejudice toward older people ( $B = 0.06, 95\% CI = [0.01, 0.11]$ ). Despite the significant associations between contact quality and prejudice and between prejudice and responsible behaviour of not going out and meeting other people, the indirect effect was not significant, as 0 was included



**FIGURE 2** Standardized coefficients of the path model representing associations between intergroup contact, ageism, and containment behaviour. Only significant paths are reported. Correlations between variables at the same level:  $r = .35, p < .001$  between contact quantity and contact quality;  $r = .12, p = .007$  between prejudice and hostile ageism;  $r = .45, p < .001$  between benevolent and hostile ageism;  $r = .05, p = .304$  between the two containment behaviours.  $^*p < .05$ .  $^{**}p < .01$ .  $^{***}p < .001$

in the 95% bootstrap confidence interval ( $B = 0.03$ , 95% CI =  $[-0.02, 0.07]$ ). In line with Figure 1, no other significant indirect effects emerged.<sup>5</sup>

I conducted some additional checks to test robustness of findings. First, the same path model was also tested adding the following control variables which might influence ageism and/or containment behaviours: age, gender, education level (tertiary degree vs. not), professional status (student vs. not), number of people one lives with, number of older people one lives with, and number of people who had covid-19 one knows. Including control variables yielded the same pattern of results. Second, while psychological research generally considers people aged 65 or above as older people, perceptions of age groups differ between individuals, and some respondents younger than 65 might consider older people as their ingroup. Therefore, besides controlling for age, I re-ran the data analysis with only respondents aged 50 or less ( $n = 332$ ), 55 or less ( $n = 351$ ), and 60 or less ( $n = 365$ ), and the results pattern did not change.

## 6 | DISCUSSION

The present correlational study was conducted during the COVID-19 lockdown in Italy and analysed associations between contact with older adults before the pandemic, ageism and containment behaviour aimed at reducing and slowing the spread of the coronavirus. Contact quality (but not contact quantity) with older people was found to be negatively associated with hostile ageism and negative attitudes toward older people, while contact (regardless of the form) was not associated with benevolent ageism. Negative attitudes were in turn associated with less adherence to containment behaviours. Instead, benevolent ageism was positively associated with following behavioural guidelines of using protective devices. Also contact quality and quantity predicted (positively and negatively, respectively) containment behaviour of not going out and seeing other people. These findings confirmed the idea that the COVID-19 pandemic is an intergenerational issue (see Ayalon et al., 2020), empirically showing that contact with and attitudes toward older people (except hostile ageism) are associated with containment behaviours.

Corroborating predictions from the SCM (Fiske et al., 2002), and answering to the call by Cary et al. (2017) of assessing whether their ageism scales predict behaviours, I found a positive association between *benevolent* ageism and a protective behaviour. While Cary et al. suggested to focus on patronizing behaviour which could have harmful consequences for older people (e.g., over-accommodation), here I focused on a protective behaviour which has beneficial consequences not only for older people but for the whole of humanity, ideally contributing to reduce and slow the spread of the coronavirus. Nevertheless, no associations were found between *hostile* ageism and containment behaviours. It is likely that containment behaviours are perceived as behaviours aimed at protecting vulnerable populations, while their counterpart (e.g., going out for non-necessary reasons) might not be seen as willingness to actively harm older people. Otherwise, I did find significant associations between prejudice expressed in terms of favourable versus unfavourable attitudes and containment behaviours. Respondents with more positive attitudes toward older people reported following behavioural guidelines more carefully, suggesting that favourable attitudes toward older people also underlie protective behaviour.

While previous research on contact with older people and ageism considered student samples (e.g., Bousfield & Hutchison, 2010; Drury et al., 2016; Schwartz & Simmons, 2001), this study extended literature on contact with older people by considering a community sample diversified in terms of age of respondents. Moreover, this study confirmed the prominent role of quality rather than quantity of contact with older people in predicting ageist attitudes. Importantly, the current findings showed that quality of contact with older people has a role in containment behaviours, showing positive indirect associations (via prejudice) with using protection devices and positive direct associations with staying at home and not meeting other people. Therefore, high quality relations with older people are not only associated with reduced prejudice, but also with public health behaviours aimed at protecting older people and the human population in general. Hence, this research contributes to literature showing the benefits of



intergroup contact that extend beyond intergroup relations (see e.g., the tertiary transfer effect; Meleady, Crisp, Hodson, & Earle, 2019).

Unexpectedly, contact quantity (when controlling for contact quality and ageism) was associated with more going out and meeting other people. It is possible that respondents with frequent contact with older people before the lockdown, despite the governmental recommendations, continued meeting older people not living with them during the lockdown. A related post-hoc explanation is that respondents with wide and diversified social networks, including also older people, are used to going out often and meeting other people, and that they did not give up this habit during the lockdown. While these are post-hoc explanations, future research should further examine this unexpected association.

Noteworthy, I did not find significant associations between contact and benevolent prejudice, suggesting that such associations might be of mixed nature. On the one hand, intergroup contact is associated with reduced perception of the outgroup as homogeneous (e.g., Islam & Hewstone, 1993), and is therefore likely to be negatively associated with benevolence which implies a homogeneous view of the outgroup as vulnerable and dependent. On the other hand, benevolence still implies a positive orientation toward the outgroup, and is therefore not incompatible with intergroup contact (see Durrheim et al., 2014). Future research could aim at investigating and disentangling associations between contact and benevolent prejudice by considering other intergroup contexts (e.g., gender and ethnic relations) and other contact facets (e.g., negative contact).

Despite these contributions, limitations of the current research need to be acknowledged. First, data were correlational and causality could not be established. For example, respondents with positive attitudes toward older people might have experienced their contacts with older people as more positive. Also, given the mass-media and political depictions of containment behaviours as a means to protect older people, respondents who followed the containment behavioural recommendations might have increased their positive and/or benevolent attitudes toward older people. Future research should use longitudinal and experimental designs to address causality. Second, all measures were self-report, and were therefore at risk of social desirability. This might be true especially for self-reported behaviours: Given the dramatic situation faced by Italy and the world, respondents might have been reluctant to declare when they were not following containment measures. While questions were carefully constructed to be non-judgmental, future research should better use real behavioural measures or observation of behaviour. Third, reliabilities of the two containment behaviours measures were relatively low. While, at the time of data collection, no measures of containment behaviour adapted to the specific moment and context (i.e., the Italian lockdown) existed, future research would do well in using validated measures, which might have higher reliabilities. Fourth, the sample was not representative, as shown for example by the large proportion of female respondents. While I did control for socio-demographic characteristics which might impact ageism and containment behaviours when analysing the data, future research could aim at using representative samples. Finally, the pattern of results might have been specific to the country under investigation (i.e., Italy) and to the time of data collection (i.e., during the lockdown). Indeed, Italy has a larger share of older adults compared to most countries and is facing intergenerational tensions (Mucchi Faina, 2013). Therefore, the age divide is likely to be salient. It would be interesting to test whether such findings replicate in other national contexts.

This research has practical implications regarding intergenerational relations, public health and communication campaigns regarding the pandemic. First, this research indicates that positive intergenerational relations, characterized by lack of prejudice against older people, might be healthy and beneficial for the whole society, with desirable outcomes beyond intergenerational relations but also for public health more generally. Also, this study implies that such positive intergenerational relations can be promoted via high quality of contact with older adults, which should be encouraged and promoted. In times of need to keep physical distance, virtual contacts could help, but there is also the need to reduce the “digital divide” which disadvantaged some older people (see Ayalon et al., 2020; Previtali et al., 2020). Second, the findings suggest that stressing the need to “preserve and protect” older people during the pandemic might have beneficial effects in terms of adherence to behavioural guidelines aimed at reducing the spread of the coronavirus. While benevolent treatment of older adults sometimes has negative consequences for their

health and well-being (e.g., Baltes & Wahl, 1996; Langer & Rodin, 1976), some benevolent messages during a health emergency might be effective for promoting containment behaviour and would therefore be beneficial not only for older people but also for entire communities.

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## CONFLICT OF INTEREST

The author declares that there are no conflicts of interest regarding the publication of this article.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon request. This is specified in footnote 2 of the manuscript.

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## ENDNOTES

- <sup>1</sup> A principal component analysis (KMO = .69; Bartlett's test of sphericity  $\chi^2[66] = 702.90, p < .001$ ) with oblimin rotation was conducted on the 10 items. Based on the screeplot, I extracted two factors explaining 40% of variance, with factor loadings on the respective factor  $\geq .39$ .
- <sup>2</sup> The questionnaire included additional measures. Information about such additional measures can be requested to the author. All data (i.e., about main and additional measures) are available upon request from the author.
- <sup>3</sup> In the final sample, missing data on the relevant items were 1% and were missing completely at random as shown by a non-significant Little's MCAR test,  $\chi^2(1,484) = 1,541.88, p = .144$ . Missing data were imputed with the EM algorithm in SPSS.
- <sup>4</sup> The final model included 27 free parameters. Based on Kline (2011), the final sample size is adequate, given that there were 13.7 participants per free parameter.
- <sup>5</sup> The bootstrap indirect effects were also re-calculated after releasing additional direct paths from contact to using protection devices. Results did not change.

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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