Diversity in Old Age:

Stereotyping of Subgroups of Older People Across Cultures

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Abstract

An aging population is increasingly recognized as a critical concern in the social sciences, especially in regard to the issue of ageism. The literature suggests that older people are subject to ambivalent and paternalistic judgments. However, this does not consider diversity within the older population and that cultures may differ in how they perceive and evaluate diverse groups of older people. To address these gaps, a pre-study was conducted employing a freelisting task to identify old age subgroups. In the main study, participants from the US and Germany (individualistic-loose cultures) and Japan, Lebanon and Portugal (collectivistic-tight cultures) were asked to evaluate 19 distinct subgroups of older people by using stereotype content measures. The results suggest that subgroups' clusters were generally perceived as low, medium, or high on both the competence and warmth dimensions providing no support for clearly ambivalent old age subgroup stereotypes. As expected, competence and warmth were consistently associated with the socio-structural variables perceived status and threat. Overall, the results point to similar patterns across cultures with different subgroups being evaluated in a similar fashion on stereotype content measures. This highlights the importance of promoting a more nuanced understanding of older people when addressing ageism in different cultures.

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According to the World Social Report of the United Nations (2023), the number of people aged 65 or older will double worldwide from 2021 to 2050 and it is predicted that by 2050, one in six people in the world will be over 65 years of age. The increasing ageing population inspires many to paint a gloomy picture of the future, with ageism being a major socio-psychological concern (North & Fiske, 2012). Yet, older people are also becoming more diverse which provides challenges, but also opportunities to identify positive perceptions of older people – something that had already been mentioned by previous researchers more than three decades ago (e.g., Hummert, 1990; Schmidt & Boland, 1986), but which should apply even more nowadays. Adequately addressing contemporary forms of ageism requires directing more efforts towards understanding perceived diversity in old age.

Overall, the literature tends to suggest that older people are generally evaluated in an ambivalent and paternalistic way, that is, seen as warm, but not so competent (Marcus & Fritzsche, 2016; North & Fiske, 2015) — thereafter referred to as the ´doddering but dear´ stereotype (Cuddy, Norton, & Fiske, 2005). Within the stereotype content model framework, there is evidence pointing to the fact that the default ambivalent old age stereotype is pervasive across different cultures (see Cuddy et al., 2009) as well as across childhood and adolescence (Vauclair et al., 2018). Yet, this old age stereotype might refer to a superordinate category, which is becoming increasingly outdated, or to a prototypical subgroup of an older person. In fact, it is not entirely clear what type of older person respondents have in mind when evaluating the general group of older people. Hence, we suggest that contemporary ageism theories and research should examine more thoroughly the existence of subgroups of older people who are likely to be stereotyped and treated in

very different ways. Thereby, research could provide a more refined understanding of social concerns, but also give rise to new opportunities for the social inclusion of older people. Surprisingly, however, there is a paucity of contemporary empirical research on age stereotypes across different cultures: Most of the research was conducted three or even four decades ago, with student samples, and is embedded in a North American cultural context. This raises questions about the generalisability and validity of the results for contemporary societies in other parts of the world. Moreover, existing results are difficult to interpret given the lack of an overall theoretical framework and the diversity of measures used. Hence, the aim of the present study was to identify an exhaustive list of contemporary old age subgroups (pre-study) and examine how they are perceived across cultures by using the stereotype content model as a theoretical framework (main study).

Gerontological research has acknowledged that there are several subgroups of older people, namely in terms of the intersection of age with other categorizations (e.g., gender, ethnicity, socio-economic position, e.g., Holman & Walker, 2020), age-based divisions (e.g., young-old, middle-old and old-old; e.g., Higgs & Gilleard, 2015), or stereotypes of older people in the workplace (e.g., Posthuma & Campion, 2009). Nevertheless, these do not necessarily refer to perceived age subgroups, as conceptualized in the present paper. Therefore, to the best of our knowledge, this research is the first to examine an exhaustive set of old age subgroups as perceived by participants and to apply the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2002) in order to understand how subgroups are evaluated across different age groups and cultures.

The Stereotype Content Model (SCM) and Age Stereotypes

The SCM suggests that two underlying dimensions, competence (e.g., intelligence, capability) and warmth (e.g., friendliness, likability), organize the stereotypical perceptions

associated with any social group in society (Fiske et al., 2002). A negative evaluation of a social group along these two dimensions is theorised to be related to discriminatory acts against this group (Cuddy, Fiske, & Glick, 2007).

The social structure hypothesis (Fiske et al., 2002) explains why groups are stereotyped in a specific combination of competence and warmth. The higher the social status of a group, the more members are perceived as ´competent´. Likewise, the less a group competes for resources (e.g., economic opportunities), the more they are perceived as ´warm´. The combination of levels of competence and warmth attributed to a group is associated with different emotions. Groups rated as high in competence and warmth are *admired*, while those rated as low on both dimensions tend to be met with *contempt*. Ambivalent forms of prejudice result if groups are rated high on one dimension, but low on the other and are characterised by either *pity* (low competence, high warmth) or *envy* (high competence, low warmth). The hypothesised relations between social structural variables, stereotypes, prejudice, and discrimination in relation to various social groups have been supported in numerous correlational and experimental studies (Caprariello, Cuddy, & Fiske, 2009).

Studies by Cuddy and colleagues (2005, 2009) have shown that U.S. participants stereotype older people as more warm than competent, following from the perception that they are a non-competitive and a low status group which results in the ambivalent emotion of pity. This pattern also emerged with students from more collectivistic-oriented cultures (Hong Kong, Japan, South Korea). Such perceptions could be triggered by associating old age with the less active old-old subgroup who may be perceived to be prototypical of the overall category ´older people´ (e.g., North & Fiske, 2013b). Yet, in our own research we encountered perplexing findings which raise the question about whom participants have in

mind when responding to general questions about older people. For example, we found that those over 70 years of age elicit both pity and admiration (Abrams, Russell, Vauclair, & Swift, 2011). Given that these emotions are incompatible, the results seem to point to the presence of subgroups suggesting that contemporary old age stereotyping occurs at a more specific level – i.e., older people are not necessarily categorised into an homogeneous abstract higher-order category, but are rather differentiated into lower-order subcategories (see also Brewer, Dull, & Lui, 1981). Different behaviours are also likely to be directed at older people representing different old age stereotypes (Schmidt & Boland, 1986) which would fit well with the diversity of ageism theories that have been suggested in the literature (e.g., terror management theory, see Martens, Goldenberg, & Greenberg, 2005; or prescriptive resentment as in North & Fiske, 2013a, 2013b).

A few recent studies have examined specific subgroups of older people within the SCM framework, yet in a very limited fashion. North and Fiske's (2013a) empirical findings with samples from the U.S. seem to confirm that the young-old, who are still relatively healthy and dispose of greater incomes than many younger people (see also Neugarten, 1974), are likely to elicit an *envious* prejudice with high competence and low warmth evaluations. By contrast, those seen as dependent on scarce public resources should be evaluated as low on competence (i.e., dependency) and warmth (i.e., selfishness) yielding *contemptuou*s prejudice. This work is unprecedented in that it aims to subgroup ageism (old-old vs. young-old) by examining *prescriptive* stereotypes that reflect younger people´s expectations of older people. Most importantly, distinguishing different age categories of older people (young-old vs old-old) shows that the type of prejudice they elicit is quite different, even though both groups of older people are seen as a threat to resources (North & Fiske, 2013b): while the young-old, who are seen as competitive, tend to be met with

succession-based discrimination (i.e., making room for the new generation; also supported by meta-analytic evidence (North & Fiske, 2015); the old-old, who are seen an non-competitive, tend to be met with consumption-based discrimination (i.e., depletion of resources). The research line on prescriptive old age stereotypes is important in that it challenges the view that older people are (only) seen as 'doddering but dear'. However, with its focus on intergenerational relations, it does not uncover an exhaustive set of old age subgroups as perceived in society and how these subgroups are stereotyped *descriptively* within the SCM framework.

Another relevant study has been conducted by Clément-Guillotin, Rade and Chalabaev (2015) in France. Applying the SCM, they examined the stereotypical perceptions of older people in general, older people regularly participating in physical activity, and older people regularly playing cards. The results show that status and competence perceptions were boosted in the case of the physically active older adults resulting in more positive perceived societal emotions (admiration) and behavioural reactions (active and passive facilitation). Yet again, this study only examined a small set of subgroups of older people as defined by the researchers.

Subgrouping of Older People in Previous Research

We adopt Clausell and Fiske´s (2005) conceptualization to distinguish subgroups from subtypes. They suggested that subgroups are composed of individuals perceived to share fundamental attributes. Subgrouping can be the result of both confirming and disconfirming information, thereby creating perceived variability in the overall (out)group. On the other hand, subtypes refer to counter-stereotypical attributes which is often described as *splintering* in the sense that these subtypes would represent exceptions to the representation of the overall group, instead of broadening its scope of inclusion. Hence, a

subtype is seen as atypical of the overall superordinate group. In our studies, we are interested in the perceived variability of the superordinate social category ´older people´, therefore, we conceptualize this as subgrouping.

Research on old age subgroups dates to the 1970s/80s. Following Neugarten´s (1974) pioneering work, who identified subcategories of older people by distinguishing between the old-old and the young-old, Brewer, Dull and Dui (1981) employed a picture-sorting, trait-rating and statement-sorting task with students and identified three kinds of older people: grandmotherly (helpful, kind, serene and trustworthy); elder statesman (intelligent, competitive, aggressive and intolerant), and senior citizen (lonely, old-fashioned, weak and worried). Schmidt and Boland (1986) used a content-generation, sorting procedure and attitude assessment method to identify several subgroups of older people in the U.S. and their stereotypical evaluation, yet without employing a specific theoretical framework. After asking university students to generate descriptors of a *typical old person* and sort them into distinct groups, a cluster analysis revealed four positive and eight negative subgroups. A separate sample rated the groups on a sematic differential scale confirming that attitudes towards each of the positive subgroups (John Wayne conservative, the Liberal matriarch/ patriarch, the Perfect grandparent, and the Sage) were significantly more positive than the attitudes expressed toward each of the negative subgroups (Despondent, the Mildly impaired, the Vulnerable, the Severely impaired, the Shrew/ Curmudgeon, the Recluse, the Nosy neighbour, and the Bag lady/ Vagrant).

Schmidt and Boland´s (1986) work influenced several follow-up studies which used the same or a similar methodology. For instance, Hummert et al. (1994) examined subgroups of older people as perceived by young, middle-aged and older participants and were able to replicate eight out of the 12 subgroups from Schmidt & Boland´s (1986) study which were:

Perfect Grandparent, Liberal Matriarch/Patriarch, John Wayne Conservative, Recluse, Severely Impaired, Vulnerable, Shrew/Curmudgeon, and Despondent. Only three previously unreported old age subgroups emerged in their study: Activist and Elitist (reported only by older participants) and Golden Ager (reported by all age groups). The authors conclude that adults of all ages share "seven powerful cultural archetypes of aging: the Golden Ager, John Wayne Conservative, Perfect Grandparent, Shrew/Curmudgeon, Recluse, Despondent, and Severely Impaired" (Hummert et al., 1994, p. 249).

A major limitation of these studies is that they were conducted more than three decades ago and provide a snapshot of ´cultural archetypes´ in a very specific cultural context (US-American).

Stereotyping of Old Age Subgroups across Different Cultures

Very few studies have examined old age subgroups in cultures other than the U.S. Moreover, the majority of these works relied on media analyses (e.g., TV advertisements; Chen, 2015) which carries the important limitation that counter-stereotypical representations - that is *subtyping* of older people - are overemphasized by presenting images of older people who are active and youthful (e.g., Williams, Ylänne, & Wadleigh, 2007). To the best of our knowledge, there is only one study that examined old age subgroups and their stereotypical evaluation across different cultures. Liu, Ng, Loong, Gee, and Weatherall (2003) adopted Schmidt and Boland´s (1986) methodology with young and middle-aged New Zealanders (NZ) of Chinese and European descent. Two consensual subgroups were found across all participants (i.e., the *Nurturant*, characterised by traits that are conceptually related to high warmth and the *Curmudgeon*, with traits related to low warmth). In the NZ Chinese sample, as compared to the NZ European sample, subgroups were evaluatively more simple and implied specific role relationships, clearly divided into

positive and negative clusters. The study is unprecedented in acknowledging that subgrouping of older people may depend on culture. Yet, the lack of a theoretical framework and the focus on social representations of older people as a function of both participant and target ethnicity, render it difficult to conclude how culture is related to subgrouping of older people.

Marcus and Fritzsche (2016) recently proposed the cultural anchors of ageism model in which they focus on cultural dimensions of individualism-collectivism and tightness-looseness as the key ingredients contributing to ageism. Collectivistic-tight cultures feature tighter group boundaries and less tolerance for deviations from normative standards. Both aspects have been found to be associated with discriminatory attitudes towards social minority groups, including older adults (e.g., North & Fiske, 2015; Vauclair, Hanke, Huang, & Abrams, 2017). Accordingly, collectivistic-tight cultures should be the most ageist and individualistic-loose cultures the least (Marcus & Fritzsche, 2016). Therefore, it is conceivable that collectivistic-tight cultures include more subgroups of older people in the clusters that are evaluated negatively on one or both stereotype content dimensions (warmth and competence) than individualistic-loose cultures.

Hypotheses

Our main aim was to identify contemporary old age subgroups and to examine how they are perceived across different cultures. Following the review above, we generally expected to find diversified perceptions of old age. We explored how such diversity may translate in terms of ascribed age boundaries and typicality and expected that some old age subgroups would be evaluated as high in competence and warmth (e.g., the Nurturant, Liu et al., 2003), others as low in competence and warmth (e.g., the Severely Impaired, Schmidt & Boland, 1986) or in an ambivalent fashion, i.e. high in competence but low in warmth (e.g.,

still active, young-old, Neugarten, 1974; North & Fiske, 2013a, 2013b) and low in competence but high in warmth (see the ´doddering but dear stereotype´ which is considered to be highly prevalent, Cuddy et al., 2005).

The expectation that subgroups of older people may deviate from the default perception of pity, involving high warmth and low competence evaluations, is also supported by prescriptive age stereotype findings and theorizing. It has been pointed out that older people risk facing low warmth/low competence *contempt* or low warmth/high competence *envy* respectively (possibly contingent on the perceived status) if they are seen as not ceding resources. Moreover, if older people are perceived as allies who help younger generations, perceptions of high warmth/high competence *admiration* should follow (North & Fiske, 2013b). Therefore, we expected that evaluated subgroups of older would fall into all four quadrants of the stereotype content model:

H1: Perceptions of old age subgroups will vary in such a way that they will occupy four distinct quadrants in the SCM map, differentiated by *competence* and *warmth* evaluations.

Drawing on the theoretical underpinnings of the SCM regarding intergroup emotions, we also predicted that:

H2: High competence and high warmth evaluations should mostly elicit a*dmiration*, low competence and low warmth *contempt;* ambivalent old age subgroups evaluated as high in competence but low in warmth should elicit *envy,* and those perceived as low in competence and high in warmth *pity*.

Given the Social Structure Hypothesis (Fiske et al., 2002), we anticipated that:

H3: Perceptions of *social status* are positively associated with perceived competence and perceptions of *threat* are negatively associated with perceived warmth.

Given the paucity of cultural theories in the ageism domain and the lack of cross-cultural evidence on stereotyping of old age subgroups, we examined whether any identified differences aligned with what would be expected based on the cultural anchors of ageism (Marcus & Fritsche, 2016). Hence, we expected that:

H4: Participants from *collectivistic-tight* cultures evaluate old age subgroups more negatively or ambivalently on both stereotype dimensions than participants from *individualistic-loose* cultures.

Study Overview

First, we conducted a pre-study with a U.S. sample to obtain free listings of old age subgroups and their characteristics. In the main study, participants from five different cultural groups were asked to evaluate these subgroups using established items.

We employed an emic-etic cycle (Berry, 1984) in our approach. Initially, we identified subgroups within the U.S. context, representing an emic research step. The emic approach involves studying psychological phenomena from the perspective of native members of a cultural group. In the main study, these U.S.-derived subgroups were presented to participants from other cultural backgrounds for evaluation, representing an imposed etic strategy (because the subgroups from the U.S. pre-study were applied to other cultural samples).

To account for the unique cultural contexts and perspectives of the cultures being studied, we also invited participants in the main study to list and evaluate any culture-specific old age subgroups they felt were missing. This process allowed us to identify culture-specific (emic) subgroups within these diverse cultural samples while maintaining efficiency, especially given the resource constraints inherent in cross-cultural studies.

The main study examined the stereotypical evaluation of these subgroups across five different cultures. The study was approved by the university´s institutional review board (Protocol #021-2015).

Pre-study

Method

Participants[1]

A total of 66 participants from the U.S. completed this study. Responses from eight participants who had lived in the U.S. for less than 10 years were not included in the analysis. Hence, the final sample comprised 58 participants (38% female; M_{age} = 38.00, *SD* = 13.41).

Materials and Procedure

Participants were recruited via MTurk and responded to an online Qualtrics survey. Participants were first introduced to the concepts of broad social categories and subgroups by reading an example about gender and were then asked to reflect about subgroups related to old age by reading the following instruction:

We would like to ask you about the sort of subgroups that come to your mind when you hear and think about a broader social category. We would also like to ask you about the characteristics you tend to associate with these specific subgroups. For example, if you heard about the broad social category "woman", you might think of subgroups such as career woman and housewife. You may associate the characteristics "successful, busy, active" with the subgroup career woman and "caring, nice, available" with the subgroup housewife. What subgroups come to your mind when you think of the broad social category "old person"? And what are the characteristics that you associate with these subgroups?

[1] The participants that were recruited via MTurk (Pre-study and Main Study) were all compensated for their participation according to the standard compensation at the time of the studies.

Participants were instructed to write up to 10 subgroups related to older people and to report the characteristics they tend to associate with them, followed by socio-demographic questions.

Analytical Strategy

The study employed an analytic strategy outlined by Vauclair, Wilson, and Fischer (2014) to streamline the free-listed responses while retaining significant distinctions. Initially, the responses were broken down into linguistic units, with compound phrases separated if they could stand independently. We then used MAXQDA Plus 11 to identify the most frequently occurring words and categories. However, findings showed that certain terms like "old," "retired," and "elderly" lacked specificity and were often used as adjectives rather than standalone categories.

To address this, we categorized the most frequent responses into meaningful groups, disregarding idiosyncrasies and irrelevant characteristics. We also consolidated synonyms and organized the data into coherent subgroups, carefully considering the core characteristics associated with each subgroup to prevent overlap and preserve meaningful nuances. We discussed thoroughly the final labelling of the subgroups in the research team.

Results

Following the analytic process described above, we identified 19 distinct old age subgroups. Participants free-listed on average about eight different subgroups (M = 7.90; SD = 2.97). The chosen labels were either based on the free listed groups or the reported associated characteristics. Hence, some subgroups were represented by nouns, whereas others were based on adjectives. For better comprehensibility and to emphasize that the exemplars all referred to subgroups of older people, we always added the suffix *´type´*: the *Grandfather* type, the *Grandmother* type, the *Traditionalist* type, the *Nursing home* type, the

On-deathbed type, the *Physically handicapped* type, the *Solitary* type, the *Garrulous* type, the *Rich-lifestyle* type, the *Vacationer* type, the *Elder Statesman* type, the *Sage* type, the *Not-wanting-to-retire* type, the *Senile* type, the *Volunteer* type, the *On-welfare* type, the *Golden-ager* type, the *Youth-worshipper* type, and the *Grumpy* type (see also Supplementary Table A1 for more information on the subgroups associated characteristics and frequencies).

Main Study

Method

Participants

Cultural samples were recruited from countries that, according to Marcus and Fritzsche (2016), are collectivistic-tight (Japan: N = 193; Portugal[2]: N = 84; Lebanon[3]: N = 225) or individualistic-loose (Germany[2]: N = 157; USA: N = 160). Participants were university students and were, due to the cultural focus of this study, excluded from the analysis if they were living in the respective country for less than 10 years or did not provide information about the time of residence in the country. This resulted in a final sample of 117 in Japan (JP: 5.4% female; M_{age} = 20.17, SD = 2.23), 79 in Portugal (PT: 82% female; M_{age} = 20.48; SD = 5.40), 175 in Lebanon (LB: 56% female; Mo_{age} = 18-25)[4]; 150 in Germany (DE: 81% female; M_{age} = 30.02; SD = 11.30) and 129 in the US (60.5% female; M_{age} = 35.40, SD = 11.70)[5].

Materials and Procedure

[2] Please note that Marcus and Fritzsche (2016) mention that the categorisation of Germany and Portugal is considered to be tight based on scores in the seminal study (Gelfand, et al., 2001) but loose based on a different methodology standard deviation scores in values, norms and behaviours in a subsequent study (Uz, 2015).

[3] Lebanon is not mentioned by Marcus and Fritzsche (2016) because it was not part of the tightness-looseness study and, therefore, has no country score. However, Middle Eastern countries are considered to be collectivistic and tight which is why we categorised it as such.

[4] Collaborators in Lebanon preferred to assess age by presenting age intervals: 18-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-60; 61-65; >65, thus the value presented refers to the mode.

[5] The US sample was composed of 94 participants recruited via MTurk.

The Qualtrics questionnaire was completed online. Participants were first introduced to the concept of subgroups and then asked about their meta-perception regarding the 19 subgroups of older people from the Pilot Study (e.g., *Please tell us, how likely it is that most people in the U.S. view [subgroup] as [item]?*"). In order to allow for the identification of culture-specific old age subgroups (emic approach), participants from Japan, Portugal, Lebanon and Germany were also asked to further indicate subgroups of older people that they might think of, but which were not listed. If they mentioned an additional subgroup, they were asked the same stereotype content items about this subgroup.

All materials were translated into the local language of the country (Japanese, Portuguese, German) using back-translation procedures or a committee approach. The sample from Lebanon responded to the questionnaire in English as it corresponded to the language of instruction of the respective university.

Perceived status. Participants were asked to indicate how most people in their society view the social status of the 19 listed subgroups (1 = *Extremely low status*; 10 = *Extremely high status;* Fiske et al., 2002).

Perceived threat. Participants indicated he extent to which the 19 listed subgroups are commonly perceived as an economic burden to society (1 = *No burden at all*; 10 = *A great burden*). This item is often used to assess realistic threat perceptions (Stephan & Stephan, 2000) in relation to older people (e.g., Abrams et al., 2011).

Stereotype content. Participants evaluated the 19 listed subgroups in regard to their perceived competence with the items competent and capable and warmth with the items warm and friendly (1 = *Not at all likely to be viewed in that way*; 5 = *Very likely to be viewed in that way;* Fiske et al., 2002). The items were presented in random order. At the aggregated subgroup level, and for all samples, the two competence items as well as the two warmth

items correlated highly at least .98 ($p < .001$) and were, therefore, averaged to form two composite scores.

Intergroup emotions. Participants were asked to indicate the extent to which the 19 listed subgroups were viewed with contempt, admiration, envy, and pity in their society (1 = *Not at all likely to be viewed in that way*; 5 = *Very likely to be viewed in that way;* Fiske et al., 2002). The items were presented in random order.

Typicality. Participants rated how typical each of the 19 subgroups was for older people in general to identify old age prototypes (1 = *Not typical at all*; 7 = *Very typical*; e.g., Hummert, 1990, 1993).

Age boundaries. Participants reported the age boundary most people would associate with the 19 subgroups. Following previous works (e.g., Hummert, 1990, 1993), answers were given on a categorical scale with 7 response options: 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85 and older.

Socio-demographics. Participants provided information about their gender, age, country of birth and length of stay in the U.S.

Results

A descriptive summary of the results will be presented in following order: first results for typicality and age boundary ratings will be reported as they provide crucial insights into the prototypicality and age characteristics of *each* evaluated subgroup. We then move to the stereotypical evaluations to identify clusters of old age subgroups. We finally validate the clusters by testing whether they differ regarding the hypothesised intergroup emotions and socio-structural variables (perceived status and threat).

Typicality

Across all cultural samples, the *Grandmother* and the *Grandfather* were perceived as the most typical subgroups of the overarching category of older people (Table 1). There was somewhat less consensus across cultures about the least typical subgroup which consisted of the *Youth-worshipper* (USA, JP), the *Elder Statesman* (PT), the *Sage type* (DE), and the *Physically Handicapped* (LB) (for more details, see Table 1).

Age boundaries

As shown in Table 1, all samples seemed to agree on the age boundary associated with the *Grandfather* (70-74 years), the *Grandmother* (70-74 years), and the *Youth-worshipper* types (55-59 years). Notably, all samples tended to associate the subgroups that might be seen as more active (e.g., the *Vacationer,* the *Volunteer*, the *Youth-worshipper* types) with younger age boundaries (e.g., 65-69 years) and to associate those subgroups that might be seen as less active (e.g., the *Nursing home*, the *On-deathbed*, the *Senile* types) with older age boundaries (e.g., 80-84 years). Though there were differences across the cultural samples in the age boundaries associated with the subgroups, for about half of the subgroups the difference was minor reflecting only 5 or 10 years of difference the most. For the other half of the subgroups there were discrepancies reaching up to 30 years of difference. The pattern seemed to be driven to some extent by the Portuguese sample that associated particularly low age boundaries (55-59 years) with some subgroups (the *Golden-ager*, the *Not-wanting-to-retire*, the *Elder Statesman*, the *Rich-lifestyle* types) and high boundaries (85 years and older) with other groups (the *Senile*, the *Physically handicapped* types). The Japanese sample also associated a particularly high age boundary with the *Golden-ager* type (85 and older) and low with the *On-deathbed* type (70-74 years) in comparison to the other samples. Moreover, the German sample associated the *On-welfare* type with a much lower age boundary (55-59 years) than all other samples. These

differences might to some extent reflect country-specific variability in contextual factors, such as policies (e.g., regarding the *On-welfare* type in Germany), cultural norms (e.g., for the *Elder Statesman* type in Portugal) as well as perceptions of population ageing (e.g., regarding the *Golden-ager* type in Japan).

[Table 1 about here]

Stereotype Content Map

Participants were also asked whether the presented list of subgroups of older people was missing an important subgroup, and if so, to list and evaluate them regarding their perceived competence and warmth. A total of four additional old age subgroups were mentioned and evaluated: the Nosy type (in the US sample), the Living in the Past type and the Complaining type (in the German sample) as well as the Religious type (in the sample from Lebanon). These subgroup evaluations were included in producing the stereotype content map for each cultural sample.

We performed a combination of hierarchical cluster analysis and k-means cluster analysis (see Cuddy et al., 2009; Fiske et al., 2002) in order to identify the stereotype map for old age subgroups in each sample. We started by performing a hierarchical cluster analysis (Ward method) to determine the clustering pattern of all objects. We then examined the dendrograms and the agglomeration schedule coefficients (η^2) to determine the best number of clusters. This led to a three-cluster solution for all samples (see Figure 1 and Table 2) and not a four-cluster solution, therefore, disconfirming our expectations that old age subgroups would fall into all four quadrants of the SCM map (H1).

GLMs confirmed that the three clusters were overall well differentiated in terms of perceived warmth and competence evaluations regarding the more extreme Clusters 1 and 3 (for details, see Table 3). For the interpretation of the clusters, we considered whether the

cluster centres rounded to the next full number were closer to the lower end (interpreted as low competence/ warmth), the midpoint (interpreted as moderate competence/ warmth) or the higher end of the rating scale (interpreted as high competence/ warmth; see also Table 3).

Figure 1 shows that there is an underlying positive gradient characterising the cluster arrangement with low, moderate, and high evaluations on both dimensions regarding Cluster 1 (e.g., the Handicapped and On-Welfare types), Cluster 2 (e.g., the Rich and Traditionalist types) and Cluster 3 (e.g., the Volunteer and Grandfather/mother types) for the Japanese, Portuguese, and German samples. The US sample deviates slightly by showing low, instead of moderate, warmth evaluations for subgroups in Cluster 2. The Lebanese sample produced also a 3-cluster solution, yet with a somewhat different arrangement in the 2-dimensional space. Cluster 1 was characterised by low competence and moderate warmth evaluations (LC/ MW) containing similar subgroups compared to the other samples. Cluster 2 was characterised as moderate on competence and low on warmth (MC/ LW; i.e., the Solitary and Grumpy types) instead of moderate on both dimensions as it was the case for the other samples. Cluster 3 contained again subgroups with the most positive evaluations on both dimensions, similarly to what was obtained with the other cultural samples but was only characterised by moderate competence and warmth (MC/ MW) perceptions.

A chi-square test was run by comparing the number of subgroups assigned to each of the three clusters by the individualistic-loose (USA, DE) and the collectivistic-tight cultures (JP, PT, LB). The results were non-significant (p = .115), therefore, rejecting H4 and suggesting that the cultural samples do not differ along what might be expected based on the cultural anchors of ageism model (Marcus & Fritsche, 2016). The samples from collectivistic-tight

cultures did not show more ageist tendencies by including more subgroups of older people in the clusters that are evaluated negatively on one or both dimensions (Clusters 1 and 2) than the samples from individualistic-loose cultures.

[Figure 1 about here]

[Table 2 around here]

[Table 3 around here]

Intergroup emotions

Table 3 shows that Cluster 1 (LC/LW; LC/ MW in Lebanon) elicited mostly pity across all samples and not contempt as would be expected from the SCM (see H2). As expected, Cluster 3 (HC/ HW; MC/ HW in Japan and MC/ MW in Lebanon) elicited mostly admiration across all samples. For cluster 2 (MC/ MW; MC/LW in Lebanon and in the US) admiration scores were higher than for all other emotions except in the Lebanese sample where pity scored the highest, and for the US sample where contempt scored the highest (e.g., for the Solitary type). However, the means were all around the mid-point of the scale indicating that no distinct emotions were strongly associated with the subgroups in this cluster.

Perceived status and threat

For all the cultural samples, the results revealed that the 3 clusters differed in terms of their perceived social status and threat (for details, see Table 3). In general, Cluster 1 (LC/LW; LC/ MW in Lebanon) yielded the lowest status and the highest threat evaluations, while Cluster 3 (HC/ HW; MC/ HW in Japan and MC/ MW in Lebanon) tended to yield higher status and lower threat perceptions. Cluster 2 (MC/ MW; MC/LW in Lebanon and in the US) tended to fall in-between Clusters 1 and 3 with moderate status perceptions (except in the Lebanese sample) and low threat perceptions (except for the Lebanese sample).

Correlations at the aggregated subgroup level confirm H3 by showing a significant positive correlation for status and competence perceptions across cultural samples ($r_{minimum}$ (19) = .84, p <.001); and a negative association between threat and warmth perception ($r_{minimum}$ (19) = -.38, ns), yet only significantly in the Japanese sample (r(19) = -.65, p <.01).

Discussion

Drawing on the stereotype content model, this paper reported a cross-cultural study aiming at identifying contemporary old age subgroups (Study 1) and examining how they are perceived across cultures (Study 2). In general, the results show that there are remarkable consistencies in the way subgroups of older people are perceived. We identified three clusters of old age subgroups which were either stereotyped positively on the warmth and competence dimensions, or negatively or somewhat in-between. Stereotypes were also associated with the corresponding intergroup dimensions perceived status and threat. Furthermore, the intergroup emotion of admiration was consistently associated with the positively stereotyped cluster. Yet, surprisingly the negatively stereotyped cluster did not elicit outright contempt, but the ambivalent intergroup emotion of pity which is usually associated with the general category of older people that is stereotyped as warm but not so competent (Cuddy, & Fiske, 2002). This might constitute a positive baseline, given that pity results from a positive evaluation on one dimension, whereas contempt follows from negative evaluations on both dimensions. In fact, across all cultural samples we found little evidence for subgroups that are perceived in a clearly ambivalent fashion. Rather, the clusters tend to follow a gradient from low competence-low warmth evaluations (eliciting pity) to medium appraisals (not eliciting consistently any particular emotion) to high competence-high warmth evaluations (eliciting admiration). This result is particularly interesting given the apparent ´universality´ of the stereotype of older people as ´doddering

but dear´ (Cuddy et al., 2005; Cuddy et al., 2009). The difference between these studies and our research is that older people were just one among many social groups evaluated along the competence and warmth dimensions. The inclusion of ingroups in previous studies, which are usually evaluated as high in competence and warmth, could have served as a baseline for the evaluations of other groups and explain why we obtained no clearly ambivalent old age subgroup. Yet, at least one previous study did not include any ingroups either and still obtained ambivalent subgroups (regarding gay males; Clausell & Fiske, 2005). Hence, it remains puzzling that among the many old age subgroups we examined, there were no clearly ambivalent subgroups along the competence and warmth dimensions. One explanation might also be that the old age subgroups were not construed as group entities by participants, but as individuals. Past research has shown that competence and warmth traits are positively correlated when they describe individual targets (Rosenberg, 1968), but not when describing group entities (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). For example, individuals who are seen as possessing more positive intellectual characteristics are also seen as possessing more positive social qualities -- a phenomenon that has been coined the halo effect. However, groups that are seen to be higher on one dimension (e.g., competence), are judged to be lower on the other (e.g., warmth) -- referred to as the comparative compensatory process. Future research could try to replicate these finding as well as the underlying reasons for a lack of clearly ambivalent evaluations in old age subgroups. In this context, it would be valuable to include the broader category of older people for comparison with stereotype content evaluations from previous studies that have assessed various social groups (including older people).

Regarding cultural differences in the evaluation of old age subgroups, the current results suggest that these differences are negligible: We found three clusters of subgroups in

all samples, with many subgroups being included by most samples in the same cluster and, thus, evaluated in the same way in terms of competence and warmth between the samples categorized as collectivistic-tight or individualistic-loose cultures. These results are highly informative for the portrayals and representations of older people in different societies such as the mass media: Increasing the presence of unambiguously positive old age subgroups, such as the Grandmother and Grandfather type, could reinforce a positive social representation of older people in the general public. The results also suggest that subgroups that are seen as typical of the broader category of older people can be viewed as both competent and warm which means that being perceived as competent does not automatically equal a perception of exception and atypicality as it would be expected if the ´doddering but dear´ stereotype was indeed prototypical. While the identification of positive old age subgroups is encouraging, it is important to keep in mind that these were generated and evaluated by younger generations, i.e. the outgroup. It is possible that emphasizing positive old age subgroups like the Grandmother or Grandfather might foster societal expectations in the form of prescriptive stereotypes about old age, such as ´acting your age´ (North & Fiske, 2013b). Therefore, while promoting positive representations of older people is valuable, it is essential to do so in a way that acknowledges the complexity and diversity of the aging experience, instead of reinforcing ideas about how older people should be.

There is already previous work on the diversity of old age subgroups, yet different methodologies were used, mostly 15 to 30 years ago and in the U.S. American context yielding very culture-specific old age subgroups (e.g., the John Wayne type). More importantly, the SCM was not used as a theoretical framework and methodological tool to examine the stereotypical evaluation of old age subgroups. Nevertheless, there are some similarities between the subgroups identified in the seminal work of Schmidt and Boland

(1986) and our present work, for example, the Recluse resembles our Solitary type and the Shrew our Grumpy type. Despite these similarities, there are also important differences. For example, the Perfect Grandparent seems to be a broader subgroup than our Grandmother and Grandfather types, not only because there is no gender differentiation, but also because in Schmidt and Boland´s study it is associated with characteristics such as volunteer, which is a subgroup on its own in the present work. Moreover, our study produced more subgroups than previous works (19 compared to 12, see for example, Schmidt & Boland, 1986), therefore pointing to a more differentiated perception of contemporary older people. Finally, some subgroups do not seem to have stood the test of time, namely the Bag Lady/Vagrant and the John Wayne conservative. Thus, though there seems to be some stability in the way different older people are perceived and described, there are also noticeable differences which might be due to the specific cultural context, the time when the studies were conducted, or the specific methodology and measures used to identify subgroups and their evaluation.

Limitations and Future Research

A limitation of this study is the use of single-item measures to access perceived status and threat, i.e., the socio-structural variables. Even though the use of single-item measures is not ideal, it is worth noting that these items have been identified to be valid indicators of ageism (e.g., Vauclair, Abrams, & Bratt, 2010).

Furthermore, there are limitations regarding the cross-cultural samples: they rely heavily on student data, are not always clearly differentiated as individualistic-loose and collectivistic-tight in previous research (see Marcus & Fritzsche, 2016) and do not cover non-industrialized cultural groups. Hence, there may be cultural differences and culture-specific old age subgroups that we did not capture with our cultural samples. Moreover, the old age

subgroup generation study relied on a sample from the U.S. We tried to address this issue by including an open-ended question into the main study and asking participants about additional subgroups beyond the 19 presented to them. This resulted in very few additional subgroups across all cultural samples: the *Religious* type in Lebanon, the Complaining Type and Living-in-the-past type in Germany and the Nosy type in the U.S. Nevertheless, a truly emic approach in every step of the research design could have yielded greater insight into cultural specificities. By applying subgroups derived from a U.S. sample to the cultural samples in the main study, we may have unintentionally skewed our results towards identifying similarities rather than cultural differences. Furthermore, we did not explicitly evaluate whether the subgroups identified in the pre-test using a US sample are applicable to other cultural samples. Participants were given the option to skip items related to subgroups, for example, if they found them irrelevant. Yet, we identified very few missing values (ranging from 0 to 1.3%). Nevertheless, it would have been beneficial to include an additional question for each subgroup of older adults to ascertain their relevance within their respective cultural contexts. In future research, employing an emic methodology in different cultures for the free-listing of subgroups, and sampling culturally diverse groups that are maximally distinct across various dimensions, could provide deeper insight into the issue of cultural differences and similarities regarding subgroups of older individuals.

Another limitation is that this work does not consider the issue of intersectionality which has been suggested to be an important avenue for research in this area (Holman & Walker, 2020). Most old age subgroups were not clearly gendered, the only exceptions being the Grandmother/father types and the Statesman type which strongly suggests a male political leader. For the remaining subgroups and given the linguistic tendency in these specific cultures to use the masculine as the default, we might assume that participants were

considering only older males when evaluating the subgroups. Future research may specifically look at how the intersection of gender and old age affects the subgroups' stereotypical evaluation. For example, the Rich-lifestyle type was evaluated as relatively competent which might result from associations of a well accomplished patriarch after a life of economic successes. Yet, the female equivalent might be judged entirely differently because stereotypically her wealth might be attributed to other factors than self-determined economic success (e.g., inheritance), therefore, discounting her perceived competence.

Conclusion

The increasing ageing population inspires a gloomy picture of the future with ageism being a major socio-psychological concern (North & Fiske, 2012). Yet, this population is also becoming more diverse which provides both challenges and opportunities. A better understanding of old age subgroups and its implications for ageism will help societies accommodating to a growing and diverse older population (North & Fiske, 2013b). With these studies, we addressed an important gap by providing evidence on the way contemporary old age subgroups are evaluated across different ages and cultures. Considering that we did not find evidence for a clearly ambivalent evaluation of old age subgroups in either of the samples raises questions about the ´doddering but dear´ stereotype (e.g., Cuddy et al., 2002) which has been suggested to be a universal stereotype about older people (Cuddy et al., 2009). It might be useful to provide a clearer frame of reference by recurring to specific subgroups in future studies on old age stereotypes to avoid any ambiguity about the target that is being evaluated.

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Table 1
Typicality and Age Boundaries Perceptions of Different Subgroups of Older People across Cultural Groups

	Typicality (M, SD)					Age boundaries (Mo)				
Older people subgroup	USA	Japan	Portugal	Germany	Lebanon	USA	Japan	Portugal	Germany	Lebanon
Grandmother type	5.84, 1.07	5.01, 1.62	6.36, 0.88	5.66, 1.18	5.78, 1.33	70-74	70-74	70-74	70-74	70-74
Grandfather type	5.82, 1.09	5.00, 1.58	6.39, 0.78	5.61, 1.25	5.87, 1.21	70-74	70-74	70-74	70-74	70-74
Traditionalist type	5.11, 1.19	4.55, 1.60	5.29, 1.32	5.09, 1.46	5.64, 1.43	70-74	70-74	80-84	70-74	70-74
Nursing home type	4.87, 1.52	4.47, 1.49	5.94, 1.07	5.30, 1.45	4.14, 1.60	80-84	70-74	80-84	80-84	80-84
Grumpy type	4.76, 1.33	4.17, 1.39	3.50, 1.64	3.55, 1.44	3.77, 1.45	75-79	70-74	80-84	75-79	75-79
Garrulous type	4.51, 1.27	4.90, 1.55	4.43, 1.39	3.81, 1.31	4.19, 1.56	70-74	65-69	70-74	65-69	70-74
Senile type	4.16, 1.72	4.51, 1.64	4.90, 1.54	4.87, 1.51	4.41, 1.47	80-84	70-74	85 and older	80-84	80-84
Golden-ager type	4.15, 1.30	4.19, 1.46	5.44, 1.22	4.45, 1.57	4.15, 1.57	70-74	85 and older	55-59	65-69	65-69
Volunteer type	4.08, 1.45	3.70, 1.52	5.18, 1.21	5.01, 1.40	4.08, 1.53	55-59	65-69	55-59	65-69	55-59
Physically handicapped type	4.06, 1.45	3.75, 1.61	3.19, 1.42	3.57, 1.54	3.06, 1.62	80-84	70-74	85 and older	80-84	80-84
Vacationer type	3.92, 1.30	3.80, 1.52	5.19, 1.49	4.76, 1.44	4.71, 1.54	65-69	60-64	55-59	65-69	55-59

On-welfare type	3.90, 1.23	4.33, 1.49	5.07, 1.15	4.42, 1.45	4.78, 1.47	70-74	70-74	70-74	55-59	70-74
Not-wanting-to-retire type	3.87, 1.45	3.77, 1.51	3.74, 1.48	3.32, 1.33	4.21, 1.59	65-69	70-74	55-59	65-69	65-69
Solitary type	3.79, 1.55	4.37, 1.48	4.29, 1.41	4.10, 1.53	5.04, 1.42	70-74	70-74	80-84	80-84	70-74
On-deathbed type	3.75 1.50	3.97, 1.66	5.25, 1.45	4.05, 1.87	4.54, 1.64	85 and older	70-74	85 and older	85 and older	85 and older
Sage type	3.69, 1.76	3.90, 1.52	5.21, 1.32	3.16, 1.51	4.00, 1.46	70-74	70-74	70-74	75-79	75-79
Elder Statesman type	3.31, 1.49	3.64, 1.81	2.85, 1.51	3.43, 1.51	4.23, 1.47	70-74	70-74	55-59	70-74	70-74
Rich-lifestyle type	3.03, 1.34	3.71, 1.37	3.36, 1.50	3.22, 1.36	4.30, 1.68	65-69	70-74	55-59	65-69	55-59
Youth-worshipper type	2.71, 1.25	3.41, 1.52	3.61, 1.35	3.28, 1.31	3.89, 1.48	55-59	55-59	55-59	55-59	55-59

Notes. The subgroups of older people are presented in descending order of typicality ratings, according to mean scores of the USA participants. Mo = Mode.

Table 2
Subgroups Cluster Assignments across Cultural Groups

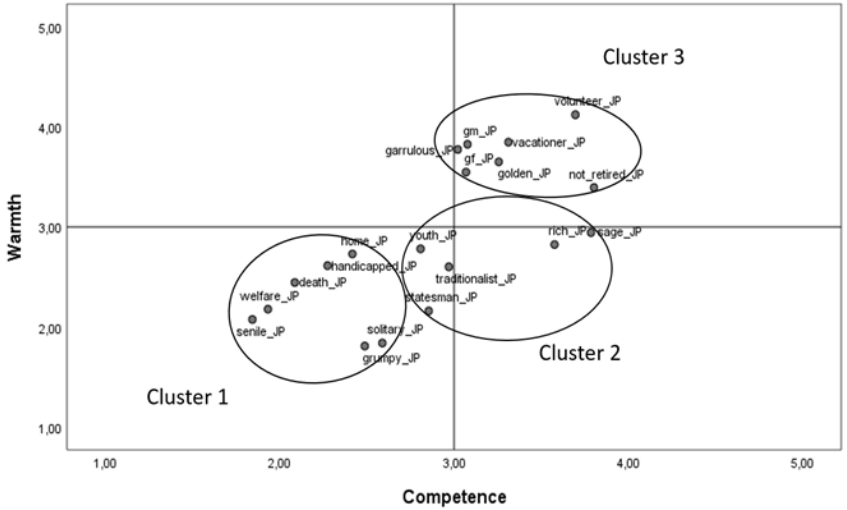
	Cross-cultural samples				
Subgroups	USA	Japan	Portugal	Germany	Lebanon
Grandfather type	3	3	3	3	3
Grandmother type	3	3	3	3	3
Traditionalist type	2	2	2	2	3
Nursing-home type	1	1	1	1	1
On-deathbed type	1	1	1	1	1
Handicapped type	1	1	1	1	1
Solitary type	2	1	1	1	2
Garrulous type	2	3	2	2	3
Rich-lifestyle type	2	2	2	2	3
Vacationer type	3	3	3	3	3
Elder Statesman type	3	2	1	2	3
Sage type	3	2	3	3	3
Not-wanting-to-retire type	3	3	2	2	3
Senile type	1	1	1	1	1
Volunteer type	3	3	3	3	3
On-welfare type	1	1	1	1	1
Golden-ager type	3	3	3	3	3
Youth-worshipper type	2	2	3	2	3
Grumpy type	2	1	1	1	2
Nosy type	2	-	-	-	-
Living the past type	-	-	-	1	-
Complaining type	-	-	-	1	-
Religious type	-	-	-	-	1

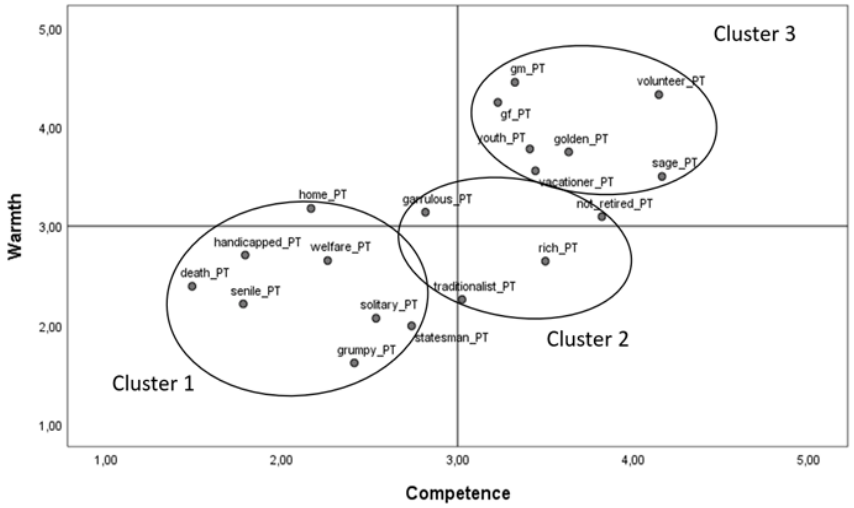
Table 3

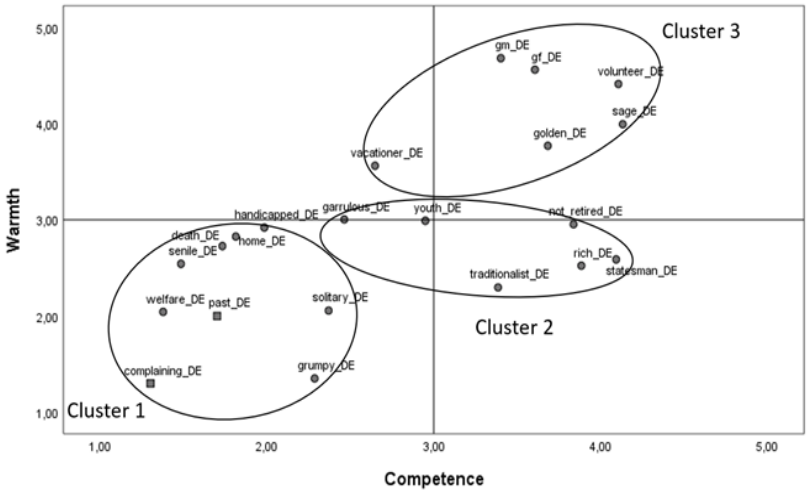
Stereotype Content Measures Means for Each Cluster across Cultural Groups

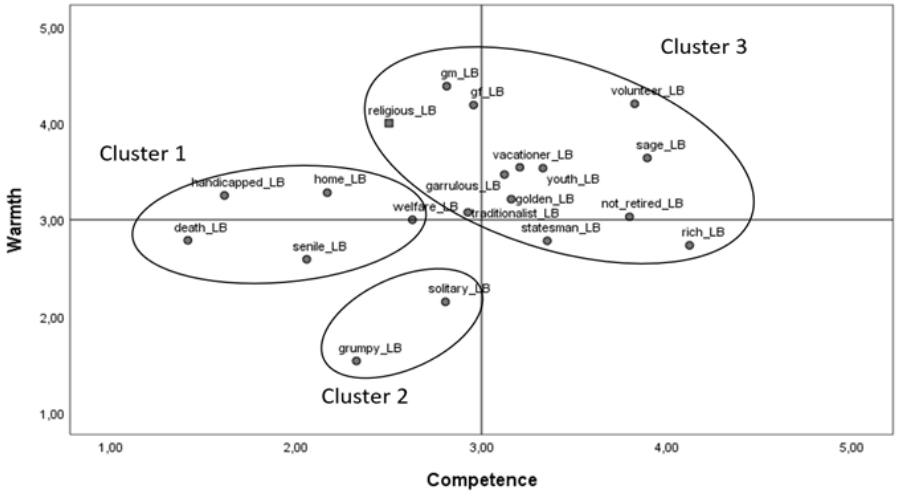
		Stereotype content		Emotions				Socio-structure	
Sample	Cluster	Competence	Warmth	Contempt	Admiration	Envy	Pity	Status	Threat
USA	1 (LC / LW)	1.48_a	2.31_a	**2.52**	1.59†	1.22*	4.30***	2.46_a	7.42_a
	2 (MC / LW)	3.21_b	2.39_a	2.73	2.55	**2.22**	2.20	4.66_b	2.97_b
	3 (HC / HW)	3.81_c	3.81_b	1.92***	**3.69**	2.83***	1.86***	6.42_c	2.51_b
Japan	1 (LC / LW)	2.23_a	2.24_b	**3.02**	2.07**	1.68***	3.49	3.26_a	5.39_a
	2 (MC / MW)	3.20_b	2.66_b	2.53	3.06	2.96	2.22	5.88_b	3.81_{ab}
	3 (MC / HW)	3.32_b	3.74_a	2.02***	**3.31**	3.15	2.03***	5.66_b	3.15_b
Portugal	1 (LC / LW)	2.15_a	2.35_b	**3.25**	1.98***	1.91***	3.57	3.73_a	5.69_a
	2 (MC / MW)	3.29_b	2.78_b	2.69	2.92	2.75	2.06	5.39_b	3.39_b
	3 (HC / HW)	3.62_b	3.94_a	2.14***	**3.91**	3.22†	2.15**	6.12_b	3.09_b
Germany	1 (LC / LW)	1.78_a	2.20_b	**3.67**	1.44***	1.25***	3.77	2.56_a	6.23_a
	2 (MC / MW)	3.44_b	2.73_b	2.59	3.02	**2.88**	2.06	5.74_b	2.57_b
	3 (HC / HW)	3.60_b	4.16_a	2.03***	**3.84****	3.57	1.79***	6.36_b	2.75_b
Lebanon	1 (LC / MW)	2.06_b	3.15_b	2.81**	2.36***	1.84**	**3.97**	3.74_a	6.06_b
	2 (MC / LW)	2.56_b	1.84_a	2.96	2.04†	1.96	3.26	3.74_a	4.83_{ab}
	3 (MC / MW)	3.38_a	3.48_b	2.80***	**3.55**	3.13†	2.37***	6.04_b	3.77_a

Notes. C = competence, W = warmth; LC = low competence, LW = low warmth; MC = moderate competence, MW = moderate warmth; HC = high competence, HW = high warmth. Emotions: Numbers in boldface indicate emotions predicted to be high for particular clusters. Within-cluster comparisons, within each line and with reference to the number in bold face, paired t-tests with a Bonferroni correction significant at: *** $p < .001$, ** $p < .01$, * $p < .05$, † $p \leq .10$. Stereotype and Socio-structure: Between–clusters comparisons, within each column: means that do not share a subscript differ, post-hoc tests with Bonferroni correction significant at $p < .05$.


Cluster 3
Cluster 2
Cluster 1
volunteer_JP
gm_JP
vacationer_JP
garrulous_JP
gf_JP
golden_JP
not_retired_JP
rich_JP
sage_JP
home_JP
youth_JP
handicapped_JP
traditionalist_JP
death_JP
statesman_JP
welfare_JP
senile_JP
solitary_JP
grumpy_JP
Warmth
Competence
5,00
4,00
3,00
2,00
1,00
1,00
2,00
3,00
4,00
5,00


Cluster 3
Cluster 2
Cluster 1
gm_PT
volunteer_PT
gf_PT
youth_PT
golden_PT
sage_PT
vacationer_PT
not_retired_PT
home_PT
garrulous_PT
handicapped_PT
welfare_PT
rich_PT
death_PT
traditionalist_PT
senile_PT
solitary_PT
statesman_PT
grumpy_PT
Warmth
Competence
5,00
4,00
3,00
2,00
1,00
1,00
2,00
3,00
4,00
5,00


Cluster 3
Cluster 2
Cluster 1
gm_DE
gf_DE
volunteer_DE
sage_DE
golden_DE
vacationer_DE
handicapped_DE
garrulous_DE
youth_DE
not_retired_DE
death_DE
home_DE
senile_DE
rich_DE
statesman_DE
traditionalist_DE
welfare_DE
past_DE
solitary_DE
complaining_DE
grumpy_DE
Warmth
Competence
5,00
4,00
3,00
2,00
1,00
1,00
2,00
3,00
4,00
5,00


Cluster 3
Cluster 1
Cluster 2
gm_LB
gf_LB
volunteer_LB
religious_LB
sage_LB
vacationer_LB
youth_LB
handicapped_LB
home_LB
garrulous_LB
golden_LB
not_retired_LB
welfare_LB
traditionalist_LB
death_LB
statesman_LB
rich_LB
senile_LB
solitary_LB
grumpy_LB
Warmth
Competence
5,00
4,00
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2,00
3,00
4,00
5,00

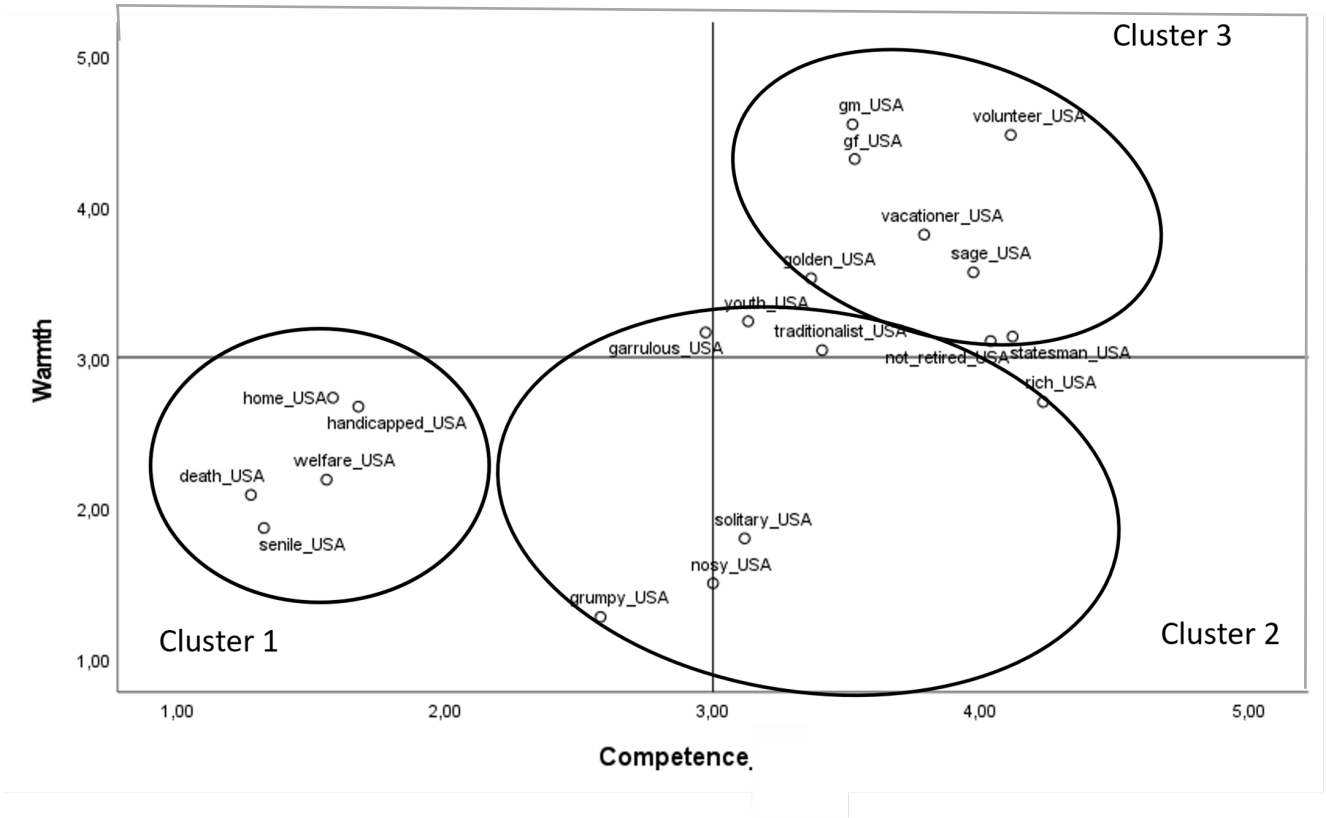

Figure 1. Three-Cluster Solution Stereotype Maps for the all the samples: Japanese (JP), Portuguese (PT), Lebanese (LB), German (DE), and US-American (US).

Note. The subgroups marked with a square symbol instead of a triangle represent additional subgroups mentioned by the participants from the US (the Nosy type), Germany (the Complaining Type and the Living-in-the-past type) and Lebanon (the Religious type).