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Age Vitality Across Eleven Nations

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This paper is the second in a series of empirical applications of the concept of (ethnolinguistic) vitality into the intergenerational arena. It examines young people's assessments of the subjective vitalities of young, middle-aged, and elderly targets in four Western (midwest USA, Canada, Australia, and New Zealand) and seven south and east Asian sites (Japan, South Korea, Singapore, Taiwan, mainland China, The Philippines, and India). The results support earlier findings (in Hong Kong and California) in that, relative to young adult targets, the elderly were rated as having more vitality in the Western than the south and east Asian settings; the middle-aged were seen as having the highest vitality across all nations. Differences in the age vitality profiles between the different nations allowed identification of three distinct patterns. The study also provided intriguing cross-cultural data on how respondents construed the onsets of young adulthood, middle age, and old age as well as the ends of the former two categories. The findings are related to other cross-cultural studies of intergenerational communication and age stereotyping, and future research directions are highlighted.

The nature of communication between members of different social groups obviously depends upon the social setting in which it occurs as well as the dynamics of the sociostructural background in which these groups are embedded. In order to explore the latter in the inter-ethnic sphere as well as relate it to language use, Giles, Bourhis and Taylor (1977) introduced the concept of 'vitality' which articulated some of the main sociostructural features defining a group, such as its sociohistorical status, numbers of its members, institutional support provided it, and so forth. In this regard, dominant ethnic groups usually have higher vitality across a range of vitality constituents than subordinate ethnic groups. Not only has it been possible to analyse a group's objective vitality (e.g. number of TV channels and newspapers in the ingroup language) and compare it then to relative others in the locale, but researchers have measured how group members themselves construe their own and each other's *perceived* vitalities. While there has often been a close association between objective and subjective indices of vitality, a growing body of vitality literature across the world over the last 20 years has shown that individuals' perceptions of ethnolinguistic vitality are a function (amongst other factors) of their groups' majority–minority status and the sociopolitical changes occurring between them (see Harwood, Giles & Bourhis, 1994, for a review).

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In the initial treatise, it was argued that the more vitality individuals consider their social group to possess, the more likely they will invest their energies (linguistic and non-linguistic) in order to preserve the ingroup's identity, activities, and influence (see also, Sachdev & Bourhis, 1993). In this respect, studies have shown that individuals who perceive their ethnic group to have high vitality will have stronger motivation to learn, as well as increased proficiency in, their ingroup tongue than those construing their vitality to be lower (see Cenoz & Valencia, 1993; Clachar, 1997; Leets & Giles, 1995). While such relationships have not always emerged (Labrie & Clément, 1986; Hogg & Rigoli, 1996), and low vitality can also trigger ethnic mobilisation (e.g. Giles & Viladot, 1994), work continues to blossom cross-disciplinarily and cross-nationally concerning the descriptive and explanatory roles of vitality (e.g. Florack & Piontkowski, 1997; Landry & Bourhis, 1997; Yagmur *et al*., 1999).

The utility of the vitality concept should not, of course, be limited to inter-ethnic communication and has been invoked in (frequently 'intercultural') analyses of between-gender (Kramarae, 1981), hetero-homosexual (Mays *et al.*, 1992), and intergenerational (Harwood *et al.*, 1994) relations, and it is this last sphere that is the focus of our cross-cultural investigation here. Harwood and his associates, in an adaptation of the original vitality questionnaire (Bourhis *et al*., 1981) for this intergroup setting, requested young adults in California and Hong Kong to evaluate the vitalities of young adults, middle-aged, and older people. Interestingly, both groups of students rated the vitalities of middle-aged people highest, however, they differed in their patterns for the other two groups. Hong Kong students rated the vitalities of older adults lower than their Californian counterparts, but rated young targets in the opposite fashion. Put another way, the profiles for the two groups were as follows:

Hong Kong = *middle-aged* > *young* > *elderly*

California = *middle-aged* > *elderly* > *young*

Harwood *et al.* (1994) accorded most of their interpretive attention to the younger-older findings which were, in part, surprising given the Confucian ethic of filial piety which ascribes status to, and respect for, older people in many south and east Asian nations (see Gallois *et al.*, 1999; Ho, 1994; Kiefer, 1992). Nonetheless, there is evidence that filial piety has been eroding in Hong Kong and elsewhere (see Ikels *et al*., 1992) given moves towards the nuclear family, modernisation and westernisation, youth-oriented values, and so forth. Indeed, age stereotype research has also reflected more negative images of the elderly in Hong Kong than in California (Giles *et al*., 1998; Harwood *et al*., 1996) with Hong Kong students reporting their past conversations with (non-family) elderly to have been inherently more problematic than their Australian counterparts (Noels *et al*, in press; see also, Williams *et al.* 1997).

Perhaps more importantly as a possible explanation, the low perceived vitality of Hong Kong elders may very well be a veridical reflection of the declining power of elders relative to the young in the territory. While elders, many of whom did not have much formal education, have been left behind in Hong Kong's rapid modernisation over the last few decades, there have been vast improvements in the education and earning powers of the young, especially

in their ability to keep abreast with on-going social changes. As a social category, the *current* cohort of Hong Kong elders is far less powerful than its counterpart in California, where early modernisation has had ample time to produce an empowered generation of elders (Powell *et al.*, 1996). Simply put, there is (as yet) no equivalent of American Grey Power in Hong Kong. This objective power explanation, already alluded to by Ng and Bradac (1993) among others, would suggest that the next generation of Hong Kong elders may regain some or more of their traditional power, and this should be reflected in their perceived vitality. As such, the results have considerable historical, comparative value.

It seemed important to follow up on the only age vitality investigation thus far reported and, especially so, given subsequent work in other areas of related interest seemed to confirm the pattern that older adults invoke more positive social representations in Western societies than Eastern ones. Hence, the present study extends Harwood *et al.*'s (1994) two-sample setting considerably by investigating perceptions of young, middle-aged, and older adults' vitalities in four Western and seven Eastern settings. While we were interested in determining whether the same gross differences as before would emerge across these two large-scale, cultural domains, we were also interested to see whether other profiles would emerge across these eleven nations than had been described for California or Hong Kong above. Finally, Harwood *et al.*'s gender composition did not allow a formal analysis of the role of this variable in vitality ratings, whereas the current one does.

Method

Respondents

Participants included 1471 university students registered in undergraduate courses in 11 countries: Canada, USA, Australia, New Zealand, Taiwan, The People's Republic of China, Japan, South Korea, The Philippines, Singapore (Chinese respondents), and India (Bengali respondents). Only those participants whose ethnicity was that of the ethnic majority in their country or region were included. For example, in New Zealand, Canada, and the USA subsamples, only those respondents with an Anglo/Western background were included. In Korea and The Philippines, only those participants who were Korean and Filipino, respectively, were included. Also, only those people who were 30 years of age or younger were retained for the analyses (N = 1409). Forty-five per cent of the sample was male, and 52% was female (3% did not indicate their sex). A breakdown of the participants by country and sex is presented in Table 1.

Materials

The participants completed a version of the Subjective Ethnolinguistic Vitality Questionnaire (SEVQ; see Bourhis *et al.*, 1981), adapted for use in intergenerational contexts (see Harwood *et al.*, 1994). This instrument includes 19 items to assess perceptions of young, middle-aged, and older adults with regards to their strength in areas such as the government, education and business institutions and their social prestige and influence. Those subjects with missing values on more than 50% of the items of any of the three scales were dropped from the analyses, while the scores for those with missing values on less than 50% of the

Table 1 Number of participants and their mean age as a function of country of origin and sex

	Age (years) M (SD)	*Males N*	*Females N*	*Total N*
Western nations	19.67 (2.23)	226	264	492
New Zealand (Wellington)	19.88 (2.80)	45	54	100
Australia (Brisbane)	19.00 (2.41)	78	94	172
Canada (Hamilton)	20.02 (1.42)	72	73	145
United States (Norman, OK)	20.36 (1.84)	31	43	75
South/East Asian Nations	20.14 (2.15)	406	471	917
Taiwan (Taipei)	20.78 (3.57)	28	53	88
China (Beijing)	20.51 (1.27)	50	64	144
Japan (Nagoya)	20.53 (0.98)	71	85	156
South Korea (Seoul)	19.99 (2.49)	71	64	135
The Philippines (Manila)	18.00 (1.77)	99	100	199
Singapore	21.80 (1.77)	50	66	116
India (Kolkata – Calcutta)	20.82 (2.14)	37	39	79
Total	19.98 (2.19)	632	735	1409

Note: 42 participants did not indicate their sex.

items of any of the scales were pro-rated for the missing values (Tabachnick & Fidell, 1996). For young adult vitality, Cronbach alpha indices ranged from 0.77 to 0.87 (M = 0.82) across countries; for middle-aged adult vitality, alpha indices varied from 0.73 to 0.85 (M = 0.80); for older adult vitality, indices ranged from 0.69 to 0.85 (M = 0.78).

The participants were also asked to indicate the ages between which adults could be classified as 'young', 'middle-aged', and 'older'. They used their own age estimates as guidelines for thinking about the vitality of each of the three target groups. This method was used by Harwood *et al.* (1994) and produced fairly consistent cross-cultural age estimates. But given that adults appear to vary in what constitutes life phases (especially mid-life), it was felt that allowing respondents their own latitudes would be better than superimposing rigid structures that were not entirely meaningful to them. For example, The American Board of Family Practice (1991) surveyed a national sample of 1200 adults and reported 11% of 18–35-year-olds defined themselves as middle-aged, as well as 30% of their over-75-year-olds (see also Borland, 1978). Academics, and others, have also used different criteria for mid-life as attested by Sherman's (1987) definitional period of 35 to 60 years and the US Census Bureau use of the years 45–64 as boundaries (Bogue, 1959). Previously, we found 37–53 years to be the mid-life span as estimated by young Californian students (Harwood & Giles, 1993). In other words, there do not seem to be clear boundaries to middle age nor, perhaps, for our other two categories either.

Procedure

Students were approached during regular class time and asked to volunteer for the study. In some sites, the students received extra course credit for their

participation. Where English was not the dominant language, the instrument was back-translated (except in The Philippines and India where the main tertiary language in these settings was English).

Results

In the analyses that follow, we first examine gross-level so-called 'Eastern' versus 'Western' differences in the full knowledge that this is a conceptual convenience that side-steps an enormous array of religious, political, and social diversity, and especially so in the former settings. Nonetheless, this distinction has provided very useful in prior research in this domain (see, for example, Williams *et al*., 1997) and, in any case, national differences within the two regions are examined subsequently.

Age estimates across Eastern and Western nations

A multivariate analysis of variance examined differences in the estimates of when young, middle and older adulthood began and of when young and middle adulthood ended across Eastern and Western nations; respondent sex was not included as a factor given that preliminary analyses suggested it had a negligible impact on patterns emerging. Eight participants (0.6%) were dropped from these analyses due to missing values on one or more of the age estimates. In a first analysis, the combined south and east Asian nations were compared with the combined Western nations (i.e. culture – south/east Asian vs. Western) served as a between-subjects across which the five dependent variables were compared. There was a significant multivariate effect (Pillai = 0.98; $F(5,1395) = 15.81$, $p < 0.001$, $eta^2 = 0.05$). Follow-up univariate analyses indicated that were no significant differences between Eastern and Western cultures regarding estimates of the onset of young adulthood ($F(1,1399) = 1.83$, $p = 0.18$, $eta^2 = 0.001$) nor the end of middle age ($F(1,1399) = 1.19$, $p = 0.28$, $eta^2 = 0.001$). There were significant differences between the groups with regards to the end of young adulthood ($F(1,1399) = 14.36$, $p < 0.001$ $eta^2 = 0.01$), the onset of middle age ($F(1,1399) = 47.06$, $p < 0.001$, $eta^2 = 0.03$), and the onset of old age ($F(1,1399) = 7.67$, $p = 0.006$, $eta^2 = 0.01$). An examination of the means (see Table 2) indicated that, where there was a statistically significant difference between groups, the estimates were higher in south and east Asia than in Western nations.

A follow-up MANOVA examined variations in age estimates across countries within Western nations. There was a significant multivariate effect (Pillai = 0.93; $F(15,1455) = 2.49$, $p < 0.001$, $eta^2 = 0.03$). Univariate results indicated that there were no differences between nations with regards to estimates of the onset and end of young adulthood ($F(1,487) = 2.51$, $p = 0.06$, $eta^2 = 0.02$ and $F(1,487) = 1.81$, $p = 0.15$, $eta^2 = 0.01$, respectively). There was, however, a difference between Western nations with regards to the onset of middle age ($F(1,487) = 2.771$, $p = 0.04$, $eta^2 = 0.02$), the end of middle age ($F(1,4870) = 6.67$, $p < 0.001$, $eta^2 = 0.04$) and the onset of old age ($F(1,487) = 8.12$, $p < 0.001$, $eta^2 = 0.05$). *Post-hoc* Tukey tests indicated that there was a significant difference between Australia and Canada with regards to the onset of middle age, end of middle age, and the onset of old age (see Table 2). There was a difference in estimates of the end of middle age and the onset of old age between Australia and New Zealand. There was a difference in

Table 2 Age estimates as a function of age group and country

	Young		*Middle age*		*Old age*
	Onset	*End*	*Onset*	*End*	*Onset*
Western nations	17.12 (1.60)	28.01 (4.81)	29.60 (4.95)	47.60 (9.44)	50.76 (9.97)
Australia	16.99 (1.47)	27.43 (4.41)	28.75 (4.77)	47.16 (8.35)	47.87 (8.55)
Canada	17.29 (1.74)	28.30 (4.96)	30.21 (5.22)	50.99 (9.05)	52.15(10.00)
New Zealand	16.87 (1.56)	28.34 (4.50)	30.06 (4.18)	51.63 (8.12)	53.11 (8.87)
USA	17.41 (1.64)	28.78 (5.42)	29.76 (5.59)	49.84(12.66)	51.58(12.65)
SE/Asian Nations	16.93 (2.80)	29.27 (6.08)	31.89 (6.44)	50.17 (9.19)	52.31(10.02)
Taiwan	16.97 (3.63)	30.74 (5.48)	32.67 (5.50)	53.13 (7.01)	55.00 (6.53)
PRC	17.77 (1.63)	33.35 (4.92)	34.01 (5.02)	55.15 (6.57)	55.70 (6.73)
Japan	15.38 (3.17)	27.16 (4.64)	34.95 (6.25)	53.03 (5.85)	59.79 (7.63)
South Korea	18.16 (1.94)	32.19 (4.80)	33.60 (3.82)	54.34 (5.39)	55.75 (5.17)
The Philippines	16.48 (2.22)	25.01 (5.63)	26.32 (6.55)	40.02 (9.48)	40.66 (9.38)
Singapore	16.54 (3.15)	30.42 (5.70)	33.29 (5.84)	52.57 (6.34)	54.76 (6.32)
India	18.03 (2.83)	28.59 (6.24)	30.37 (5.19)	47.43 (8.28)	48.63(10.02)
Total	16.82 (2.46)	29.08 (5.66)	31.17 (5.94)	50.66 (9.33)	52.44 (9.97)

estimates of the onset of old age between Australia and the USA In all cases, Australian estimates were lower than their counterparts'.

A second follow-up MANOVA examined variations in age estimates across countries within the south and east Asian bloc. There was a significant multivariate effect (Pillai = 0.79; $F(30,4515) = 28.13$, $p < 0.001$, $eta^2 = 0.16$). All univariate results were significant. As can be seen in Table 2, Japan had significantly lower estimates of the onset of young adulthood than all other south and east Asian nations, and South Korea had significantly higher estimates than all other nations except China and India ($F(1,903) = 19.70$, $p < 0.001$, $eta^2 = 0.12$). Between these two extremes, from lowest to highest, were The Philippines, Singapore, Taiwan, China, and India. India was significantly higher than all other nations except Taiwan and China. China was significantly higher than either The Philippines or Singapore. The Philippines, Singapore, and Taiwan were equivalent to each other. With regard to the end of young adulthood ($F(1,903) = 48.62$, $p < 0.001$, $eta^2 = 0.24$), The Philippines had significantly lower estimates than all other nations, Japan had significantly higher estimates than The Philippines, but lower than the remaining nations except India. India had significantly lower estimates than South Korea. Taiwan, Singapore, and South Korea had similar estimates. The Chinese estimates were higher than all other nations except South Korea.

Concerning the onset of middle age, The Philippines indicated significantly lower estimates than all other nations ($F(1,903) = 48.04$, $p < 0.001$, $eta^2 = 0.24$). India was significantly lower than all other nations except The Philippines. The remaining nations were equivalent, with the exception that Taiwan was significantly lower than Japan. Concerning the end of middle age, The Philippines had lower estimates than all other nations ($F(1,903) = 94.67$, $p < 0.001$, $eta^2 = 0.39$). India was significantly lower than all other nations except The Philippines. The

remaining nations were equivalent, except that Chinese estimates were significantly higher than Singaporean estimates. The onset of old age was held to be younger in the Philippines, and later in Japan, than in all other nations ($F(1,903) = 123.96, p < 0.001, eta^2 = 0.45$). The onset of old age was younger in India than in all other nations except the Philippines. The estimates in other nations were equivalent to each other.

In summary, participants in the East envisioned middle-aged and older individuals who were slightly older than those which participants in the West envisioned. At the same time, differences between the south and east Asian and Western countries, though statistically significant, are quite small; for instance, the largest difference between the two groups is 2.43 years with regards to the onset of middle age. For the purposes of this study, this finding suggests that the two groups are envisioning similar target age-groups. At the same time, it must be recognised that there are some substantial differences between nations within each of these two larger conglomerations. For instance, Australia and The Philippines stand out as having consistently younger estimates of middle and older age within their group. In fact, although Western nations generally estimate age ranges that are younger than south and east Asian nations, the Filipino participants made lower age estimates than both other Asian nations and Western nations (although this latter comparison was not examined statistically). These findings suggest that the broad division between 'East' and 'West' may mask variations within the category.

Vitality in south/east Asian and Western nations

To examine differences in vitality perceptions across the three age groups as a function of south and east Asian countries (i.e. Japan, China, Taiwan, The Philippines, South Korea, Singapore, and India) relative to Western countries (i.e., Canada, Australia, New Zealand, and USA), a 2 x 2 x 3 ANOVA was conducted with the cultural bloc (south and east Asian vs. West), the sex of the participant (male vs. female) as between-subjects factors and the target age-group (young vs. middle-aged vs. old) as a within-subjects factor. The 3-way interaction was not statistically significant ($F(2,2724) = 0.68, p = 0.51, eta^2 < 0.001$), nor was the cultural bloc main effect ($F(1,1362) = 0.67, p = 0.41, eta^2 < 0.001$) nor the sex by cultural bloc interaction effect ($F(1,1362) = 0.41$, $p = 0.52$, $eta^2 < 0.001$). There were, however, statistically significant main effects for sex ($F(1,1362) = 9.97, p = 0002, eta^2 = 0.01$) and target age-group ($F(2,2724) = 1368.95$, $p < 0.001$, $eta^2 = 0.50$). In general, females rated other people higher ($M = 4.55, SD = 0.68$) than males did ($M = 4.47$, $SD = 0.71$), and middle-aged adults were perceived as having greater vitality than older adults ($M = 5.12, SD = 0.59$, and $M = 4.48$, SD = 0.76, respectively), who were perceived as having greater vitality than young adults ($M = 3.94, SD = 0.74$). These main effects were qualified by two significant interaction effects. The *target age-group* and *sex* effect ($F(2,2724) = 20.34$, $p < 0.001$, $eta^2 = 0.015$) indicated that although males and females had similar perceptions of the vitality of the middle-aged (Males: $M = 5.05$, $SD = 0.60$; Females: $M = 5.19$, $SD = 0.58$) as being greater than that of older people (Males: $M = 4.52$, $SD = 0.76$; Females: $M = 4.44$, $SD = 0.76$), and young people as having the least vitality of the three groups (Males: $M = 3.84, SD = 0.76$; Females: $M = 4.02, SD = 0.72$), males perceived young people as having less vitality than females did.

The significant *target age-group* and *cultural block* interaction effect ($F(2,2724) = 80.44$, $p < 0.001$, $eta^2 = 0.06$; see Table 3) indicated that people in south and east Asian and Western countries perceived younger people as having lower vitality than older people who, in turn, were perceived as having less vitality than middle-aged people. People from south and east Asian countries perceived young people as having more vitality than people from Western countries did. People from south and east Asian countries also perceived middle-aged and older people as having less vitality than people from Western countries did (see Figure 1).

Table 3 Perceptions of young, middle-aged, and older adults' vitality as a function of country of origin

Country	*Young M (SD)*	*Middle-aged M (SD)*	*Older M (SD)*
Western nations	3.73 (0.71)	5.23 (0.53)	4.62 (0.68)
Australia	3.89 (0.59)	5.09 (0.46)	4.70 (0.58)
Canada	3.42 (0.72)	5.17 (0.58)	4.69 (0.73)
New Zealand	3.76 (0.79)	5.41 (0.44)	4.40 (0.61)
USA	3.65 (0.74)	5.14 (0.66)	4.90 (0.67)
South/East Asian nations	4.05 (0.74)	5.07 (0.61)	4.39 (0.80)
Taiwan	4.11 (.62)	5.23 (.57)	4.51 (.66)
China	4.39 (0.69)	5.26 (0.61)	4.41 (0.66)
Japan	3.49 (0.60)	4.57 (0.60)	4.17 (0.64)
South Korea	3.90 (0.66)	5.04 (0.49)	3.69 (0.70)
The Philippines	4.23 (0.78)	5.24 (0.58)	5.01 (0.72)
Singapore	4.30 (0.60)	5.08 (0.47)	4.26 (0.63)
India	4.06 (0.67)	5.19 (0.54)	4.53 (0.70)

This analysis was followed up by two ANOVAs designed to examine variability within Western and Eastern countries (see Figure 2). Because the above analysis did not indicate substantial differences in the patterns of evaluations of the age groups across sex, sex was not included as a factor in these follow-up analyses. A 4 x 3 ANOVA examined differences in perceived vitality across the four Western nations (*country*: Australia, Canada, New Zealand, and the USA) and across the three age groups (*target age-group*: young, middle-aged, older). The main effect for *country* was not significant ($F(3,488) = 1.27$, $p = .28$, $eta^2 = 0.01$), but the main effect for *target age-group* was ($F(2,976) = 730.25$, $p < 0.001$, $eta^2 = 0.60$). As noted above (see Table 3), young people were perceived as having the lowest level of vitality followed by older adults followed by middle-aged adults. The *country* by *target age-group* interaction was also significant ($F(6,976) = 13.10$, $p < 0.001$, $eta^2 = 0.08$; see Table 3). *Post hoc* Tukey tests showed that all groups were similar in their perceptions of young adult vitality, although Australians perceived higher vitality than did Canadians. Australians perceived middle-aged people to have lower vitality than Canadians and New Zealanders, and Americans perceived middle-aged people to have less vitality than New Zealanders. In addition, Australians and Americans perceived older adults to

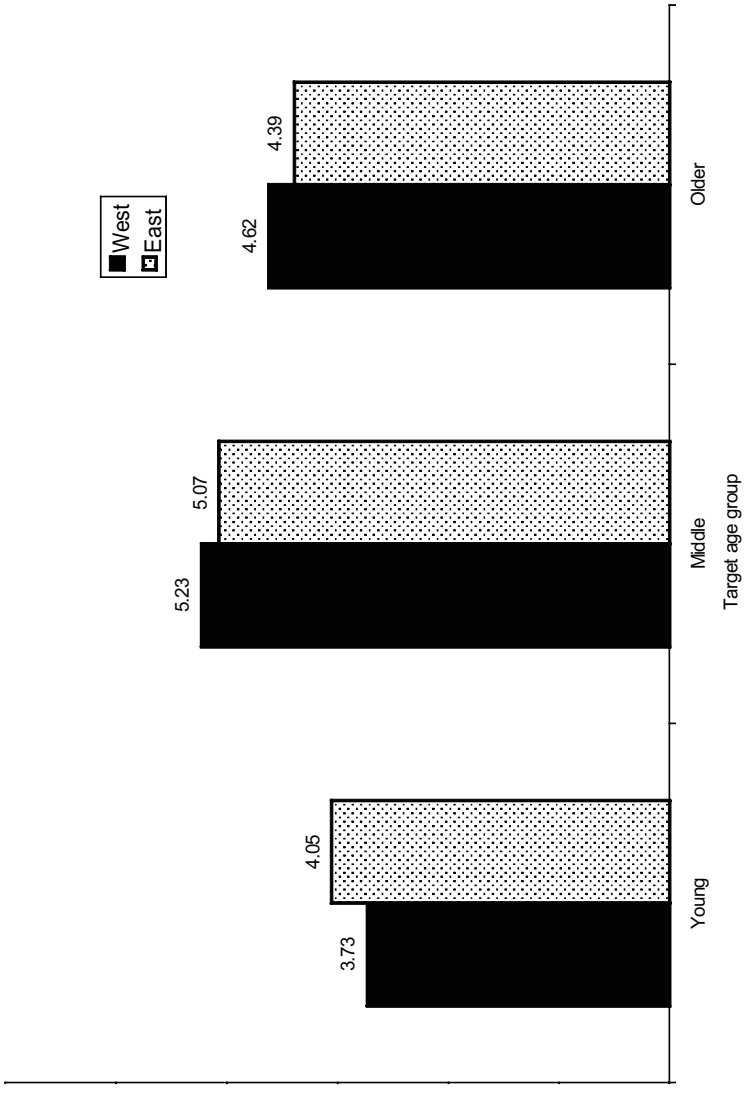

Figure 1 Three target ages as rated by south/east Asians and Westerners

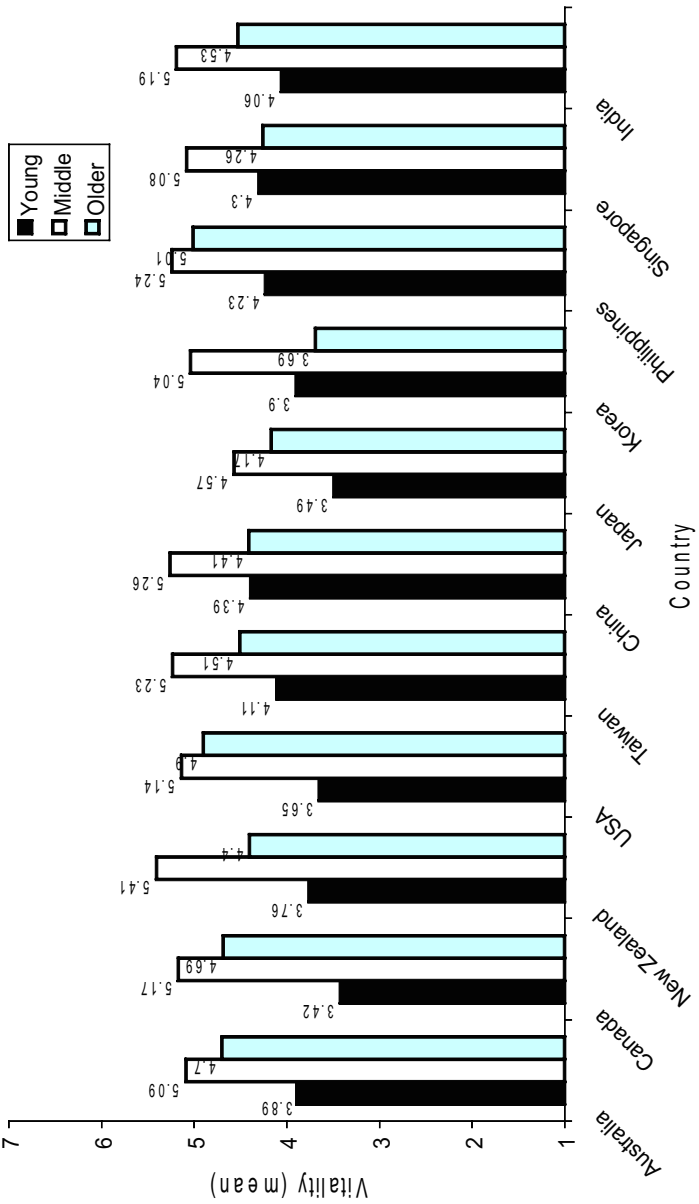

Figure 2 Vitality as a function of country and target group

have more vitality than Canadians and New Zealanders. Whereas the USA respondents made relatively little differentiation between the vitality of middle- and old-aged people, all other groups perceived old-aged vitality to lie midway between young vitality (which was relatively low) and middle-aged vitality (which was relatively high).

A 7 x 3 ANOVA examined differences in the perceived vitality of the three age-groups (*target age-group*: young, middle-aged, older) across the seven south and east Asian countries (*country*: Taiwan, Japan, South Korea, China, The Philippines, Singapore, and India). The *target age-group* main effect was significant ($F(2,1818) = 738.07, p < 0.001, eta^2 = 0.45$), as was the *country* main effect ($F(6,909) = 55.74, p < 0.001, eta^2 = 0.27$). Overall, middle-aged individuals were perceived as having higher vitality than both younger and older adults and the younger people as having lower vitality than older people (see Table 3). In general, people in The Philippines, China, and Taiwan rated the combined target groups highest ($M = 4.83$, $SD = 0.69$; $M = 4.72$, $SD = 0.65$; and $M = 4.64$, $SD = 0.62$, respectively). They were followed by India, Singapore, and South Korea ($M = 4.59$, $SD = 0.64$; $M = 4.55$, $SD = .57$; and $M = 4.21$, $SD = 0.62$, respectively). The lowest ratings came from Japan ($M = 4.08$, $SD = 0.61$).

The interaction effect was also significant ($F(12,1818) = 23.40, p < 0.001, eta^2 = 0.13$; see Table 3). *Post hoc* Tukey tests indicated that, with regards to young vitality, Japan had lower scores than all other nations; South Korea had lower scores than all other nations except Japan; and Taiwan, The Philippines, Singapore, India, and China had equivalently high perceptions of vitality, although China was significantly greater than Taiwan. With regards to middle-age vitality, Japanese respondents again had lower scores than all other countries; South Korean, Singaporean, Indian, and Filipino respondents had similar scores; Singaporean, Filipino, Indian, and Taiwanese respondents had similar scores; and people from The Philippines, Taiwan, India, and China had similarly high scores. Concerning old-age vitality, South Korea was lower than any other nation, followed by Japan and Singapore. India had scores similar to all nations except South Korea and Japan. Singapore had scores similar to China; China, in turn, was similar to Taiwan; and The Philippines had higher scores than any other nation except India. All groups indicated that the middle-aged group had the greatest vitality. Indian, Filipino, Japanese, and Taiwanese respondents indicated that young adults had lower vitality than older adults who, in turn, had lower vitality than middle-aged adults. Chinese and Singaporean respondents indicated that young people had vitality similar to older adults. South Korean respondents felt that older adults had the lowest vitality, followed by the young adults, and then the middle-aged adults.

In summary, there is considerable consistency in Western nations, such that the participants indicated that young people have the least vitality, older people have moderately higher vitality, and middle-aged people have the greatest vitality. Thus, people in their mid-thirties and onward are perceived to be well represented in the mass media, economics, politics, and education; they are perceived to be wealthy, socially active, and of high status relative to younger adults. Although there is a perceived drop in vitality in later years (except in the USA), older adults do not seem to be viewed as returning to the low vitality experienced by younger adults.

The south and east Asian nations, particularly in India, The Philippines, Japan, and Taiwan, generally show a similar pattern to that described for the Western nations, such that middle-aged adults have greatest vitality, older adults have somewhat less vitality and younger adults have the least vitality. At the same time, the distinction between the younger and older groups is lessened. Indeed, in China and Singapore, older adults are perceived to be at the same level of vitality as younger adults; in South Korea, they are perceived to have less vitality than younger adults. Thus, it might be argued that the perceived vitality of older adults in south and east Asian countries is not necessarily lower than the other two groups (except in South Korea), but low in the sense that it more closely approximates to young adults' vitality.

Discussion

Before discussing our vitality findings, it is worth commenting upon the respondents' assessments of the age categories. Although serendipitous to our main concerns, some interesting and unique outcomes have been uncovered. Indeed, while there is a growing literature on how informants construe their own feelings of how old they are (Montepare, 1996; Montepare & Zebrowitz, 1998), little data exists on what people define as different age bands. We found that, in the minds of young people, the onset of middle age and elderliness is around 31 and 52 years respectively – a telling figure for some observers, particularly given consistency with the Harwood *et al.* (1994), and to a large extent, the Harwood and Giles (1993), data. However, that respondents from The Philippines and India on the one hand, and Japan on the other, have amongst the lowest and highest attributions for the onset of old age is explicable in that they represent the lowest and the highest life expectancies of the national samples studied (59/60 years for Indian males/females and 63/69 years for Filipino males/females compared with 77/83 years for Japanese males/females; *Global Aging into the 21st Century*, 1996). That said, the comparable figure of the onset of Australian old age is, perhaps, a surprising 48 years of age and, as such, is intriguing and worthy of further study. Indeed, garnering more subjective information on this issue from differing age groups themselves – as well as the underlying reasons for it – would seem to be compelling. In addition, that there can be substantive lags between the end of one period and the onset of another in some cultures (see, for example, Japan, Table 2) could have interesting experiential ramifications for those enduring such 'age chasms'. Finally here, cross-cultural differences in the perceived onset of young adulthood could also have important implications for the manners in which youths psychologically invest in their adolescent years and identities in various countries (see Williams & Nussbaum (in press) for a discussion of middle-aged/youth conflicts, their construction, consequences, etc.).

Moving now to the main findings, we have definitive support for Harwood *et al.*'s (1994) findings that middle age is a period of significant (cross-cultural) vitality. In the literature, there is much debate about this life period being one of either crisis or creative challenge. For instance, Levinson (1978: 199) claims, alongside others, that this is period of intense self-appraisal for the middle-aged where '…every aspect of their lives comes into question, and they are *horrified* by much that is revealed' (our italics). Others, such as Hunter and Sundel (1989: 20)

argue that '… for most people [it] is like to be a relatively calm transition', whereas yet others, such as Labouvie-Vief and Hakim-Larson (1989), point to progressively positive shifts in flexibility and cognitive functioning. Our data then contribute to the latter position in that young people construe middle-aged people as holding considerable institutional power. Yet, this is a two-edged sword as the endorsement of this perception among young people was found, by Harwood and Giles (1993), to be predictive of some perceived communication difficulties between young adults and middle-aged persons.

The findings here also support Harwood *et al.* (1994) to the extent that Western students, as a cultural bloc, perceive older people as having more vitality than their Eastern counterparts, whereas the latter accord more vitality to younger people (and, hence, a greater ingroup bias) than do the former. This again provides further evidence to the increasing amount of data, across different domains of intergenerational relationships, that the social climate for older people is less favourable in many Eastern than in Western settings. We readily acknowledge, of course, that the urban centres of dominant ethnic populations which 'represent' the particular nations herein (see Table 1) cannot be considered prototypes for an entire country and, therefore, theoretically relevant regional, and ethnic minority, differences (see Ng, *et al.*, 1998; Vandello & Cohen, 1999, respectively) are open for fruitful investigation. Naturally, further work of this kind is required (and especially in rural areas with non-student samples and other age groups) where collectivism and power distance (Hofstede, 1980) are believed to characterise other areas of the world (e.g. Central and South America). It is worthwhile noting, again, that while respondent sex had interactive effects with age of target, its effect was quite modest and restricted to the young target; nonetheless, research could well examine the potential for an effect of respondents' sex on targets'-age-sex in future factorial designs (and where sample size was balanced between cultural blocs).

Examining the different national profiles (see Figure 2), we see some interesting variation. The pattern (hereafter, 'A') found for California in Harwood *et al.* (1994); that is, *middle-aged > elderly > young adults*, was also found for Australia, Canada, New Zealand, and the American (Oklahoman) sample. It also emerged in Taiwan, Japan, The Philippines, and India. The prior Hong Kong pattern (now termed 'B'), that is, *middle-aged > young adults > older adults*, was now also found in South Korea. A third pattern, 'C', was found in the PRC and Singapore where there was no difference between young adult and older targets, that is, *middle-aged > young adults = older adults*. What underlies these different profiles, ideally replicated in different regions of the nation with different ethnic groups, is an important question for further research. One speculation, in terms of social consequences, might be that a sudden drop in vitality from middle age to old age for those in the transition stage and beyond (that is 'Pattern B', but especially 'C') could represent a huge loss in perceived social status that could have detrimental sociopsychological costs. Interestingly, data from Korea and Hong Kong with respect to young people's intergenerational beliefs underscore these two cultural contexts as having particularly unsupportive communication climates (Noels *et al.*, in press; Williams *et al.*, 1997; also Giles *et al.*, submitted). Other empirical tasks ahead are to determine if, and where, other vitality patterns emerge – for example, where the elderly or the young are accorded the highest vitality ratings

– and also to include into the evaluative frame other life-span periods, such as adolescence. In this regard, and importantly, Williams and Garrett (1999) have shown that, for some communicative dimensions, young Welsh adults view adolescents less positively than their peers or elders.

In conclusion, our study has shown that relative age vitalities are robust phenomena, consistent to some degree, yet importantly variable across cultures. Hopefully, the individual profiles per nation (as in Figure 2) will be a useful resource to scholars working on age and gender issues in those settings. An exciting quest for future research is also in the theoretical arena. Current theories of the use of language in intergenerational communication (e.g. Hummert, 1994; Ryan *et al*., 1986) are not only Western-biased (Edwards & Giles, 1998), and hence require careful attention to the cultural forces of filial piety and the like, but also need to be revised so as to acknowledge the mediating roles of different perceptions of the social structure such as vitality (see also, Bourhis *et al*., 1997 in the macro-realm of social policies) in their effects on younger-to-older communication. Relatedly, the interrelationships between age stereotyping, filial piety, and age vitality demand further consideration; for instance, societal norms of filial piety can shape the institutional support elderly people are perceived to posses and/or actually receive. Of course, intergroup relations are often in a state of flux and it would seem important to monitor age vitality judgements longitudinally, or cross-sectionally. This invites more elaborated attention on socio-demographic issues as the growing numbers of elderly people (and particularly the more educated and articulate 'Baby Boomers') are provided a public platform (e.g., through such global institutions as the United Nations' (1999) 'International Year of Older People') and (as alluded to at the outset) find their own collective and political voice.

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