International Journal of Psychology

International Journal of Psychology, 2022
Vol. 57, No. 2, 199–208, DOI: 10.1002/ijop.12800

Stereotype accommodation concerning older people

Adrian Stanciu[1,2]

[1]GESIS – Leibniz Institute for the Social Sciences, Germany
[2]University of Vechta, Germany

From a cultural learning perspective, immigrants can integrate novel stereotypes learned in host countries into pre-existing stereotypes. Research has not previously addressed this possibility in relation to stereotypes specifically about older people. This cross-sectional study examines whether cultural differences concerning stereotypes about older people, duration of stay in the host culture and cultural orientation affect stereotype accommodation amongst immigrants from 40 host countries. In two multinational, country-representative datasets—the European Social Survey (ESS) and the World Value Survey (WVS)—stereotype accommodation is measured along dimensions of warmth and competence and operationalised as absolute differences between the meta-beliefs of immigrants and the corresponding average meta-beliefs of the general population in host countries and countries of origin. Complex regressions that corrected *beta*-coefficients at the individual level for country effects show that more meaningful cross-cultural differences in the stereotype about the social warmth of older people predicted that immigrants' meta-beliefs were less similar to the origin culture than the host culture. This finding is a first step towards understanding the effect that moving from one culture to another has on the stereotypes about old age held by immigrants, and, potentially, how this will impact their own well-being when they become old.

Keywords: Immigrants; Old-age stereotypes; Stereotype accommodation; Cultural adaptation.

A typical stereotype about older people is that they are warm and incompetent (Cuddy et al., 2009). Such beliefs sometimes prevail at the cultural level and represent common knowledge to the local population (Lamont et al., 2015; Levy, 2009). Although recent evidence suggests that immigrants can incorporate stereotypes learned in their host cultures into pre-existing beliefs—which is called the stereotype accommodation hypothesis (Stanciu et al., 2019; Stanciu & Vauclair, 2018)—no previous research has addressed this possibility with regard to old-age stereotypes.

One way to determine whether immigrants have accommodated host-country stereotypes is to ascertain that immigrants have become aware of the beliefs about older people's warmth and competence that prevail in their host cultures, and that their own stereotypes match or are similar to what is common amongst the general population in host countries. In this study, stereotype accommodation is examined through the lens of immigrants' perception of the common old-age stereotype existing in their host culture. I expect this perception to be predicted by factors typically associated with cultural adaptation: cross-cultural differences, duration of stay in the host culture and cultural orientation.

The stereotype about older people across cultures

There is no evidence in the literature that older people are perceived identically across cultures, nor should we expect to find this evidence. The cultural hypothesis (Schwartz, 2006), for instance, suggests that older people are seen more positively in Asian cultures than in Western ones. This is allegedly due to varying teachings that exist in these cultures: Confucian teachings in Chinese and Chinese-influenced cultures emphasise values of collective respect and of honouring the older people amongst younger generations. Western cultures, in contrast, emphasise nurturing independence, which puts the needs of younger generations at the forefront. Löckenhoff

Correspondence should be addressed to Adrian Stanciu, Monitoring Society and Social Change, GESIS-Leibniz Institute for the Social Sciences, B6, 4-5; P.O. Box 12 21 55, 68072 Mannheim, Germany. (E-mail: adrian.stanciu@gesis.org)
Earlier results were presented at the 4th International ESS Conference, Mannheim, Germany.
I would like to thank Maria K. Pavlova and Matthias Lühr for their guidance in the early stages of data analysis.
Data and material associated with the manuscript are made available via https://osf.io/ste6x/.
Open Access funding enabled and organized by Projekt DEAL.

et al. (2009) found that the East–West divide can also be explained by the proportion of people 65 years old or older living in a country. North and Fiske (2015) likewise found, in a meta-analysis based on 37 studies across 23 countries, that demographic contexts can better explain cross-cultural variations in perceptions about older people. These results describe effects that result from cultural teachings and demographics on beliefs about older people that are variable across cultures.

In terms of specific beliefs about older people's attributes of warmth and competence (Fiske et al., 2002), one should be careful not to confound common patterns with the agreement between cultures. Indeed, there is a common tendency across cultures to see older people as warm and incompetent (Cuddy et al., 2009). This results from perceptions that they are not competing over societal resources and that they have a low social status. Nonetheless, countries can differ concerning the structural attributes perceived in older people and consequently in the stereotypic beliefs about the group. Using data from Europe, Abrams et al. (2011) showed that there were greater differences between countries in perceptions about older people's warmth than there were about older people's competence. One explanation (Vauclair et al., 2014) is that older people are perceived as having a higher social status in more modernised societies than in less modernised societies, so that a stereotype of older people as more competent would correspondingly prevail in those more modernised societies.

One should distinguish between cultural and personal stereotypes. Cultural stereotypes are beliefs that prevail in society. Personal stereotypes are individuals' subjective beliefs (Stanciu & Vauclair, 2018). Cultural stereotypes can influence personal stereotypes, but they do not necessarily coincide. Vauclair et al. (2016) found, for instance, a discrepancy between what people subjectively believed and what the cultural old-age stereotype was in the student's country.

An additional distinction should also be noted. Meta-beliefs are beliefs people hold *about* other peoples' stereotypic beliefs (Yzerbyt & Demoulin, 2012). Meta-beliefs take the form of statements like "I *believe* that others believe that older people are…" Subjective beliefs take the form of statements like "I *believe* that older people are…" In empirical work, probing meta-beliefs facilitates the retrieval of the stereotypic content that prevails at the level of a society's culture (Cuddy et al., 2009). From the perspective of individual members of a culture, meta-beliefs reflect individuals' awareness of the stereotypes dominating the culture. In a sense, both types are beliefs held by the individual. Meanwhile, cultural stereotypes are assessed in empirical work as the average scores over meta-beliefs measured in individual participants (Stanciu et al., 2019).

Old-age stereotypes, the literature shows, tend to vary between countries according to demographics and levels of modernisation and individualism. One interpretation is that the literature concerns itself with understanding the causes of cross-cultural variation in age stereotypes. But the literature has not addressed another aspect, which is how immigrants navigate such cross-cultural variation. The present research contributes to this gap in the literature with a study of stereotype accommodation concerning older people in immigrants from several host countries.

Stereotype accommodation

One approach in the literature (Sam & Berry, 2016) to studying changes that occur in immigrants assumes that minority groups (immigrants) must assimilate the majority group's culture (host culture) for stable mental health and functional cultural adaptation. Yet, the approach arguably overemphasises behavioural changes in immigrants. Alternatively, acculturation and cultural adaptation are understood as the process of learning a second culture in addition to the origin culture (Rudmin, 2009). This approach emphasises that immigrants experience a process of adapting to their host cultures, enabling them to learn about the culture-relevant information that operates there and consequently to incorporate that novel information into pre-existing knowledge structures (Wilson et al., 2013).

Stanciu and Vauclair (2018) argued that cross-cultural differences regarding stereotypes are a source of novel content that facilitates cognitive heuristic adaptation in immigrants. Immigrants can incorporate the stereotype content learned in the host countries into pre-existing stereotypes (Stanciu et al., 2019), a process termed *stereotype accommodation*. This approach addresses changes in stereotypes about social groups held by immigrants in general, as opposed to the common approach in the literature of focusing on inter-ethnic stereotypes. Stereotype accommodation is theorised as taking place when immigrants have sufficient opportunities to learn the dominant stereotypes in their host cultures and are motivated to internalise this novel information.

Opportunities to become acculturated in the host culture's dominant stereotypes might increase exponentially with the duration of stay in the culture. In the specialised literature (Geeraert & Demoulin, 2013), duration of stay is a typical predictor for immigrants' cultural adaptation. The explanation is that the longer the immigrants stay, the greater the chances that they will encounter situations that challenge and therefore modify their pre-existing knowledge structures (ways of acting, social skills). Contact here encompasses any form of interaction (direct or indirect) that immigrants might have over the years with local people, the mass media, traditions, history and all other expressions of culture.

Immigrants must orient themselves in terms of adopting the host culture and maintaining their origin culture

(Berry, 1992). They have to find a balance between their dual motivations to become part of the host society and to remain members of their society of origin. A recurring finding in the existing research (e.g., Ward et al., 2001) is that an orientation towards the host culture is associated with greater cultural adaptation than an orientation towards the culture of origin. One conclusion is that immigrants who are open to new experiences, such as befriending native individuals or actively adopting local customs, are more likely to acquire the host country's cultural information than are immigrants who are more conservative in their experiences, preferring to build friendships from within their own ethnic group or to actively avoid local customs (Wilson et al., 2013).

The present research

Evidence for cultural learning is identified in cross-sectional research when immigrant subjects' scores on a construct (emotions, values) are similar to the average score of the host population. For example, De Leersnyder et al. (2011) calculated the average emotional responses of their participants from the local culture and then correlated it with the emotional responses of their individual immigrant subjects. Boehnke and Schiefer (2016) showed that the value preferences of adolescents with an immigrant background were similar in absolute terms to the average value preferences of the host culture's adolescent members. Stanciu et al. (2019) calculated absolute difference scores between immigrants' personal stereotypes and stereotypes in their host and origin cultures and found that Romanian immigrants in Germany and France experienced stereotype accommodation regarding politicians.

Stereotype accommodation is operationalised in the present paper as the degree to which immigrant subjects reproduce the host culture's old-age stereotypes as opposed to those of the origin culture. Some immigrants may reproduce with increasing accuracy the cultural stereotypes of their host cultures, whereas other immigrants may not be able to do so or are better at reproducing the cultural stereotypes of the origin cultures. In the former case, we see evidence for the stereotype accommodation process, and in the latter, the evidence against the process. By this logic, immigrants with accommodated stereotypes have meta-beliefs concerning the local stereotypes about older people that are similar to the average meta-beliefs held by the local population in their host countries (i.e., host-cultural stereotypes) and different from the average meta-beliefs held by the local population in their countries of origin (i.e., origin-cultural stereotypes). Conversely, immigrants with non-accommodated stereotypes have meta-beliefs that are different from the host-cultural stereotypes and similar to the origin-cultural stereotypes (see also the section "Measurement").

Hypotheses

According to Stanciu and Vauclair (2018), differences in the cultural stereotypes of host and origin cultures must be meaningful for immigrants' stereotype accommodation to occur. One way to operationalise this is as effect size coefficients of the difference between the old-age stereotypes that exist in immigrants' host countries and the stereotypes that prevail in their countries of origin. Measures of effect size like Cohen's *d* are used in the literature to determine how meaningful (worthwhile) a found effect is for the studied population relative to the samples used and standard deviation around the compared means (see Appendix A for Cohen's *d* formula). Widely accepted thresholds specify effects with a small (.20), medium (.50) or large impact (.80) on the population of interest. I use this as a property of individual participants, since each belongs to a unique combination of host and origin countries.

The present four hypotheses concern predictions of values on a perception score, which is a measure of the absolute difference between the immigrant and the host country, minus the absolute difference between the immigrant and the origin country, on stereotypes about older people. In other words, it measures how much the immigrant has shifted from the origin country to the host country in accommodating stereotypes about older people.

The first hypothesis is that cultural differences concerning stereotypes about older people that are associated with greater effect sizes (more meaningful differences) will predict smaller or negative values on the perception score (Hypothesis 1).

The second hypothesis is that a longer stay in the host country will predict smaller or negative values on the perception score (Hypothesis 2).

Additional hypotheses probe the effects of cultural orientation on stereotype accommodation. The present datasets do not contain information on immigrants' cultural orientation, meaning that a proxy measure must be used. One possibility stems from work on value preferences measured in Shalom Schwartz's theory (Schwartz, 2012). Schwartz defines value preferences as motivating action and theorises 10 universal values that are organised in a circular structure depending on the interrelations of motivational compatibility. These values pertain to four underlying tendencies that form a two-dimensional-like space: openness to change versus conservation, and self-transcendence versus self-enhancement. In this theory, individuals attribute similar priorities to values with compatible motivations and opposing priorities to values with antagonistic motivations. From Schwartz's formulations, the dyad openness to change versus conservation carries substantial meaning similar to contents found in

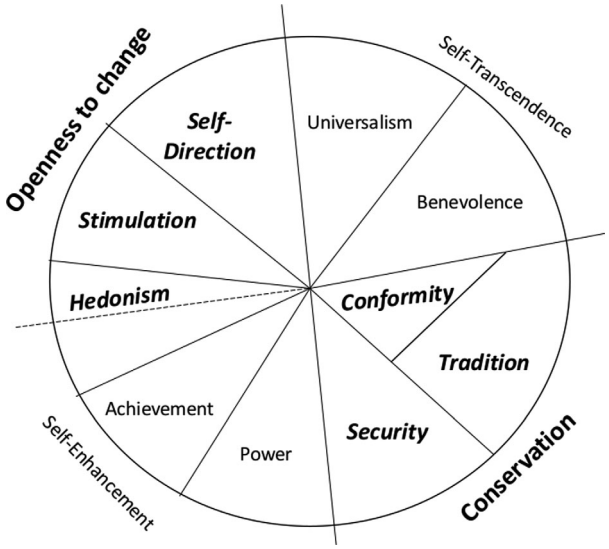

Figure 1. Value circumplex after Shalom Schwartz.

cultural orientation literature (e.g., Berry, 1992; see bold emphasised in Figure 1).

The third and fourth study hypotheses are that openness to change will predict smaller or negative values on the perception score (Hypothesis 3) and conservation will predict higher or positive values on the perception score (Hypothesis 4).

METHOD

Data and analytic strategy

The present hypotheses were tested first against data of European Social Survey round 4 (ESS 4; European Social Survey Data Round 4, 2008) and then against data of World Value Survey round 6 (WVS 6; Inglehart et al., 2014); this was performed for the purposes of corroborating results. These surveys are country-representative and periodically monitor aspects such as values, attitudes and societal conditions in multiple countries. The data collection procedure in both cases follows strict guidelines to ensure equivalent measurement and translations across countries. To my knowledge, there is no other data source available that contains information that may be used in a cross-cultural study of the stereotype accommodation hypothesis concerning older people.

The present analyses were conducted with samples of immigrants alone, although data from the local population was used in creating the averaged meta-beliefs scores (i.e., host- and origin-cultural stereotypes). Immigrant status was readily available as self-reported in ESS 4 and WVS 6. Immigrants' country of origin was self-reported in ESS 4. A proxy based on tabulating ethnic identification with the first language spoken at home was used to identify the country of origin of immigrants in WVS 6 (see Measurement).

Only immigrant participants with available information regarding both their host and origin countries were included. Participants matching this selection criterion were present in 29 countries in the ESS 4 (Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, the United Kingdom, Greece, Croatia, Hungary, Ireland, Israel, Latvia, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Sweden, Slovenia, Slovakia, Turkey, and Ukraine) and in 15 countries in the WVS 6 (Azerbaijan, Armenia, Brazil, Belarus, Cyprus, Estonia, Germany, Ghana, Kazakhstan, Kyrgyzstan, New Zealand, Singapore, Sweden, Ukraine, and Uzbekistan).

Immigrants were nested in host countries. Decomposition of the explained variance at each level of analysis requires at least 30 macro-units (countries) with at least 30 micro-units (individuals) each (McNeish, 2014). This was not the case here, nor was it the intention. The alternative procedure, of correcting regression estimators for clustering effects (complex regressions), produces reliable regression estimates when the goal is not the multilevel decomposition of explained variance (Muthén & Muthén, 2017). Complex regressions are also a viable alternative because of their flexibility in including singletons (countries represented by only one individual immigrant) in the model estimation (McNeish & Stapleton, 2016).

Distinct complex regressions tested the present hypotheses in M*plus* v.7 (Muthén & Muthén, 2017). Separate models were estimated for perception scores for warmth and competence attributes. Data were weighted using the dataset-specific weighting coefficients and listwise deletion was applied to missing values. I decided against imputing missing data for two reasons. First, measures of interest (perception scores and meaningful cultural differences) were calculated beforehand with information from local populations, which cannot be estimated with the immigrant data. Second, a full-information-maximum-likelihood (FIML) approach—which uses all available information in estimating missing data—resulted in model misspecification due to the large number of estimators to be predicted. Table 1 presents the overall sample description.

Measurements in ESS 4

Meta-beliefs

Meta-beliefs were defined as participants' responses regarding how people over the age of 70 were viewed in their societies (e.g., Portugal) in terms of their friendliness and competence (0 = *not at all likely to be viewed that way*, 4 = *very much likely to be viewed that way*).

TABLE 1
Descriptive statistics of the immigrant samples

	Total	
	ESS 4	*WVS 6*
Age	49.93 (18.08)	53.97 (17.70)
% Female	56.6%	57.5%
Years of education/age education completed	12.93 (4.13)	33.87 (18.98)
Openness to change	−.29 (.62)	−.49 (.73)
Conservation	.15 (.63)	.57 (.81)
Duration of stay[a]	5	i.n.r.
*d*W	.20 (.38)	−.01 (.23)
*d*C	−.01 (.38)	−.06 (.35)
Perception score W	−.06 (.34)	−.04 (.23)
Perception score C	.01 (.01)	−.02 (.35)

Note: 5 = arrived in host country more than 20 years ago. i.n.r. = information not recorded in this dataset. Standard deviations in parentheses. *d*W and *d*C = meaningful cultural differences on warmth and competence. Perception score on Warmth and Competence.
[a]Mode reported.

Perception score

Perception score was assessed via absolute differences between meta-beliefs of immigrants and the corresponding average meta-beliefs of the general population in immigrants' host and origin countries (see paragraph below; difference scores, in short). For each immigrant, the average meta-belief score in the host country was subtracted from the immigrant's own meta-belief, and, separately, the average meta-belief score in the country of origin was subtracted from the immigrant's own meta-belief. Finally, a "perception score" was created in that the difference score in relation to the country of origin was subtracted from the difference score in relation to the host country (see formula 1). Two perception scores were created, one each for perceptions of warmth and competencies in older people. Smaller or *negative* values on a perception score index were interpreted as an immigrant having meta-beliefs that were more dissimilar from the origin-cultural stereotypes than they were dissimilar from the host-cultural stereotypes—these serve as cross-sectional evidence for stereotype accommodation.

Average meta-belief scores were calculated for the warmth-competence attributes in participants who reported being born in the host or origin countries of the immigrant participants (for a detailed breakdown of the data, see Tables 1 and 2 of the Supplement). Immigrants themselves were excluded from this calculation. If an immigrant's country of origin was not present in one dataset, but data were available in the other dataset, the available scores were used. For example, I used the WVS 6 scores for the origin-cultural stereotypes of Algerian immigrant participants surveyed in the ESS 4.

$$\text{Perception score} = \left|\bar{x}_{\text{host}} - x_i\right| - \left|\bar{x}_{\text{origin}} - x_i\right| \quad (1)$$

$\bar{x}_{\text{host}}$ is the constant, average meta-belief in the host population, $\bar{x}_{\text{origin}}$ is the constant, average meta-belief in the origin population and x_i is the variable, immigrant's meta-belief.

Meaningful differences

For each participating immigrant, Cohen's *d*s were calculated for the difference in meta-beliefs of the local population in immigrants' host and origin countries. Separate scores were calculated for warmth and competence. This is a variable operating at the individual level.

Duration of stay

Participants born in other countries had to report how long ago they first came to live in their current country of residence (1 = *within last year*, 2 = *1 to 5 years ago*, 3 = *6 to 10 years ago*, 4 = *11 to 20 years ago*, and 5 = *more than 20 years ago*). Two dummy variables are created and used in the analyses: short stays (categories 1 and 2 versus category 5) and stays of medium length (categories 3 and 4 versus category 5). (Not available in WVS 6.)

Value priorities

Values were measured with the PVQ-21 instrument (Schwartz, 2003; WVS 6 has a 10-item version). Study participants read 21 descriptions of a fictive person in terms of value importance and then indicated how similar the fictive person was to them: For example, thinking up new ideas and being creative is important to him/her. He/She likes to do things in his/her own original way (1 = *very much like me*, 6 = *not like me at all*).

Six items (three items in WVS 6) pertaining to self-direction, stimulation and hedonism were used for the openness-to-change index ($\alpha = 0.77$; $\alpha = 0.62$ in WVS 6). Six items (three items in WVS 6) pertaining to security, conformity and tradition made for the conservation index ($\alpha = 0.72$; $\alpha = 0.64$ in WVS 6). The recommended MRAT scale correction was applied.

Covariates

Gender was self-reported as female or male, and was included to correct for possible gender differences in terms of personality and life experience. The *chronological age* of participants was recorded in years, and was included to give equal weight to participants at different stages in the life span. *Education* was assessed in years of full-time education (in WVS 6, it was the age when education was completed), and was used as one way to account for possible structural differences concerning acquired knowledge associated with lower predispositions to rely on cognitive heuristics.

Measurements in WVS 6

Unless otherwise specified, all measurements were identical to the ones in the ESS 4 dataset.

Origin-country immigrants

Since there was no available information on immigrants' countries of origin, a proxy was created whereby the immigrants' self-identification as a member of an ethnic group was cross-tabulated with the first language spoken at home. Tabulations valid and intuitive at the face value–level were used. Tabulations of African/Black ethnicity and English spoken at home for immigrants in the US were discarded. Tabulations of White/Caucasian ethnicity and Russian spoken at home were accepted as a proxy for Russia being the home culture for immigrants in the Ukraine.

RESULTS

Estimation of stereotype accommodation was controlled for participants' chronological age, education and gender. Results are presented in Table 2.

ESS 4

Data from ESS 4 provided evidence in support of Hypothesis 1, in that meaningful cultural differences in the warmth dimension predicted smaller or negative values on the perception score index computed for warmth attributes. ESS 4 data offered no support for Hypothesis 2: duration of stay did not contribute in any systematic way to any of the perception score indices. The same dataset provided supporting evidence for Hypothesis 3. Smaller and negative values on the perception score in terms of warmth attribute were predicted by a greater prioritisation of openness to change. But there was no support for hypothesis 4 that conservation would increase perception scores.

WVS 6

Data from WVS 6 provided evidence in support of Hypothesis 1, in meaningful cultural differences predicted smaller or negative values on the perception score index calculated for warmth attributes. Hypothesis 2 could not be tested in this dataset due to limitations on data availability. No evidence could be found regarding hypotheses 3 and 4.

DISCUSSION

Using two multinational survey datasets, I used a cross-sectional study approach to examine whether immigrants experienced stereotype accommodation concerning older people' warmth and competence. Specifically, I proposed that stereotype accommodation might manifest as immigrants' perception of the dominant cultural stereotypes in their host countries. One consistent finding across the datasets was that when there were more meaningful cross-cultural differences in the stereotype of older people's warmth, this contributed to stereotype accommodation regarding older people's warmth, even after controlling for age, education and gender.

Perception of host- and origin-cultural beliefs about older people

The present findings show that immigrants can reproduce stereotypes about older people in host cultures when

TABLE 2
Perception of cultural stereotypes about older people's warmth and competence

	ESS 4		*WVS 6*	
	W β (SE)	*C β (SE)*	*W β (SE)*	*C β (SE)*
Age	.02 (.04)	−.02 (.03)	.24 (.16)	−.15 (.16)
Female	.01 (.03)	.02 (.03)	.04 (.03)	−.01 (.05)
Education years/age education complete	.01 (.03)	.01 (.04)	−.20 (.14)	.01 (.14)
Short stay (vs. long stay)	−.03 (.04)	−.06 (.04)	i.n.r.	i.n.r.
Medium stay (vs. long stay)	−.07 (.04)	.01 (.01)	i.n.r.	i.n.r.
Openness to change	−.01 (.06)	−.13 (.06)*	.04 (.05)	.02 (.09)
Conservation	−.05 (.03)	−.10 (.05)	−.01 (.05)	.11 (.08)
*d*W	−.17 (.08)*	*na*	−.44 (.15)**	*na*
*d*C	*na*	−.05 (.03)	*na*	−.11 (.15)
R^2	3.6%	1.4%*	20.2%	3.6%
N	3360	3385	529	513

Note: *β* = standardised regression coefficients. SE = standard error. W = Warmth, C=Competence. *d*W and *d*C = meaningful cultural differences regarding stereotypes about older people's warmth and competence. Standardised coefficients reported. na = not applicable; Regression models were estimated separately for each stereotype dimension thus of interest were only associations between *d*W and Perception Score on warmth and between *d*C and Perception Score on competence. i.n.r. = information not recorded in this dataset. $^{**}p < .01$, $^{*}p < .05$.

the host-country stereotypes are more positive than the stereotypes that prevail in their countries of origin. At this stage, however, the data does not allow for a systematic analysis as to why this happened; A longitudinal study approach can be more adequate for the task. One can nonetheless speculate about possible explanations. For instance, the socioemotional selectivity theory posits that older people are more likely to remember, pay attention and engage with positive rather than negative information because time restrictions can shift the focus of goals from experiencing novelty in youth to achieving emotional stability in middle age and beyond (Reed et al., 2014). Recent evidence suggests that it is not the chronological age per se that dictates this shift, but rather the actual perception of time restrictions. Under imagined or induced time restrictions, even younger people can show increased predisposition for positive information regarding older age (Barber et al., 2016).

The effects were notable only concerning warmth attributes. The literature has found that when people think about others, they first identify their *intentions* (perceptions of warmth), and secondly their *agency* (perceptions of competence) (Richetin et al., 2012). Furthermore, and as a reminder, perceptions of older people's warmth follow from perceptions that they are not competitive over available societal resources (Fiske et al., 2002). This finding thus suggests that the extent to which a host society treats the needs and demands of different age groups as equal is a plausible predictor of how immigrants will modify their pre-existing negative beliefs about (older) people. Equally interesting, however, is the non-finding regarding competence attributes. One possibility is that in the minds of immigrants these attributes are strongly and deeply associated with age-associated decline (e.g., weakening functional and cognitive abilities), which might be less malleable once learned.

Value priorities were not reliable for probing immigrants' cultural learning orientation. One explanation is that stereotype accommodation regarding older people is context-sensitive. Each value typology has specific goals that motivate behaviour, independent of contexts and situations (Schwartz, 2012). Cultural learning, on the other hand, is highly context-specific and therefore would require a more thorough assessment. Immigrants can experience the acculturation process distinctly across domains of life, such as in the areas of social contacts and religion/spirituality (Arends-Tóth & van de Vijver, 2004). When it comes to gaining a sense of the beliefs about social groups prevailing in the host culture, it must be acknowledged that each social group's beliefs can vary across life domains. Recent work suggests that eight life domains, including social contacts and religion/spirituality, are relevant in the construction of old-age stereotypes (Kornadt & Rothermund, 2015). It is still possible that immigrants' cultural learning orientation influences their stereotype accommodation regarding older people. It may do so differently, however, across different domains of life.

Implications of the study

The findings reported here extend the theoretical considerations of the stereotype embodiment theory (Levy, 2009) and the theory of age-based stereotype threat (Lamont et al., 2015) with its initial evidence that, when acculturating, immigrants can integrate stereotypical content learned in their host countries into pre-existent beliefs. Local populations may have fewer choices than immigrants in internalising or being imprinted with their local culture's beliefs about older people. Local individuals are born into stereotypes of their origin culture and represent latent knowledge for them, which can be activated or expressed under specific circumstances (e.g., Stanciu, 2020). Immigrants, on the other hand, are exposed to a set of beliefs that predominate their host cultures and thus can actualize their pre-existent beliefs in ways that correspond to their current living context and personal goals (see also immigrants' cultural adaptation, Sam & Berry, 2016).

These theoretical associations also offer viable tools for the health sector in its approach to the care of immigrant populations. Cultural beliefs about older people can impact the psychological and physiological health of older people. Nonetheless, researchers have not, to date, looked at the way this factor specifically affects immigrants. Immigrants are special populations in the sense that they are socialised into the cultural beliefs of their origin cultures and then subsequently acculturate into the beliefs of their host cultures. This suggests that the health of older immigrants might be affected by their awareness of *host*-cultural stereotypes, and the present findings indicate that immigrants in general seem susceptible to integrating positive content.

The self-image of older immigrants is an important factor that contributes to their well-being and readiness to seek professional help for medical concerns. Knowing that immigrants can incorporate the old-age stereotypes that are dominant in their host cultures is a crucial step towards developing strategies for educating immigrants (and populations with a migration background) away from any negative beliefs about older people that had been internalised from their countries of origin and are in contrast with the more positive beliefs that exist in host countries. Sensibilisation campaigns that address the negative effects of old-age stereotypes in the general population have been found to have a relevant impact. The present findings thus hint at a reality in which societies expecting to accommodate a considerable number of older immigrants might benefit from programmes that aim to combat ageism in a culturally sensitive manner (also see Stanciu, 2020).

Limitations and future research directions

This study takes a cross-sectional approach and operationalizes immigrants' stereotype accommodation as perception inaccuracy. This approach has been previously applied in the literature (Boehnke & Schiefer, 2016), but it cannot test for causality. A related issue is that the available datasets only contained information regarding *meta*-beliefs and thus it was impossible to test how proximal (similar) the *subjective* beliefs held by immigrants were with the common beliefs of the local population (Stanciu et al., 2019). Meta-beliefs probe the stereotype content that is latent in people's minds and not whether the individuals also endorse it (Yzerbyt & Demoulin, 2012). This distinction might be particularly intriguing to address further because new evidence suggests that subjective beliefs held by people are not necessarily consistent with beliefs prevailing in their cultures (Vauclair et al., 2016). One way future work might challenge these limitations is to repeatedly measure stereotypes about older people held by immigrants before and at various times after their arrival in their host cultures.

One additional issue not addressed in this article are the effects that contact (quantity and quality) with older people might have on immigrants' old-age stereotype accommodation. This refers to an approach that draws on the contact hypothesis, which posits that the prejudices of prejudiced individuals are attenuated through contact with members of the group against whom those individuals hold prejudices (Dovidio et al., 2011). This approach aims to combat existing negative stereotypes about older people and thus works with the underlying assumption that (some) people hold beliefs that are detrimental to the well-being of older people. This study takes a slightly different perspective, however, in that rather than focusing on the impact of stereotypes on others, it focuses on the effects that stereotypes might have on the perceiver him or herself while navigating the cultural reality of two countries. Questions yet to be addressed are therefore whether contact of immigrants with older people in the origin country affects their old-age stereotypes differently than contact with older people in the host country.

Much of the data had to be discarded for incompatibility reasons and in some instances, this led to using single cases in the model estimation. Furthermore, the data did not contain sufficient information to decompose the explained variance in parts due to individual-level differences and cultural-level influences. Moreover, for the WVS, the critical variable "country of origin" had to be approximated based on available information on the languages immigrants spoke at home along with self-identified cultural belonging, and thus it is possible that study participants actually originated in other countries.

Finally, the specified models offer an overall impression regarding future research directions. Of the four models, in only one instance was the explained variance in the outcome variable statistically significant (Warmth Perception Score in ESS data, $R^2 = 1.4\%$, $p < .05$). The explained variance in the three remaining models varied and yet, in no other instance was the R^2 statistically significant. At this stage, it is inconclusive whether the combined predictors are adequate or inadequate in explaining the perception scores. The present findings nevertheless show robust evidence for the effects of meaningful cultural differences on immigrants' perception score on warmth, as indicated by (a) the statistical significance of the regression coefficients, and (b) corroboration of the finding in two independent datasets. I thus encourage any subsequent testing of the presently specified model, especially in independent datasets.

CONCLUSION

This study has found that immigrants are more likely to reproduce host-cultural stereotypes about older people if the content of those stereotypes is more positive than the stereotypes that prevail in their culture of origin. An implication of this result is that new avenues for research on ageing in immigrant populations are needed, particularly ones that consider the effects of both origin and host cultural stereotypes about older people.

Manuscript received September 2020
Revised manuscript accepted July 2021
First published online August 2021

SUPPORTING INFORMATION

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

Appendix S1. Formula to calculate Cohen's d effect size.

Table S1. Operationalization of "Meaningful Cultural Differences"—Stereotypes of Older People in Immigrants' Host and Origin Countries, ESS 4 Data.

Table S2. Operationalization of "Meaningful Cultural Differences" - Cultural Stereotypes of Older People in Immigrants' Host and Origin Countries, WVS 6 Data.

Table S3. Intercorrelations in ESS 4 (Below Main Diagonal) and in WVS 6 (Above Main Diagonal).

REFERENCES

Abrams, D., Russel, C.-M., & Swift, H. (2011). *Ageism in Europe. Findings from the European Social Survey*. London: Age UK.

Arends-Tóth, J., & van de Vijver, F. J. R. (2007). Acculturation attitudes: A comparison of measurement methods. *Journal of Applied Social Psychology*, *37*, 1462–1488. https://doi.org/10.1111/j.1559-1816.2007.00222.x

Barber, S. J., Opitz, P. C., Martins, B., Sakaki, M., & Mather, M. (2016). Thinking about a limited future enhances the

positivity of younger and older adults' recall: Support for socioemotional selectivity theory. *Memory & Cognition*, *44*, 869–882. https://doi.org/10.3758/s13421-016-0612-0

Berry, J. W. (1992). Acculturation and adaptation in a new society. *International Migration*, *30*, 69–85. https://doi.org/10.1111/j.1468-2435.1992.tb00776.x

Boehnke, K., & Schiefer, D. (2016). Horizontal transmission of value orientations in adolescence. In C. Timmerman, N. Clycq, M. Mc Andrew, A. Balde, L. Braeckmans, & S. Mels (Eds.), *Youth in education. The necessity of valuing ethnocultural diversity* (pp. 27–45). Routledge.

Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J.-P., Bond, M. H., Croizet, J. C., Ellemers, N., Sleebos, E., Htun, T. T., Kim, H. J., Maio, G., Perry, J., Petkova, K., Todorov, V., Rodríguez-Bailón, R., Morales, E., Moya, M., … Ziegler, R. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *The British Journal of Social Psychology*, *48*, 1–33. https://doi.org/10.1348/014466608X314935

De Leersnyder, J., Mesquita, B., & Kim, H. S. (2011). Where do my emotions belong? A study of immigrants' emotional acculturation. *Personality & Social Psychology Bulletin*, *37*, 451–463. https://doi.org/10.1177%2F0146167211399103

Dovidio, J. F., Eller, A., & Hewstone, M. (2011). Improving intergroup relations through direct, extended and other forms of indirect contact. *Group Processes & Intergroup Relations*, *14*, 147–160. https://doi.org/10.1177/1368430210390555

European Social Survey Round 4 Data. (2008). Data file edition 4.4 [dataset]. Norway: Norwegian Social Science Data Services—Data Archive and Distributor of ESS Data.

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878–902. https://doi.org/10.1037//0022-3514.82.6.878.

Geeraert, N., & Demoulin, S. (2013). Acculturative stress or resilience? A longitudinal multi- level analysis of sojourners' stress and self-esteem. *Journal of Cross-Cultural Psychology*, *44*, 1241–1262. https://doi.org/10.1177/0022022113478656

Inglehart, R., Haerpfer, C., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, et al. (Eds.). (2014). *World Values Survey: Round six—country-pooled data file version [dataset]*. JD Systems Institute. www.worldvaluessurvey.org/WVSDocumentationWV6.jsp

Kornadt, A. E., & Rothermund, K. (2015). Views on aging: Domain-specific approaches and implications for developmental regulation. *Annual Review of Gerontology and Geriatrics, (February 2015)*, *35*, 121–144. https://doi.org/10.1891/0198-8794.35.121

Lamont, R. A., Swift, H. J., & Abrams, D. (2015). A review and meta-analysis of age-based stereotype threat: Negative stereotypes, not facts, do the damage. *Psychology and Aging*, *35*, 180–193. http://doi.org/10.1037/a0038586

Löckenhoff, C. E., De Fruyt, F., Terracciano, A., McCrae, R. R., De Bolle, M., Costa, P. T., Aguilar-Vafaie, M. E., Ahn, C., Ahn, H., Alcalay, L., Allik, J., Avdeyeva, T. V., Barbaranelli, C., Benet-Martinez, V., Blatny, M., Bratko, D., Brunner-Sciarra, M., Cain, T. R., Crawford, J. T., … Yik, M. (2009). Perceptions of aging across 26 cultures and their culture-level associates. *Psychology and aging*, *24*(4), 941. https://psycnet.apa.org/doi/10.1037/a0016901

Levy, B. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in Psychological Science*, *18*, 332–336. https://doi.org/10.1111/j.1467-8721.2009.01662.x

McNeish, D. M. (2014). Modelling sparsely clustered data: Design-based, model-based, and single-level methods. *Psychological Methods*, *19*, 552–563. https://doi.org/10.1037/met0000024

McNeish, D. M., & Stapleton, L. M. (2016). The effect of small sample size on two-level model estimates: A review and illustration. *Educational Psychology Review*, *28*, 295–314. https://doi.org/10.1007/s10648-014-9287-x

Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide*. Muthén & Muthén.

North, M. S., & Fiske, S. T. (2015). Modern attitudes toward older adults in the aging world: A cross-cultural meta-analysis. *Psychological Bulletin*, *141*, 993–1021. https://doi.org/10.1037/a0039469

Reed, A. E., Chan, L., & Mikels, J. A. (2014). Meta-analysis of the age-related positivity effect: Age differences in preferences for positive over negative information. *Psychology and Aging*, *29*, 1–15. https://doi.org/10.1037/a0035194

Richetin, J., Durante, F., Mari, S., Perugini, M., & Volpato, C. (2012). Primacy of warmth versus competence: A motivated bias? *The Journal of Social Psychology*, *152*, 417–435. https://doi.org/10.1080/00224545.2011.623735

Rudmin, F. (2009). Constructs, measurements and models of acculturation and acculturative stress. *International Journal of Intercultural Relations*, *33*, 106–123. https://doi.org/10.1016/j.ijintrel.2008.12.001

Sam, D. L., & Berry, J. W. (Eds.). (2016). *The Cambridge handbook of acculturation psychology* (2nd ed.). Cambridge University Press.

Schwartz, S. H. (2003). A proposal for measuring value orientations across nations. Chapter 7 in the Questionnaire Development Package of the European Social Survey. http://www.europeansocialsurvey.org/index.php?option=com_docman&task=doc_view&gid=126&Itemid=80

Schwartz, S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology*, *5*, 137–182.

Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, *2*, 1–20. https://doi.org/10.9707/2307-0919.1116

Stanciu, A. (2020). Value systems as motivational forces for the suppression of ageism towards older people amongst young adults: An analysis across countries. *Ageing & Society*, 1–20. https://doi.org/10.1017/S0144686X20001257

Stanciu, A., & Vauclair, C. M. (2018). Stereotype accommodation: A socio-cognitive perspective on migrants' cultural adaptation. *Journal of Cross-Cultural Psychology*, *49*, 1027–1047. https://doi.org/10.1177/0022022118777300

Stanciu, A., Vauclair, C. M., & Rodda, N. (2019). Evidence for stereotype accommodation as an expression of immigrants' socio-cognitive adaptation. *International Journal of Intercultural Relations*, *72*, 76–86. https://doi.org/10.1016/j.ijintrel.2019.07.003

Vauclair, C. M., Hanke, K., Huang, L. L., & Abrams, D. (2016). Are Asian cultures really less ageist than Western ones? It

depends on the questions asked. *International Journal of Psychology*, *52*, 136–144. https://doi.org/10.1002/ijop.12292

Vauclair, C. M., Marques, S., Lima, M. L., Bratt, C., Swift, H. J., & Abrams, D. (2014). Subjective social status of older people across countries: The role of modernization and employment. *Journals of Gerontology, Series B Psychological Sciences and Social Sciences*, *70*, 650–660. https://doi.org/10.1093/geronb/gbu074

Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock*. London: Routledge.

Wilson, J., Ward, C., & Fischer, R. (2013). Beyond culture learning theory: What can personality tell us about cultural competence? *Journal of Cross-Cultural Psychology*, *44*, 900–927. https://doi.org/10.1177/0022022113492889

Yzerbyt, V. Y., & Demoulin, S. (2012). Metacognition in stereotypes and prejudice. In P. Brinol & K. G. DeMarree (Eds.), *Social metacognition* (pp. 243–162). Psychology Press.