




“Old” Does Not Always Mean “Incompetent”: The Implication of Respect in the Perception of Older People Subtypes

Valérien Boudjemadi¹ , Wojciech Świątkowski², Luc Vieira³, Antonin Carrier⁴ and Odile Rohmer¹

¹Faculty of Psychology, University of Strasbourg, Strasbourg, France, ²Institute of Psychology, University of Lausanne, Lausanne, Switzerland, ³Institute of Psychology, University of Paris, Paris, France and ⁴Faculty of Psychology, University of Bordeaux, Bordeaux, France

Article

Cite this article: Boudjemadi V, Świątkowski W, Vieira L, Carrier A, & Rohmer O. (2023). “Old” Does Not Always Mean “Incompetent”: The Implication of Respect in the Perception of Older People Subtypes. *Canadian Journal on Aging / La Revue canadienne du vieillissement* 42(3), 475–484. <https://doi.org/10.1017/S0714980823000107>

Received: 11 January 2021

Accepted: 13 July 2022

Mots-clés:

Vieillesse; âgisme; personnes âgées; sous-types; modèle du contenu des stéréotypes; hiérarchie sociale; respect

Keywords:

Aging; ageism; older people; subtypes; stereotype content model; social hierarchy; respect

Corresponding author:

La correspondance et les demandes de tirés-à-part doivent être adressées à : / Correspondence and requests for offprints should be sent to: Valérien Boudjemadi, Maître de Conférences (Ph.D.) Faculté de Psychologie Université de Strasbourg 12 rue Goethe 67000 Strasbourg France (Email: boudjemadi@unistra.fr)

Résumé

À partir du modèle du contenu des stéréotypes, le présent travail a examiné l'hétérogénéité des stéréotypes concernant les personnes âgées. Nous avons cherché à élargir l'éventail des prédicteurs de la compétence perçue chez les personnes âgées en y incluant le respect en plus du statut social. Dix-sept sous-types ont été sélectionnés dans une étude pilote ($n = 77$). L'étude principale a été menée auprès d'un échantillon français ($n = 212$) qui a participé à un sondage d'autoévaluation. L'analyse typologique a montré que trois combinaisons de chaleur et de compétence caractérisent des sous-types distincts de personnes âgées. Les analyses de corrélation et de régression ont montré que la compétence est un prédicteur négatif de la chaleur et que le statut social est un prédicteur positif de la compétence. Dans un nombre important de groupes cibles, le respect a joué un rôle plus important que le statut dans la perception de la compétence. En résumé, cette étude suggère que la compétence perçue des personnes âgées n'est pas seulement liée au statut socio-économique perçu, mais aussi au degré de respect qu'elles reçoivent.

Abstract

Building on the Stereotype Content Model, the present work examined the heterogeneity of the stereotypes about older people. We aimed to broaden the range of perceived predictors of competence in older people and included respect in addition to status. Seventeen subtypes were selected in a pilot study ($n = 77$). The main study was conducted on a French sample ($n = 212$) that took part in a self-reported survey. Cluster analysis showed that specific older people subtypes appear in three combinations of warmth and competence. Correlation and regression analyses showed that competence negatively predicts warmth, and that status positively predicts competence. In a substantial number of target groups, respect played a more important role than status in the perception of group competence. To sum up, this study suggests that the perceived competence of older people is not only related to perceived socio-economic status but also to the amount of respect they receive.

According to the World Health Organization (2017), there are more than 900,000,000 people over the age of 60 worldwide, which represents approximately 12 per cent of the world population. This number is expected to double by 2050, when one in five people will be 60 years old or older. Almost all countries are aging, particularly in the Western world. For example, the proportion of older people will reach 35 per cent of the population in North America and Europe (United Nations, 2017). Some studies suggest that the constant increase in the proportion of older people is a major predictor of prejudice, stereotypes, and discriminatory behaviours toward older individuals (Boudjemadi, Posner, & Bastart, 2022; Marques et al., 2020; North & Fiske, 2015).

As a consequence, ageism has become a prevalent phenomenon in Europe (see Abrams, Russell, Vauclair, & Swift, 2011; European Social Survey, 2020; Swift et al., 2018). A recent survey showed that the proportion of people who described having experienced unfair treatment because of their age was higher (35%) than the proportion of those who described having experienced unfair treatment based on gender (25%) or ethnicity (17%). Furthermore, 39 per cent of people reported having experienced disrespect and 29 per cent thought that they were treated badly because of their age. Such a high prevalence is particularly noticeable in France, where 68 per cent of the surveyed population indicated that age discrimination is a very serious or a quite serious problem.

It seems that these statistics and the current demographic trend do not bode well for older people (Boudjemadi et al., 2022; Fiske, 2015; Marques et al., 2020). However, many authors point out that social perception does not narrow to a homogeneous appraisal of a social group. In other words, the same social group can be associated with several heterogeneous stereotypical beliefs (e.g., women, Eckes, 1994; Native Americans, Burkley, Durante, Fiske, Burkley, & Andrade, 2017). Past research suggested that some older people could be considered positively and as models to emulate (Hummert, 1999). In France, studies have mainly focused on the older people as a homogeneous social category and showed them to be a depreciated and dehumanized group, mainly associated with decay and death (e.g., Boudjemadi, Demoulin, & Bastart, 2017; Boudjemadi et al., 2022). In the present research, we sought to investigate whether older people could be perceived positively and elicit respect in French society.

The first aim of this work was to investigate the complexity in stereotypes of older people as held by young people in France. Drawing from the model of hierarchical organization of information in memory (Rosch, 1978), we assumed that a typical stereotype is a broad category that includes specific lower-level stereotypes, hereafter referred to as subtypes. Focusing on the stereotype content model (SCM) (Fiske, Cuddy, Glick, & Xu, 2002), we examined the heterogeneity of these subtypes based on warmth and competence dimensions. We investigated their determinants and, more specifically, the combined role played by status and respect in the perception of older people's competence. This article contributes, in two ways, to the literature on how older people are perceived. First, we bring to light the wide diversity of stereotypes of older people and second, we emphasize the role played by respect in the social perception of this age group.

SCM and Older People

In the last few decades, a large body of research has focused on two fundamental dimensions underlying the contents of cultural beliefs and social judgments (Abele, Ellemers, Fiske, Koch, & Yzerbyt, 2021). In this literature, the SCM is particularly useful in understanding attitudes toward social groups (Fiske, 2018). The SCM stresses that two fundamental dimensions – warmth and competence – underpin the perception of social groups. Warmth refers to the intentions a social group may have toward the perceiver, whereas competence refers to the ability to fulfil these intentions (Abele et al., 2021; Fiske et al., 2002). Judgments on these two dimensions combine to form four prototypical portrayals: low competence and low warmth (LC-LW), low competence and high warmth (LC-HW), high competence and low warmth (HC-LW), and high competence and high warmth (HC-HW). According to the SCM, the perception of social groups results from the perceived structure of the social organization and the relationships groups within society (Caprariello, Cuddy, & Fiske, 2009). On the one hand, the perceived degree of competition (vs. cooperation) between the target group and the reference group predicts warmth. On the other hand, the perceived social status of the target group predicts competence (Fiske, 2015).

Within this framework, older people are often depicted as wise and generous yet also impotent and vulnerable. Their cognitive and physical traits that correspond to the competence dimension are perceived negatively, while their social traits that correspond to the warmth dimension are perceived positively (Kite & Johnson, 1988). Most research places deficiencies at the center of the typical

stereotype of older people. They are perceived as unattractive and in poor health and are associated with mental and physical decline and death (Bergman, 2017). All of these elements trigger perceptions of older individuals as lacking in competence (Boudjemadi, Demoulin, & Bastart, 2017).

Many studies have explored how social groups map in the competence \times warmth space. The “older people” category has almost systematically been included in these studies. In the meantime, a considerable amount of evidence has shown that typical older people are warm but not competent (Fiske, 2018). Some exceptions notwithstanding (e.g., Durante et al., 2012), such a mixed perception is widespread across many countries and cultures. Older people have a relatively low social status and a low degree of competitiveness with other groups (Fiske, 2017).

Older People: A Heterogeneous Stereotype

Although most studies on stereotypes typically focus on broad, superordinate categories (e.g., women, Fiske, 2018), research suggests that the content they include can be organized into several specific subtypes (e.g., career women, housewives; Fiske, 2015; Richards & Hewstone, 2001). Importantly, the perception of subtypes can differ substantially from that of the superordinate category (Brambilla, Carnaghi, & Ravenna, 2011; Burkley et al., 2017; Eckes, 1994). In this vein, lay representations of older individuals can indeed include a variety of stereotypes, both positive (e.g., grandparent, active retiree) and negative (e.g., dependent, disabled) (Hummert, 1999). The most positively evaluated subtypes are associated with the “young-old,” while the most negatively evaluated subtypes are associated with the “old-old” (Hummert, 1990). This finding is consistent with a recent study in which participants were asked to rate young-old and old-old individuals on competence and warmth dimensions. The study showed that the old-old individuals are perceived as the least competent group between the two and, therefore, that very old individuals are particularly at risk of being the target of ageist stereotypes (Lagacé & Firzly, 2017).

Building on this line of research, we sought to further investigate the perception of common subtypes of older people within the SCM framework. As mentioned, specific subtypes may differ considerably from the superordinate type in terms of competence and warmth ratings. For example, physically active older people are associated with higher competence and are viewed as an admired group eliciting positive behaviours (Clément-Guillot, Radel, & Chalabaev, 2015).

Finally, the SCM defines group status in terms of the economic success one ascribes to the target group based on cues such as perceived economic success, access to prestigious jobs, and a high position in society. Considering such a narrow definition of status, it is therefore unsurprising that older people are often perceived as low in competence, as they are no longer in the job market. In our view, such economic cues are often irrelevant in the perception of older people. We argue that social status alone is insufficient to understand the perception of competence of older people subtypes. In the following sections, we discuss how respect can be relevant to understanding the meaning of the competence attributed to older people.

Status, Respect, and Social Hierarchy

Social hierarchy corresponds to the ranking of individuals or groups with respect to a valued social dimension (Magee &

Galinsky, 2008). Groups and individuals are usually distributed along a vertical ladder that pertains to a hierarchical organization of society (Destin, Richman, Varner, & Mandara, 2012). Social psychologists differentiated between two different but related hierarchical dimensions that are often labeled “power” and “status” (Blader & Chen, 2011; Fiske & Bai, 2020; Fiske, Dupree, Nicolas, & Swencionis, 2016; Magee & Galinsky, 2008). Power is defined as asymmetric control over valued resources, and provides the power holder with the capacity to influence others through rewards and punishments. The differentiation of people along the power dimension matches the unequal distribution of tangible resources such as money, goods, or institutional positions. In that sense, power can be understood as the formal, objective dimension of hierarchy. Contrarywise, status is defined as the extent to which an individual is admired and respected by others (Binning & Huo, 2012; Fragale, Overbeck, & Neale, 2011; Ridgeway, 2014). Status is freely conferred by others on people who possess knowledge, skills, or whatever attributes inspire respect. In contrast to power that is exercised irrespective of what one might think of the person that holds it, status is inherently tied to the person’s reputation. Moreover, status can be relatively independent of tangible resources, such as is the case for spiritual guides, artists, or teachers. In that sense, status can be considered as the informal dimension of hierarchy.

It is worth noting that the “power” and “status” labels are not always used consistently in the literature. In the present research, we use the terms *perceived socio-economic status* (PSES) and *respect* to refer to the subjective representation of the formal and informal dimensions of hierarchy, respectively. There are two reasons for this choice. First, we wanted to remain faithful to the SCM framework that defines status in terms of socio-economic position in the social hierarchy. Second, we consider that the label “power” may appear too narrow in a study on the stereotypes of older people. As we already mentioned earlier, older people are generally no longer working and therefore no longer have any real power. Like other authors (for a review, see Blader & Yu, 2017), we decided to use the label “respect” to refer to the informal dimension of social hierarchy.

Objectives and Hypotheses

The first goal was to examine the heterogeneity in the older people stereotype content within the SCM framework. To this end, we analyzed subtype ratings on the warmth and competence dimensions. Past research reported that the superordinate category usually is judged to be low in competence and high in warmth. However, in line with the research on various social groups, we hypothesized that specific subtypes of older people may differ in their ratings on warmth and competence, resulting in distinct subgroup clusters that span the $C \times W$ space (H1). We expected that some subtypes of older people may be admired, nonthreatening out groups. Accordingly, we hypothesized that these specific subtypes may be perceived as high on both competence and warmth dimensions (H2).

Furthermore, the literature suggests that different criteria are used to value older individuals. Older people are recognized for their engagement in family and activities considered to be useful to the community. Likewise, older people are also acknowledged for being independent while enjoying hobbies and taking part in entertainment and other creative or intellectual activities such as arts and literature (Bergeron & Lagacé, 2021; Caradec, 2012). It

thus appears that some subtypes of older people refer to positive aging, in line with cultural standards and expectations (Greenberg, Schimel, & Martens, 2002; North & Fiske, 2013a). Accordingly, we expected that some subtypes might refer to individuals who are respected because of the positive and idealized aging process that they convey, which should lead to high competence ratings. The second aim was thus to examine the predictors of warmth and competence of older people subtypes. Specifically, we sought to examine to what extent perceived competition relates to the perception of warmth, and likewise to what extent the perceived status and respect relate to the perception of competence.

In line with the SCM, we predicted that older people subtypes associated with a high level of warmth are associated with a lesser degree of competitiveness (H3). We focused on identifying which hierarchical dimensions are the most closely linked to the perception of competence. The underlying idea was that the relationships between competence and status or respect reflect the meaning that people attribute to competence. Building on the concept that subtypes of older people can be structured around both economic success (i.e., PSES) and recognition of experience and knowledge (i.e., respect), we hypothesized that both status and respect are linked to the perceived competence of subtypes of older people (H4).

Method

Participants

We recruited 223 college students enrolled in a social psychology course. Because stereotypes of older people may vary across cultures, we retained only native French-speaking participants. The final sample consisted of 212 participants, among which 201 (94.8%) were psychology students and 11 were workers enrolled in a psychology curriculum. The sample consisted of 56 males and 155 females (1 gender not specified), from 18 to 35 years of age (mean [M] = 19.53, standard deviation [SD] = 2.44; three participants did not state their age). A sensitivity power analysis of the current study indicated that 212 participants provide a sufficient statistical power (0.80) to detect small to medium sized effects in the present design ($\eta^2 = 0.05$). Moreover, according to Dalmaijer, Nord, and Astle (2021), 20–30 participants per subgroup are required. We recruited participants on a voluntary basis. They filled out a completely anonymous questionnaire in a paper-and-pencil format. We requested information regarding the participant’s gender, age, profession, and native language. No participant was identifiable. No validation by a research ethics committee for this type of study in France was required at the time of data collection. Finally, participants were not compensated for their participation.

Selection of Older People Subtypes

The first step in this work was a pilot study that aimed to select older people subtypes as perceived by young people.

For the pilot study, we recruited 77 native French-speaking students (58 females and 19 males) from 19 to 25 years of age ($M_{age} = 21.32$, $SD_{age} = 1.56$) attending a social psychology course.

We instructed participants to think about older people and to write down any types of older people that they spontaneously thought of. For each type they noted down, they had to provide a label and a set of characteristics that described the category. They

could name as many types as they wished. We also underlined there were no right or wrong answers, and that only their personal opinion counted. Graduate students involved in the research project acted as judges and were instructed to compile and organize the responses in groups, on the basis of the category labels provided by the participants and the similarity of their content. To group categories together and assign a relevant label to the subtype, the judges had to reach a consensus. For example, participant 43 noted the subgroup *active* described with the characteristics “young retiree”, “athletic”, “well-rounded”, “second life”, “taking care of himself/herself”, “independent”. Another participant (42), noted that the subgroup *retired* was described with the labels “engaged in activities”, “helpful”, “experienced”, “*bon vivant*”, “strong political opinion”, “active retiree”. Participant 44 noted that the subgroup *active* was described with the characteristics “still has a job”, “associative work”, “older worker”. All three judges decided to group the two first categories under the label *active retiree*, whereas the last category was labeled *older worker* (see [Supplementary Table 1](#)). This process led to a total of 58 categories. Based on research criteria used in the field, we only retained subgroups identified by at least 10 per cent of the participants (e.g., Clausell & Fiske, 2005) (see [Supplementary Table 2](#)). The results of this pilot study were the following 17 subtypes: *abandoned older people*, *active retiree*, *older people attached to traditional values*, *older believer*, *depressed older people*, *disabled older people*, *embittered older people*, *grandparent*, *homeless older people*, *older people living in a retirement home*, *older politician*, *older worker*, *older people open to others*, *older people living like a recluse*, *senile*, *sick older people*, and *wise older people*.

Procedure Used for the Main Study

The instructions explained that (1) the participants were taking part in a study based on concepts that would be discussed later in a dedicated course, (2) the results of the study would be presented to them at that time, (3) they were free to participate or not in data collection, (4) it was important to complete the questionnaire individually, which would take about 15 minutes, (5) their responses would be confidential, and (6) their participation had no impact on the evaluation of the course. The students who volunteered to take part then received a booklet containing the questionnaires. To minimize social desirability (defined as the tendency for people to present themselves in a generally favorable fashion) and to capture perceived cultural stereotypes, participants were instructed to make the ratings on the basis of how the groups are viewed by most people in our society (Clausell & Fiske, 2005; Fiske et al., 2002; Sadler, Meagor, & Kaye, 2012). To reduce the risk of participants losing interest because of the questionnaire’s length and to avoid an effect of the order of the questions (see for example; Clausell & Fiske, 2005), we used the following design based on the SCM research: Each participant randomly selected and rated 6 out of the 18 groups (17 subtypes and the superordinate category *older people in general*) on warmth, competence, perceived socio-economic status, perceived competition, and respect. In other words, six groups were picked at random to make up a booklet. The goal was to activate stereotypes in people’s memory and to have them evaluated on various dimensions, hence no definition of these categories was provided to the participants. The items were presented in the same order for all groups. The participants responded using seven-point scales (1 = *Not at all* to 7 = *Absolutely*). Details on the questionnaire are available at <https://osf.io/qk8f7/>.

Materials

Warmth and competence

In line with SCM studies (Fiske et al., 2002), warmth was described with terms such as *likeable*, *sincere*, *warm*, and *tolerant* and competence described with terms such as *intelligent*, *independent*, *confident*, and *competent*.

Perceived competition

Competition items were adapted from Lee and Fiske (2006). Participants rated if the power and resources received by a given social group affect others: (1) *The more power ... have, the less power others are likely to have.* (2) *Resources that go to ... are likely to take away from the resources of others.*

PSES

Status items were also adapted from Lee and Fiske (2006). Participants rated the economic and educational success of a given group: (1) *... have money and resources.* (2) *... have a high position in society.* (3) *... have a high education level.*

Respect

Building on Blader and Chen (2011) and Wojciszke, Abele, and Baryla (2009), respect items were: (1) *... are respected.* (2) *... are esteemed.* (3) *... are an example for others.*

Statistics

To ensure the relevance of our measures, we conducted a pretest on 56 French volunteers (35 females and 21 males) from 19 to 28 years of age ($M_{age} = 22.68$, $SD_{age} = 2.38$). Based on these sets of items, participants had to rate the superordinate category *older people in general* (with a seven-point scale ranging from 1 = *Not at all* to 7 = *Absolutely*). Results showed that Cronbach’s alphas were satisfactory (competence: $\alpha = 0.81$; warmth: $\alpha = 0.68$; status: $\alpha = 0.71$; competition: $\alpha = 0.75$; respect: $\alpha = 0.86$) and yielded expected correlations between warmth and competition ($r[55] = -0.42$, $p = 0.001$), and between competence and status ($r[55] = 0.48$, $p = 0.001$). The correlation between respect and competence was not statistically significant. In line with the SCM, results also showed that the superordinate category *older people* was perceived as significantly more warm ($M = 4.53$, $SD = 0.91$) than competent ($M = 3.39$, $SD = 1.07$) ($t[55] = 5.44$, $p = 0.001$, $d = 1.15$).

Results

Reliability Analysis

Reliabilities for each construct showed good Cronbach’s alpha coefficients (competence: $\alpha = 0.85$, warmth: $\alpha = 0.87$, status: $\alpha = 0.83$, competition: $\alpha = 0.88$, respect: $\alpha = 0.91$).

Cluster Analysis

The scores for each item, each construct, and each subtype, were averaged across participants (see [Supplementary Table 3](#)). Based on mean competence and warmth, we conducted a cluster analysis to identify the collections of groups with similar competence-warmth stereotypes and to evaluate commonalities and differences across older people subtypes. We followed the analytical approach previously used in SCM studies based on two-step cluster analysis (e.g., Burkley et al., 2017; Cuddy, Fiske, & Glick, 2007; Cuddy et al., 2009; Fiske et al., 2002). In order to determine the best-fitting number of

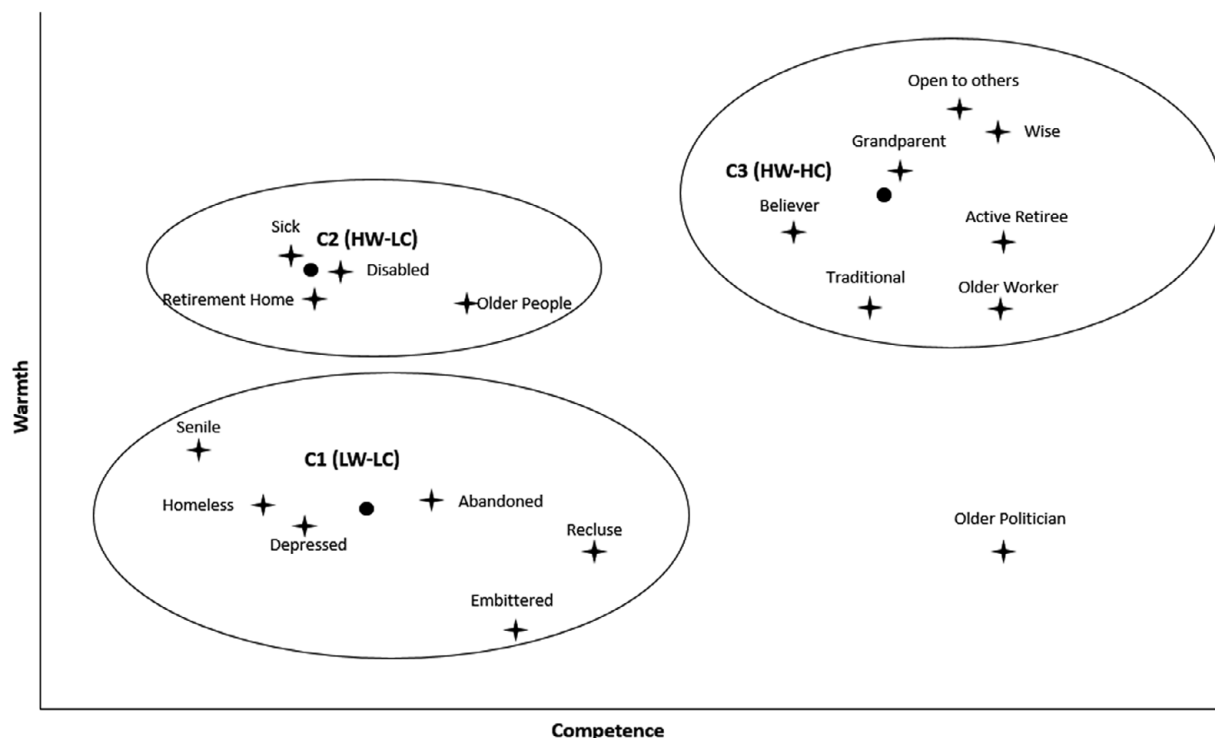


Figure 1. Three-cluster solution. Dots indicate cluster centers. C1, C2, C3 indicate clusters. H = high, L = low, W = warmth, C = competence.

Table 1. Competence and warmth means and standard deviations (in parenthesis) for each cluster

Three-Cluster Solution	Competence		Warmth
C1 (LC-LW)	3.27a (1.25)	=	3.20a (1.16)
C2 (LC-HW)	3.14a (0.97)	<	4.70b (1.05)
C3 (HC-HW)	4.86b (1.19)	<	5.09c (1.12)

Note. Within-cluster contrasts are shown within each row, means differ at $p < 0.01$ if < is indicated. Between-cluster contrasts are shown within each column, means that do not share a subscript differ ($p < 0.01$). C = cluster number; LC-LW = low competence and low warmth; LC-HW = low competence and high warmth; HC-HW = high competence and high warmth.

clusters, we followed the approaches of Blashfield and Aldenderfer (1988) and Hair, Anderson, Tatham, and Black (1995). In this way, we conducted Ward’s hierarchical cluster analysis, maximizing between-cluster variance and minimizing within-cluster variance (Ward, 1963), followed by k-means cluster analysis to assign each group to a cluster. Results suggested a three-cluster solution as the best fit¹ (see Figure 1).

Inferential Analysis

In order to test H1 and H2, we averaged competence and warmth scores for each of the three clusters retained. Inferential analysis is based on the competence and warmth means depending on which cluster the subtypes belong to. We then conducted comparisons within (using paired *t* tests) and between clusters (using one-way analysis of variance and post-hoc Bonferroni corrected *t*

tests) based on competence and warmth means at the cluster level (Table 1). Within-cluster comparisons revealed no statistically significant difference between warmth and competence for subtypes in cluster 1 (C1, $n = 417$) ($t[416] = -0.13, p = 0.89, d = -0.02, 95\%$ confidence interval [CI] = $[-0.16, 0.18]$). In cluster 2 (C2, $n = 282$), participants perceived subtypes as warmer than competent ($t[281] = 19.60, p < 0.001, d = 1.54, 95\%$ CI = $[-1.72, -1.40]$). In cluster 3 (C3, $n = 495$), participants also perceived subtypes as warmer than competent ($t[498] = 3.20, p < 0.001, d = 0.20, 95\%$ CI = $[0.37, -0.09]$). Between-cluster contrasts showed significant differences in competence ($F[2,1191] = 396.47, p < 0.001, \eta^2_p = 0.35, 95\%$ CI = $[0.74, 0.90]$). Contrasts indicated that subtypes in C1 and C2 did not differ statistically significantly in competence ($t[697] = 1.46, p = 0.14, d = 0.12, 95\%$ CI = $[-0.04, 0.28]$) and that participants perceived them as less competent than subtypes in C3 ($t[1,192] = -25.50, p < 0.001, d = -1.45, 95\%$ CI = $[-1.78, -1.52]$). Between-cluster contrasts also showed significant differences in warmth, ($F[2,1191] = 292.04, p < 0.001, \eta^2_p = 0.33, 95\%$ CI = $[0.83, 0.99]$). Contrasts indicated that participants perceived subtypes in C1 as less warm than subtypes in C2 ($t[697] = -15.97, p < 0.001, d = -1.31, 95\%$ CI = $[-1.62, -1.27]$), and perceived subtypes in C3 as warmer than subtypes in C2 ($t[775] = 4.67, p < 0.001, d = 0.35, 95\%$ CI = $[0.23, 0.56]$).

Taken together, these results support our first hypothesis and show that distinct clusters of older people subgroups vary across the C x W space. Subtypes in C1 mapped in the LW-LC quadrant, subtypes in C2 mapped in the HW-LC quadrant, and importantly for our second hypothesis, subtypes in C3 mapped in the HW-HC quadrant.

Correlation and Regression Analysis

To examine how competition related to warmth and how status and respect related to competence, we first computed bivariate

¹Our first analysis including all subgroups showed that the *older politician* stereotype was isolated in a cluster of its own. We conducted a second analysis without the *older politician* stereotype, which suggested a better fit, with three clusters rather than four.

Table 2. Correlations among competence and status, competence and respect, and warmth and competition for each cluster

Three-Cluster Solution	Competence-Status	Competence-Respect	Warmth-Competition
C1 (LC-LW)	0.57**	0.10*	-0.31**
C2 (LC-HW)	0.56**	0.19**	-0.33**
C3 (HC-HW)	0.19**	0.50**	-0.35**

Note. ** $p < 0.01$ and * $p < 0.05$. C = cluster number; LC-LW = low competence and low warmth; LC-HW = low competence and high warmth; HC-HW = high competence and high warmth.

Table 3. Predictors of competence for each cluster

Variables	<i>B</i>	<i>SE</i>	<i>t</i> test	<i>p</i> value	95% CI	η^2
C1 (LC-LW)						
Intercept	3.27	0.047	69.06	0.001	(3.18, 3.36)	
Status	0.65	0.048	13.64	0.001	(0.56, 0.74)	0.31
Respect	0.019	0.047	0.41	0.68	(-0.07, 0.11)	0
S × R	-0.03	0.046	-0.67	0.50	(-0.12, 0.06)	0.001
C2 (LC-HW)						
Intercept	3.15	0.048	65.34	0.001	(3.06, 3.25)	
Status	0.53	0.049	10.81	0.001	(0.43, 0.62)	0.30
Respect	0.08	0.048	1.85	0.06	(-0.005, 0.18)	0.012
S × R	-0.05	0.044	-1.27	0.20	(-0.14, 0.03)	0.006
C3 (HC-HW)						
Intercept	4.83	0.043	110.93	0.001	(4.74, 4.92)	
Status	0.12	0.044	2.72	0.001	(0.03, 0.20)	0.015
Respect	0.53	0.044	12.14	0.001	(0.44, 0.62)	0.23
S × R	0.17	0.041	4.30	0.001	(0.09, 0.25)	0.036

Note. ** $p < 0.01$. C = cluster number; LC-LW = low competence and low warmth; LC-HW = low competence and high warmth; HC-HW = high competence and high warmth; S × R = interaction between status and respect; CI = confidence interval. C1: $F(3, 413) = 65.26$, $p = 0.001$, $R^2 = 0.32$; C2: $F(3, 278) = 45.73$, $p = 0.001$, $R^2 = 0.33$; C3: $F(3, 491) = 64.37$, $p = 0.001$, $R^2 = 0.28$.

correlations between warmth and competition, PSES and competence, and respect and competence for each cluster (see Table 2). As predicted in H3, warmth and competition were negatively correlated for each cluster, showing that older people subtypes associated with a high level of warmth are those associated with a lesser degree of competitiveness. Competence was correlated to a higher extent with PSES than with respect in C1 and C2. Interestingly, competence was more strongly correlated with respect than with status in C3.

Second, to test whether both status and respect were correlated with the perceived competence of older people subtypes (H4), we centered status and respect, and regressed competence on status, respect, and type of cluster. A three-way interaction emerged ($b = 0.09$, $t[1,186] = 2.55$, $p = 0.01$, $\eta^2_p = 0.005$, 95% CI = [0.02, 0.17]). We then regressed competence on PSES and respect in each cluster (see Table 3). Results showed that only PSES predicted competence in C1 and C2. The observed pattern in C3 was different: respect and PSES predicted competence but with a greater contribution for respect than for PSES. Additionally, respect and PSES significantly interacted (see Table 3).

Breaking down the simple effects revealed that when subtypes were rated lower on respect (-1 SD), participants reported a similar perceived competence regardless of PSES. ($b = -0.05$, $t[491] = -0.96$, $p = 0.34$, 95% CI [-0.17, 0.06], $\eta^2_p = 0.002$). In other words, PSES was not associated with competence when the subtypes were not respected. However, when the subtypes were

rated higher on respect (+1 SD), PSES was positively associated with competence: participants reported more competence for subtypes perceived as having higher PSES (+1 SD) than for those having lower PSES (-1 SD) ($b = 0.29$, $t[491] = 4.75$, $p = 0.001$, 95% CI [0.17, 0.41], $\eta^2_p = 0.044$) (see Figure 2).

Taken together, these results partially support our hypothesis that both status and respect contribute to shaping perceptions of competence in older people. Interestingly, respect proved to be the main predictor of competence in the HC-HW cluster. In these subtypes, PSES predict competence only when older people are respected.

Discussion

The present work analyzed the social perception of subtypes of older people within the SCM framework (Fiske et al., 2002). In line with Hummert's (1999) works, our results showed that the perception of older people is complex and portrays heterogeneous representations in memory. This heterogeneity resulted in differences in the perception of subtypes on the warmth and competence dimensions. Importantly, ratings on some subtypes diverged from those of the superordinate category, showing that older people subtypes can vary across the C × W space. Furthermore, the subtypes mapped in three distinct subgroup clusters. More importantly, seven subtypes mapped in a HW-HC cluster. It is interesting to

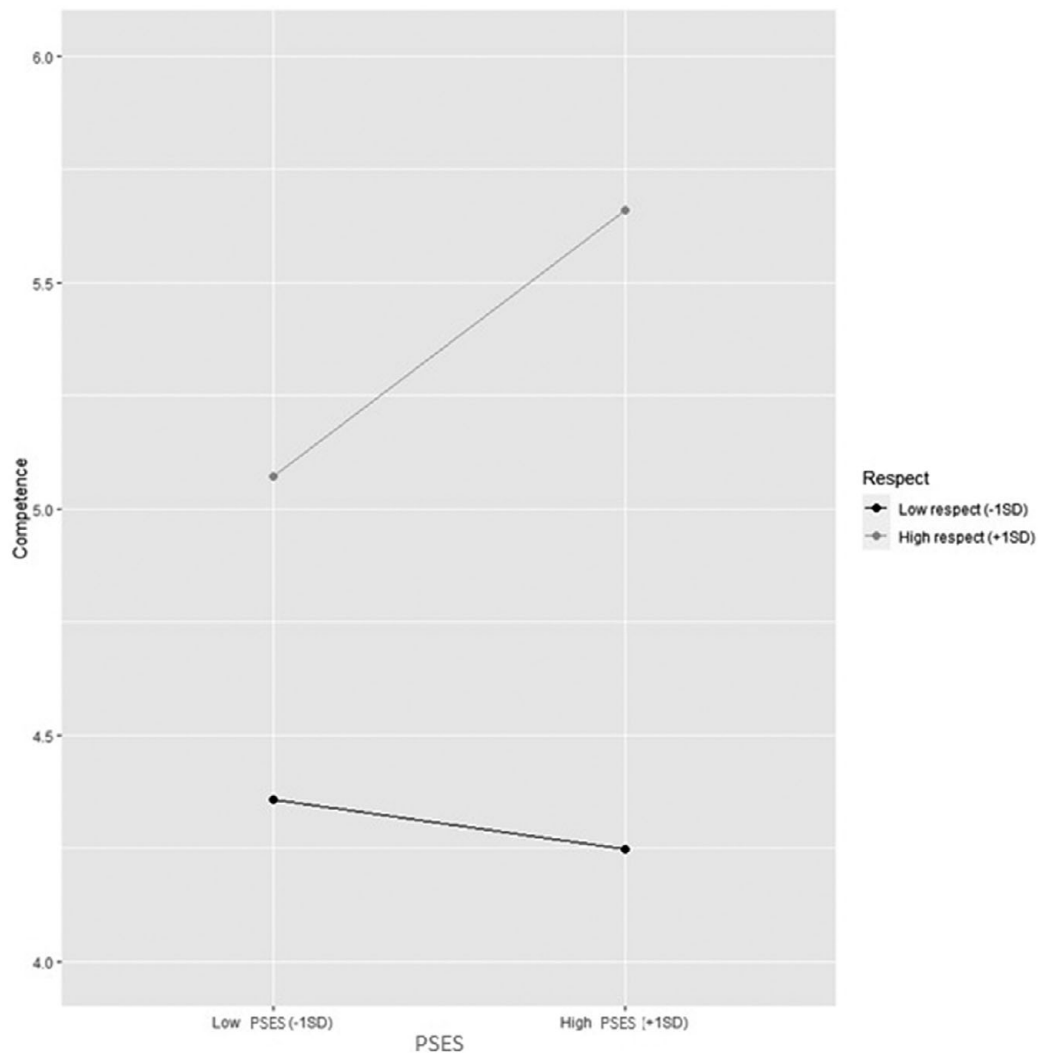


Figure 2. Perceived competence in C3 as a function of perceived socio-economic status (PSES) and respect. Both variables are standardized.

note that the superordinate category mapped in the HW-LC cluster alongside *sick*, *disabled*, and *retirement home* subtypes, perceived by society as being in poor health, and in mental and physical decline. This supports the hypothesis that the superordinate category of older people is related to the more prototypical features in memory. This is consistent with previous results suggesting that in Western and industrialized societies, the most shared and pervasive representations of older people and the aging process are linked to illness, dependency, and declining cognitive and physical capabilities. On top of that, some authors pointed to a distinction between the subtypes of older people based on age; for example, that negative subtypes tend to be associated with more advanced age than positive subtypes (Hummert, 1990). Likewise, it has been argued that the old-old stereotype is mainly a benevolent form of ageism, rated as high on the warmth dimension and low on competence one (North & Fiske, 2013c; for Canadian context, see Lagacé & Frizly, 2017). Our study did not test these specific aspects, but we conducted a preliminary study (Świątkowski & Boudjemadi, 2014) that focused on the most representative subtypes of older people, SCM, and age. In line with previous findings, that study showed that the age attributed to HW-LC stereotypes (e.g., *sick*, *disabled*) was 75 and over (old-old), and that the age attributed to HW-HC stereotypes (e.g., *grandparents*, *active retiree*)

was less than 70² (young-old). It would be interesting to explore this distinction based on age and the possible implications of SCM dimensions.

With respect to the predictors of the stereotype content, our results corroborated the role played by status and interdependence in the perception of warmth and competence of the subtypes of older people in line with the literature (Abele et al., 2021; Fiske et al., 2002). On the one hand, the heterogeneity of warmth content of subtypes depends on competition. On the other hand, heterogeneity of the content of competence of subtypes depends on the status as defined by Fiske. However, based on the multi-componential conceptualization, social hierarchy seems to be not only based on the control and sharing of concrete resources, but also on something less tangible and more symbolic, namely respect. In this line of reasoning, we showed that in addition to perceived socio-economic status, respect can predict the perception of competence in some subtypes of older people. Indeed, our study revealed that respect plays an important role in the perception of competence of older people, specifically that of older individuals whose warmth and competence qualities are both perceived as high. In other

²Except for the *wise* stereotype, perceived as older than 80, potentially representing an idealized ageing.

words, some older people are respected, and others less; those who are respected are consequently perceived as competent. The respect older people may elicit is can be therefore assumed to depend on the specific subtype that is activated. Moreover, the research on SCM showed that the HW-HC categories elicit pride and admiration (Fiske *et al.*, 2002). We believe that the importance of respect in the positive appraisal of competence of these subtypes of older people reflects the fact that people recognize the social and symbolic value of their experience, knowledge, and wisdom.

In ancient and agrarian societies, older people were seen as powerful and respected. They were the individuals who perpetuated the transmission of knowledge and the maintenance of collective memory. They were considered as both wise and competent (Baltes, Freund, & Li, 2005). With the invention of the printing press and the industrial revolution, their role in society was reduced (North & Fiske, 2017). As a consequence, Western societies gradually considered older people to be a financial burden (Nelson, 2005). Still, our results suggest that despite many societal changes that had deleterious effects for older people, a positive perception of older people has endured in collective memory. Older people can still be associated with successful, active, and healthy aging.

Limitations and Future Directions

The purpose of this study was to examine the stereotype subtypes that young French people associate with older people. It is important to note that the subtypes examined here were those of mostly young people, most of whom were students. As such, these subtypes may not be representative of the subtypes perceived by the population as a whole. To further validate our results, it would be necessary to study the subtypes of older people held by a sample including other age groups (i.e., children, teenagers, the middle-aged, and older people themselves). Furthermore, our sample was also predominantly female. Future research should ensure an equal proportion of men and women in their samples.

Another limitation of the present work is inherent in the correlation design which precludes drawing any causal relationship. It is fundamental to broaden the perspective provided by this study. First, based on a recent work that assessed approach and avoidance towards minorities (Aubé, Rougier, Muller, Ric, & Yzerbyt, 2019), we propose to experimentally test the impact of subtypes of older people on behaviors. This type of design can constitute a real opportunity to understand variability in dealing with older people. Furthermore, we also consider it useful to more directly investigate how respect can affect feelings and beliefs toward older people. Second, according to Fiske (2017), the superordinate category of older people is perceived as compliant and does not represent a threat. Nevertheless, it has been shown that interdependence and intergenerational tensions emerged around control over symbolic and tangible resources in many societies (North & Fiske, 2012, 2013a, 2013c). From this standpoint, younger people tend to be most resentful of noncompliant older people. In other words, older people adhering to ageist stereotypes are praised, and those resisting or violating prescriptive stereotypes are severely derogated (North & Fiske, 2013b). Future research should investigate the extent to which subtypes of older people are linked to such intergenerational tensions. In closing, addressing the extent to which the subtypes of older people evoke specific threats and activate specific emotional reactions is an important direction for future research on ageism. For example, by combining SCM with the socio-functional approach of prejudice (Cottrell & Neuberg, 2005), it

may be possible to link beliefs concerning older people to specific threats.

On a societal level, the perception of respect varies, widely depending on the worldviews held in a society (e.g., Indigenous Collectivist Mindset) (Gambrell, 2017). Therefore, it is likely that respect for older adults is driven by cultural factors, as it varies from one culture to another (Bergeron & Lagacé, 2021). For example, some research suggests that Asian collectivist societies have great reverence for older people because of Confucianism (Ng, 2002; for a review see North & Fiske, 2015). However, a meta-analysis conducted by North and Fiske (2015) invalidated this hypothesis by showing that these collectivist countries were more ageist than Western countries. These authors also showed that the rate of aging in a population greatly influences negative attitudes toward older adults. Therefore, countries that have undergone a rapid demographic transition seem to be confronted with an abrupt societal adaptation to aging, leading to strong intergenerational tensions. These findings are in line with a recent review of literature that indicated that the number and the cost of the older population in a given society are the main predictors of ageism at a societal level (Marques *et al.*, 2020). Following this line of reasoning, a cross-cultural study (Boudjemadi *et al.*, 2022) was conducted in four French-speaking countries; namely, Belgium, Canada, France, and Switzerland. That study suggested that ageism is pervasive in these countries and showed that the prescriptive ageist scores reflected the relative speed of aging and the increase in the senior dependency ratio between the countries. It highlighted that rapidly aging populations and additional pressure on the workforce may be key factors in understanding ageism. Taken together, these results suggest that despite cultural aspects, demography and economic reasons have a significant impact on the way we consider our seniors.

Lastly, we did not take into account the frequency and quality of contact of participants with older adults. Indeed, a literature review on the determinants of ageism by Marques *et al.* (2020) showed that these variables are identified as possible moderators of ageism. Therefore, it appeared to us that these variables should rather be the subject of other studies specifically focused on these aspects. Similarly, according to the Positive Education about Aging and Contact Experiences (PEACE) model (Levy, 2016), knowledge about aging and older people, as well as cooperative intergenerational contacts, are factors that reduce ageism. Future research should explore the implication of these variables, particularly in the way a population respects its elders.

Conclusion

To our knowledge, this is the first study to use the SCM to examine subtypes of older people. Our results show that the older people superordinate category contains a wide range of subtypes, some of which are perceived very differently from the typical stereotype in their ratings of competence and warmth. Evidence presented in the current study suggests that some older people are considered competent, going against the frequent assumption that older people are systematically portrayed as low on competence. Importantly, respect constitutes a key factor for a positive perception of aging people. Respect is more malleable than socio-economic status and could be a key factor for a society more inclusive of older people. We recommend further research to investigate this positive view of aging to help identify appropriate strategies to reduce ageism.

Supplementary material. The supplementary material for this article can be found at <http://doi.org/10.1017/S0714980823000107>.

Author contributions statement. We describe contributions to the article using CRediT taxonomy.

V.B., W.S., A.C. and O.R. were responsible for conceptualization; V.B., W.S. and A.C. were responsible for methodology; V.B. and O.R. were responsible for validation; V.B. and L.V. were responsible for formal analysis; V.B., W.S. and A.C. were responsible for investigation; V.B. and W.S. were responsible for resources; V.B. and L.V. were responsible for data curation; V.B. and W.S. were responsible for writing – original draft; V.B., W.S., A.C., L.V. and O.R. were responsible for writing – review and editing; V.B., W.S. and A.C. were responsible for visualization; V.B. was responsible for supervision; and V.B. was responsible for project administration.

Data accessibility statement. All data files and additional materials can be found at: <https://osf.io/qk87/>.

References

- Abele, A. E., Ellemers, N., Fiske, S. T., Koch, A., & Yzerbyt, V. (2021). Navigating the social world: Toward an integrated framework for evaluating self, individuals, and groups. *Psychological Review*, *128*(2), 290–314. <https://doi.org/10.1037/rev0000262>
- Abrams, D., Russell, P. S., Vauclair, M., & Swift, H. J. (2011). *Ageism in Europe: Findings from the European social survey*. London: Age UK.
- Aubé, B., Rougier, M., Muller, D., Ric, F., & Yzerbyt, V. (2019). The online-VAAS: A short and online tool to measure spontaneous approach and avoidance tendencies. *Acta Psychologica*, *201*, 102942. <https://doi.org/10.1016/j.actpsy.2019.102942>
- Baltes, P. B., Freund, A. M., & Li, S. C. (2005). The psychological science of human ageing. In M. Johnson, V. L. Bengtson, P. G. Coleman, & T. Kirkwood (Eds.), *The Cambridge handbook of age and ageing* (pp. 47–71). Cambridge: Cambridge University Press.
- Bergeron, C. D., & Lagacé, M. (2021). On the meaning of aging and ageism: Why culture matters. *University of Toronto Quarterly*, *90*(2), 140–154. <https://doi.org/10.3138/utq.90.2.06>
- Bergman, Y. S. (2017). Ageism in childhood. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons*. (2nd ed.) (pp. 3–36). Cambridge, MA: MIT Press.
- Binning, K. R., & Huo, Y. J. (2012). Understanding status as a social resource. In K. Y. Törnblom and A. Kazemi (Eds.), *Handbook of social resource theory*. New York: Springer.
- Blader, S. L., & Chen, Y. R. (2011). What influences how higher-status people respond to lower-status others? Effects of procedural fairness, outcome favorability, and concerns about status. *Organization Science*, *22*(4), 1040–1060. <https://doi.org/10.1287/orsc.1100.0558>
- Blader, S. L., & Yu, S. (2017). Are status and respect different or two sides of the same coin? *Academy of Management Annals*, *11*(2), 800–824. <https://doi.org/10.5465/annals.2015.0150>
- Blashfield, R. K., & Aldenderfer, M. S. (1988). The methods and problems of cluster analysis. In J. R. Nesselroade & R. B. Cattell (Eds.), *Handbook of multivariate experimental psychology* (pp. 447–473). New York: Plenum Press.
- Boudjemadi, V., Chauvin, B., Adam, S., Indoumou-Peppe, C., Lagacé, M., Lalot, F., et al. (2022). Assessing the cross-cultural validity of the succession, identity and consumption (SIC) scale across four French-speaking countries. *International Review of Social Psychology*, *35*(1), 1–18. <https://doi.org/10.5334/irsp.544>
- Boudjemadi, V., Demoulin, S., & Bastart, J. (2017). Animalistic dehumanization of older people by younger ones: Variations of humanness perceptions as a function of a target's age. *Psychology and Aging*, *32*, 293–306. <https://doi.org/10.1037/pag0000161>
- Boudjemadi, V., Posner, A., & Bastart, J. (2022). Older people and death-thought accessibility: The association between death and older people in memory. *Death Studies*, *46*, 666–674. <https://doi.org/10.1080/07481187.2020.1753852>
- Brambilla, M., Carnaghi, A., & Ravenna, M. (2011). Status and cooperation shape lesbian stereotypes: Testing predictions from the stereotype content model. *Social Psychology*, *42*(2), 101–110. <https://doi.org/10.1027/1864-9335/a000054>
- Burkley, E., Durante, F., Fiske, S. T., Burkley, M., & Andrade, A. (2017). Structure and content of Native American stereotypical subgroups: Not just (ig)noble. *Cultural Diversity and Ethnic Minority Psychology*, *23*(2), 209–219. <https://doi.org/10.1037/cdp0000100>
- Caprariello, P. A., Cuddy, A. J. C., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotions: A causal test of the stereotype content Model. *Group Processes and Intergroup Relations*, *12*(2), 147–155. <https://doi.org/10.1177/1368430208101053>
- Caradec, V. (2012). *Sociologie de la vieillesse et du vieillissement*. Paris: Armand Colin.
- Clausell, E., & Fiske, S. (2005). When do subgroup parts add up to the stereotypical whole? Mixed stereotype content for gay male subgroups explains overall ratings. *Social Cognition*, *23*, 161–181. <https://doi.org/10.1521/soco.23.2.161.65626>
- Clément-Guillotin, C., Radel, R., & Chalabaev, A. (2015). If you are old and do not want to fall into the traditional stereotype - Be physically active! *Experimental Aging Research*, *41*, 446–462. <https://doi.org/10.1080/0361073X.2015.1053768>
- Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice". *Journal of Personality and Social Psychology*, *88*, 770–789. <https://doi.org/10.1037/0022-3514.88.5.770>
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, *92*(4), 631–648. <https://doi.org/10.1037/0022-3514.92.4.631>
- Cuddy, A. J., Fiske, S. T., Kwan, V. S., Glick, P., Demoulin, S., Leyens, J. P., et al. (2009). Stereotype content model across cultures: Towards universal similarities and some differences. *British Journal of Social Psychology*, *48*(1), 1–33. <https://doi.org/10.1348/014466608X314935>
- Dalmajer, E. S., Nord, C. L., & Astle, D. E. (2021). Statistical power for cluster analysis. Retrieved 14 July 2022 from <https://arxiv.org/abs/2003.00381>.
- Destin, M., Richman, S., Varner F., & Mandara J. (2012). "Feeling" hierarchy: The pathway from subjective social status to achievement. *Journal of Adolescence*, *35*(6), 1571–1579. <https://doi.org/10.1016/j.adolescence.2012.06.006>
- Durante, F., Fiske, S. T., Kervyn, N., Cuddy, A. J. C., Akande, A., Adetoun, B. E., et al. (2012). Nations' income inequality predicts ambivalence in stereotype content: How societies mind the gap. *British Journal of Social Psychology*, *52*, 726–746. <https://doi.org/10.1111/bjso.12005>
- Eckes, T. (1994). Features of men, features of women: Assessing stereotypical beliefs about gender subtypes. *British Journal of Social Psychology*, *33*(1), 107–123. <https://doi.org/10.1111/j.2044-8309.1994.tb01013.x>
- European Social Survey (2020). *Data and documentation*. Retrieved 14 July 2022 from <https://www.europeansocialsurvey.org/data/>.
- Fiske, S. T. (2015). Intergroup biases: A focus on stereotype content. *Current Opinion in Behavioral Sciences*, *3*, 45–55. <https://doi.org/10.1016/j.cobeha.2015.01.010>
- Fiske, S. T. (2017). Prejudices in cultural contexts: Shared stereotypes (gender, age) versus variable stereotypes (race, ethnicity, religion). *Perspectives on Psychological Science*, *12*, 791–799. <https://doi.org/10.1177/1745691617708204>
- Fiske, S. T. (2018). Stereotype content: Warmth and competence endure. *Current Directions in Psychological Science*, *27*(2), 67–73. <https://doi.org/10.1177/0963721417738825>
- Fiske, S. T., & Bai, X. (2020). Vertical and horizontal inequality are status and power differences: Applications to stereotyping by competence and warmth. *Current Opinion in Psychology*, *33*, 216–221. <https://doi.org/10.1016/j.copsyc.2019.09.014>
- 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>
- Fiske, S. T., Dupree, C. H., Nicolas, G., & Swencionis, J. K. (2016). Status, power, and intergroup relations: The personal is the societal. *Current Opinion in Psychology*, *11*, 44–48. <https://doi.org/10.1016/j.copsyc.2016.05.012>

- Fragale, A. R., Overbeck, J. R., & Neale, M. A. (2011). Resources versus respect: Social judgments based on targets' power and status positions. *Journal of Experimental Social Psychology*, *47*(4), 767–775. <https://doi.org/10.1016/j.jesp.2011.03.006>
- Gambrell, K. M. (2017). The case for an indigenous collectivist mindset. In J. L. Chin, J. E. Trimble, & J. E. Garcia (Eds.), *The culturally diverse leader: New dimensions, opportunities and challenges for business and society* (pp. 21–39). Bingley, UK: Emerald Group Publishing Limited.
- Greenberg, J., Schimmel, J., & Martens, A. (2002). Ageism: Denying the face of the future. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 27–48). Cambridge, MA: MIT Press.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis with readings*. Hoboken, NJ: Prentice-Hall.
- Hummert, M. L. (1990). Multiple stereotypes of elderly and young adults: A comparison of structure and evaluations. *Psychology and Aging*, *5*, 183–193. <https://doi.org/10.1037//0882-7974.5.2.182>
- Hummert, M. L. (1999). A social cognitive perspective on age stereotypes. In T. M. Hess & F. Blanchard-Fields (Eds.), *Social cognition and aging* (pp. 175–195). Cambridge, MA: Academic Press.
- Kite, M. E., & Johnson, B. T. (1988). Attitudes toward older and younger adults: A meta-analysis. *Psychology and Aging*, *3*, 233–244. <https://doi.org/10.1037//0882-7974.3.3.233>
- Lagacé, M., & Firzly, N. (2017). Who's "really" Old?: Addressing shifting targets of ageism through intragroup and intergroup perceptions of aging. *The Journal of Aging and Social Change*, *7*(3), 35–48. <https://doi.org/10.18848/2160-1909/CGP/v07i03/35-48>
- Lee, T. L., & Fiske, S. T. (2006). Not an outgroup, not yet an ingroup: Immigrants in the stereotype content model. *International Journal of Intercultural Relations*, *30*(6), 751–768. <https://doi.org/10.1016/j.ijintrel.2006.06.005>
- Levy, S. R. (2016). Toward reducing ageism: PEACE (Positive Education about Aging and Contact Experiences) model. *The Gerontologist*, *58*(2), 226–232. <https://doi.org/10.1093/geront/gnw116>
- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, *2*(1), 351–398. <https://doi.org/10.5465/19416520802211628>
- Marques, S., Mariano, J., Mendonça, J., De Tavernier, W., Hess, M., Naegle, L., Peixeiro, F., & Martins, D. (2020). Determinants of ageism against older adults: A systematic review. *International Journal of Environmental Research and Public Health*, *17*(7), 2560. [10.3390/ijerph17072560](https://doi.org/10.3390/ijerph17072560)
- Nelson, T. D. (2005). Ageism: Prejudice against our feared future self. *Journal of Social Issues*, *61*, 207–221. <https://doi.org/10.1111/j.1540-4560.2005.00402.x>
- Ng, S. H. (2002). Will families support their elders? Answers from across cultures. In T. D. Nelson (Ed.), *Ageism: Stereotyping and prejudice against older persons* (pp. 295–309). Cambridge, MA: MIT Press.
- North, M.S., & Fiske, S.T. (2012). An inconvenienced youth? Ageism and its potential intergenerational roots. *Psychological Bulletin*, *138*, 982–997. <https://doi.org/10.1037/a0027843>
- North, M. S., & Fiske, S. T. (2013a). Act your (old) age: Prescriptive, ageist biases over succession, consumption, and identity. *Personality and Social Psychology Bulletin*, *39*, 720–734. <https://doi.org/10.1177/01461672134880043>
- North, M.S., & Fiske, S. T. (2013b). A prescriptive intergenerational-tension ageism scale: Succession, identity, and consumption (SIC). *Psychological Assessment*, *25*, 706–713. <https://doi.org/10.1037/a0032367>
- North, M. S., & Fiske, S. T. (2013c). Subtyping ageism: Policy issues in succession and consumption. *Social Issues and Policy Review*, *7*, 36–57. <https://doi.org/10.1111/j.1751-2409.2012.01042.x>
- 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>
- North, M. S., & Fiske, S. T. (2017). Succession, consumption, and identity: Prescriptive ageism domains. In T. D. Nelson (Ed.), *Ageism. Stereotyping and prejudice against older persons*. (2nd ed.) (pp. 77–104). Cambridge, MA: MIT Press.
- Richards, Z., & Hewstone, M. (2001). Subtyping and subgrouping: Processes for the prevention and promotion of stereotype change. *Personality and Social Psychology Review*, *5*(1), 52–73. <https://doi.org/10.1207/S15327957PSPR0501>
- Ridgeway, C. L. (2014). Why status matters for inequality. *American Sociological Review*, *79*(1), 1–16. <https://doi.org/10.1177/0003122413515997>
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.), *Cognition and categorization* (pp. 27–48). Hillsdale, NJ: Erlbaum.
- Sadler, M. S., Meagor, E. L., & Kaye, K. E. (2012). Stereotypes of mental disorders differ in competence and warmth. *Social Science & Medicine*, *74*(6), 915–922. <https://doi.org/10.1016/j.socscimed.2011.12.019>
- Świątkowski, W., & Boudjemadi, V. (2014). *Warmth, competence, and age perception in elderly subtypes* [Poster presentation]. 10th International Congress of Social Psychology. Paris, France.
- Swift, H. J., Abrams, D., Marques, S., Vauclair, C. M., Bratt, C., & Lima, M. L. (2018). Ageism in the European region: Finding from the European social survey. In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary perspectives on ageism* (pp. 441–459). Cham: Springer.
- United Nations (2017). *World population ageing*. New York: United Nations. Retrieved 1 September 2019 from <https://www.un.org/en/development/desa/population/theme/ageing/WPA2017.asp>.
- Ward Jr, J. H. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*(301), 236–244. <https://doi.org/10.1080/01621459.1963.10500845>
- Wojciszke, B., Abele, A. E., & Barylka, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. *European Journal of Social Psychology*, *39*(6), 973–990. <https://doi.org/10.1002/ejsp.595>
- World Health Organization (2017). 10 facts on ageing and health. Retrieved 1 September 2019 from <http://www.who.int/features>.