

Self-Perception of Aging and Satisfaction With Children's Support

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Abstract

Objectives: Those with self-beliefs in negative aging may desire a stronger support network to buffer against potential threats and may hence see their current network as less than adequate. This study investigated whether negative self-perception of aging is associated with increased dissatisfaction with children's support.

Method: Six hundred and forty Chinese older adults with at least one child and a total of 2,108 adult children rated the degree of support received from each child individually and the degree to which it met their expectation. Additionally, the participants responded to measures of self-perception of aging (both positive and negative), neuroticism, instrumental activities of daily living, chronic illnesses, financial strain, and living status. The multilevel dataset was analyzed using mixed-effects regression.

Results: Individuals who had a more negative self-perception of aging, who were younger, who lived alone, and who had fewer children provided lower support satisfaction ratings after support received from children was controlled for. Positive self-perception of aging was unrelated to support satisfaction. Neuroticism did not account for the relationship between negative self-perception of aging and support satisfaction.

Discussion: A negative self-perception of aging may create vulnerability to intergenerational tension that puts older people at risk of adverse psychological and physical health outcomes.

Key Words: Age stereotypes—Filial piety—Satisfaction with support—Self-perception of aging

Along with race and gender stereotypes, age stereotypes are socialized since young ages and are considered so “primitive” (Nelson, 2005, p. 207) that they are probably activated automatically at the subconscious or unconscious level. However, unlike race and gender stereotypes, prejudices formed against older people as a “distant outgroup” eventually become self-relevant as one ages. Because these are stereotypes one has long accepted as truth, they produce powerful expectations of one's own aging trajectory, when one reaches, or is about to reach, the old-age category.

Although positive stereotypes do exist (Kuhlmann, Kornadt, Bayen, Meuser, & Wulff, in press), age stereotypes

are loaded with negative attributes characterized by senility, declines in physical and cognitive functioning, and dependency. These stereotypes are remarkably similar across cultures (Löckenhoff et al., 2009) and are deeply rooted in societies. Thus, compared with positive age stereotypes, negative stereotypes are more accessible (Hess, Auman, Colcombe, & Rahhal, 2003) and resistant to change (Cuddy, Norton, & Fiske, 2005), leading to chronic activation of self-relevant schemas concerning decline. In a line of research coined stereotype embodiment, researchers have investigated the physical and cognitive effects of positive as well as negative age stereotypes that have been

internalized as self-perceptions, using experimental and longitudinal survey methods. It is generally found that internalized negative age stereotypes create expectations of inevitable decline. For instance, when individuals were experimentally primed with negative age stereotypes, they showed elevated cardiovascular reactivity to stress and performed worse on memory, balance, gait, speed of walking, and handwriting. Longitudinally, a negative self-perception of aging has been found to predict hearing decline, functional disability, cardiovascular incidents, and mortality (see reviews by Levy, 2003, 2009). One of the pathways by which negative self-perception of aging leads to accelerated decline is reduced participation in health practices (Levy, 2009).

On the other hand, a positive self-perception of aging appears to have the opposite effects (Levy, 2003, 2009); however, the effects are not as consistent as those of negative self-perceptions, or are smaller. Perhaps due in part to the inconsistent effects of positive age stereotypes, a recent meta-analysis showed that the priming effects of positive age stereotypes, though positive overall, were just about one third of the effects of negative stereotypes (Meisner, 2012).

It is worth noting that some of the outcomes examined in previous studies were not directly primed. For instance, Bargh, Chen, and Burrows (1996) randomly assigned undergraduate students into the “elderly” and the neutral condition. Those in the elderly condition were primed with the following words using a sentence unscrambling task: worried, Florida, old, lonely, grey, selfishly, careful, sentimental, wise, stubborn, courteous, bingo, withdraw, forgetful, retired, wrinkle, rigid, traditional, bitter, obedient, conservative, knits, dependent, ancient, helpless, gullible, cautious, and alone. Participants in the neutral condition were primed with words unrelated to negative age stereotypes. Although walking speed or motor control was not included in the prime words, participants in the elderly condition walked more slowly than those in the neutral condition as a result. Similarly, Levy (2000) found that the quality of the handwriting suffered when older adults were primed with negative age stereotypes that were unrelated to handwriting. The fact that people would adjust such a broad spectrum of behaviors when primed with negative age stereotypes suggests that these stereotypes are part and parcel of a broader and well-learned schema and begs the question of whether the effect is limited to physical and cognitive domains.

One potential ramification of possessing a negative self-perception of aging that has been relatively overlooked in the literature is the increased demand for assistance and support. Dependency and social isolation are salient themes among negative age stereotypes (Palmore, 1990). The dependency stereotype is not just concerned with the loss of abilities due to physical and cognitive decline but also includes images of being unproductive and reliance on others for various tasks, whether or not disability is an issue. Taken together, the age stereotypes of dependency

and social isolation depict older people as weak and needing help and emotional support from others.

Furthermore, it has been well demonstrated that the threat of confirming a negative stereotype is anxiety provoking (Steele, Spencer, & Aronson, 2002). For older adults who are the subject of the negative age stereotypes themselves, a negative self-perception of aging means that they see such threats as being more realistic and imminent. Within the broader literature on coping, it is well known that people tend to seek out supportive others when facing anxiety-provoking situations (Baumeister & Leary, 1995).

All things considered, a negative self-perception of aging may arouse a higher expectation for social support to buffer against potential threats and to alleviate anxiety. Supporting this idea, Coudin and Alexopoulos (2010) conducted two experiments wherein older adults read or listened to texts depicting older people portrayed negatively, positively, or neutrally (or not receiving any stimulus). Compared with those in the positive and the neutral condition, those in the negative condition reported higher loneliness (Experiment One) and asked for more help when attempting to solve a puzzle (Experiment Two), whereas no differences were observed between the positive and the neutral conditions. These findings suggest a heightened demand for social support after exposure to negative age stereotypes.

It may be further argued that those who expect more support are inclined to find their support systems to be less than desirable. When support seeking is done in a way that is out of proportion to the objective need, one may not obtain the expected responses from network members as there is no ostensible validity to the demand. The outcome is likely one of disappointment and, consequentially, dissatisfaction with social networks. For instance, in a study of family caregivers in the United States, familism (e.g., expecting support from family members in times of need), which was slightly higher among African Americans and among Whites, was inversely related to perceived support from the main helper (Shurgot & Knight, 2005). It is conceivable that this phenomenon may be more pronounced in East Asian cultures where loyalty to the family and belief in family members’ obligation to help are even stronger. Yet, the relationship between negative self-perception of aging and social support satisfaction has never been examined in the literature.

As an initial study of this phenomenon, I focused on satisfaction with the support received from adult children. Children are generally stable and close members of the social convoy throughout the life course (Antonucci, Akiyama, & Takahashi, 2004), who serve as support providers whether or not the individual is undergoing a stressful experience such as illness or a role transition (Birditt, Antonucci, & Tighe, 2012). Moreover, within the Confucian model of the family, there are strong normative expectations of children’s support for older parents that reinforce their position in the social convoy. Despite changes in norms and family structure in Chinese/Asian societies, children are still

the preferred support provider, and some fundamental filial norms and expectations are retained (see Cheng, Chi, Fung, Li, & Woo, 2015 for reviews). Many Asian countries have laws to regulate children's support for older parents (Cheng et al., 2015), whether one believes in the merits of these legislative measures or not. Such strong expectations provide an excellent context for studying satisfaction with children's support (i.e., whether children's supportive behaviors are aligned with one's expectations) and whether it is related to negative self-perception of aging.

However, I did not hypothesize a relationship between positive self-perception of aging and support satisfaction, partly because of the inconsistent effects of positive self-perception of aging as reviewed earlier and partly because of the nature of filial piety in Confucian societies. Children are expected to display basic supportive behaviors, even if parents are well financially, physically, and so on, under Confucian values. Taking this observation further, I reason that positive self-perception of aging would be unrelated to satisfaction with children's support, as it would not reduce expectation for children's support in this cultural context.

A point worthy of noting is that most studies in the literature had asked participants to rate the support from children in general. A disadvantage of this approach is that it is not clear how feelings towards different children (when multiple children exist) are summed up, especially when children are plenty which is not uncommon in the current older cohort in many societies. Moreover, when not specified, participants may focus on their favored child, owing to social desirability or other reasons, thus limiting the results to relatively satisfactory relationships. To avoid these issues, participants in the current study provided individualistic ratings of the support received from each and every child, as well as the degree of satisfaction with it. This approach ensured a comprehensive sampling of the relationships with children, whether the children were supportive or not. The level of satisfaction with each child was then modeled using multilevel methods.

Finally, when studying the relationship between self-perception of aging and social support satisfaction, it is important to clarify the role of neuroticism. Neuroticism is a fundamental personality dimension that predisposes a person to see things negatively and to experience negative affect (Costa & McCrae, 1985). Not only is neuroticism found to be associated with negative self-perception of aging (Jang et al., 2004; Moor, Zimprich, Schmitt, & Kliegel, 2006) but it is also inversely related to the perceived availability of social support (Lewis, Bates, Posthuma, & Polderman, 2014). If the hypothesized relationship between negative self-perception of aging and satisfaction with children's support is simply driven by a common personality trait, then the interpretations outlined earlier cannot be accepted.

The Present Study

In a cross-sectional study on Chinese older adults, I tested whether negative self-perception of aging was associated

with lower satisfaction with children's support and whether this relationship could be accounted for by neuroticism. I expected negative, but not positive, self-perception of aging to be associated with a lower social support satisfaction, independent of the level of support received from each child and the degree of neuroticism of the individual.

Method

Data were taken from a study of the social networks of community-dwelling Chinese older persons in Hong Kong, which oversampled individuals without the immediate family (Cheng, Chan, Li, & Leung, 2014; Cheng, Lee, Chan, Leung, & Lee, 2009; Cheng, Li, Leung, & Chan, 2011). Participants were recruited from social service agencies on a voluntary basis from February 2006 to December 2007, who provided informed consent to participate in a study on social networks and health. Of the 1,005 older adults in the original sample, 642 individuals with at least one child in their networks had a total of 2,120 children. To avoid ambiguities in data interpretation in relation to filial support, two adopted children and ten biological children not reaching adulthood (i.e., younger than 18 years) were excluded from the study. (In the Chinese context, an adult son may be adopted because of the cultural belief that certain postdeath rituals are to be carried out by a son. In this case, the son was not adopted as a child and was not brought up by the older person. Depending on the particular contract between the older person and the adoptee, the expectation of filial duties is therefore rather different from that for a biological child or an adopted child who was brought up by the participant. Because the nature of the adopted relationship cannot be determined unambiguously on the basis of the information available, I opted to exclude the adopted children from the analysis altogether.)

The final sample consisted of 640 older persons with a total of 2,108 children ($M = 3.31$, $SD = 1.69$, range = 1–10). The older adults had a mean age of 71.4 years ($SD = 6.86$, range = 60–97), and 56% of them were women. Thirty-eight percent were married, 36% were widowed, and 26% were divorced/separated. In terms of educational attainment, 33% had no formal education, 40% had some primary school, 22% had secondary-level education, and 5% had tertiary-level education. Thirty-five percent lived alone. As for the children, their mean age was 41.2 years ($SD = 8.49$, range = 18–74 years).

Measures

Self-Perception of Aging

These were measured using an adapted version of the Image of Aging Scale (Levy, Kasl, & Gill, 2004). The original scale measures one's "image or picture of old people in general" with 18 items, half measuring positive stereotypes and half negative stereotypes in nine thematic categories. These categories (with positive and negative items, respectively, in

parentheses) were activity (active, walks slowly), appearance (well-groomed, wrinkled), cognition (wise, senile), death (full of life, dying), dependence (capable, helpless), personality (positive outlook, grumpy), physical health (healthy, sick), relationships (family-oriented, lonely), and will to live (given up, will to live). In an attempt to adapt the scale for measuring self-perception of aging following a back translation of the adjectives into Chinese, the instruction was modified so that the items were rated according to the degree to which they were characteristic of self, from 0 = *completely unlike me* to 6 = *completely like me* (Cheng, Yip, Jim, & Hui, 2012; Fung et al., in press). In the present sample, the alpha coefficients were .77 and .72, respectively, for the positive and the negative subscale.

Social Support from Children

The Chinese version of the social convoy questionnaire (Cheng, Lee, Chan, Leung, & Lee, 2009; Kahn & Antonucci, 1980) was used to solicit social network information. Participants were asked to name network members and place them in three concentric circles drawn around a center labeled "me." The inner circle consisted of persons so important that it was difficult to imagine life without them. The middle circle were persons very important but not as close into the middle circle. Finally, others who were close and important but had not yet been mentioned were placed into the outer circle. Eighty-seven percent of the children were placed in the inner circle.

Against each network member (hence each child), participants rated the extent of emotional (four items tapping confiding, showing affection, paying respect, and showing appreciation; $\alpha = .77$) and instrumental (another four items tapping sick care, assistance with daily activities, advice and guidance, and financial aid; $\alpha = .71$) support received on a scale of 1 = *never* to 5 = *always*. Contact frequency was rated on a scale of 1 = *occasional*, 2 = *once a month*, 3 = *several times a month*, 4 = *once a week*, 5 = *several times a week*, and 6 = *daily*.

Satisfaction with Children's Support

This construct was measured with three items, each tapping satisfaction with a child's support in one of three domains, namely, daily maintenance, respect, and sick care. In a previous study, 75% of the variance in a range of filial behaviors could be accounted for by these three factors (Cheng & Chan, 2006), suggesting that they represent the concept of filial piety very well. Following Cheng and Chan (2006), the items were rated on a scale of 1 = *exceeds my expectation*, 2 = *fully meets my expectation*, 3 = *slightly below my expectation*, 4 = *somewhat below my expectation*, and 5 = *very much below my expectation*. The scores were reversed so that a higher score meant higher satisfaction. This measure was limited to three items in order to avoid overburdening the participants who had a relatively large number of children as they were already answering a fair

amount of questions for each network member. Despite the brevity of the measure, the internal consistency was excellent ($\alpha = .93$).

Neuroticism

This personality trait was measured by the Chinese version of the International Personality Item Pool Big-Five Factor Markers (Goldberg, 1992). The longer version has 20 items for each of the big-five personality factors, whereas the shorter version has 10 items each. I used the 10-item version for measuring neuroticism, which had an alpha coefficient of .87 in the present sample.

Other Measures

In addition, participants provided information on age, sex, marital status, education, whether living alone, and diagnosis of 20 chronic illnesses. They also responded to the Lawton and Brody (1969) scale for instrumental activities of daily living (IADL). Self-rated health was measured with one item asking participants to rate their overall health on a 5-point scale of 1 = *excellent* to 5 = *very poor*, which was reversed prior to analysis. Financial strain was measured using three items, namely, "Do you have difficulty paying bills?", "Do you have money left at the end of the month?", and "Do you have enough pocket money to spend?" (Cheng & Chan, 2006; Cheng et al., 2014). Those who reported difficulty to any of the items were scored 1, whereas the others were scored 0 (no financial strain).

Data Analysis

Given the multilevel structure, data were analyzed with mixed-effects regression using full information maximum likelihood estimation in Stata version 11.1 (StataCorp, College Station, TX). Satisfaction with children's support was predicted by the child's gender (0 = *male*, 1 = *female*), residence (0 = *in Hong Kong*, 1 = *abroad*), support behaviors, and contact frequency at Level 1, and the parents' age, gender (0 = *male*, 1 = *female*), education level, number of children, living status (0 = *with others*, 1 = *alone*), number of chronic illnesses, impairment in IADL (0 = *no*,

1 = *any impairment*), self-rated health, financial strain (0 = *no strain*, 1 = *some strain*), and self-perceptions of aging at Level 2. The intercepts were specified to vary randomly at the parent level, whereas the regression coefficients of the predictors were specified as fixed effects. Because positive and negative self-perceptions of aging were strongly inversely correlated (Table 1), they were analyzed separately in two regression equations (Model 1 and Model 2, respectively, in Table 2) to avoid collinearity issues. I report unstandardized regression coefficients along with 95% confidence intervals. Alpha was set at

.05, two-tailed. Pseudo R^2 (Rabe-Hesketh & Skrondal, 2008) were calculated to estimate the variance explained by the set of predictors.

Table 1. Descriptive Statistics and Intercorrelations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Level 2 (parent variables)																			
1. Age	—																		
2. Gender (female)	-.17	—																	
3. Education	-.14	-.33	—																
4. Number of children	.19	.11	-.32	—															
5. Living alone	.16	—	.07	-.14	—														
6. Chronic illness	-.06	.15	-.11	.03	.04	—													
7. Having IADL impairment	.11	—	-.11	.06	—	.10	—												
8. Self-rated health	.06	-.05	.02	.04	-.09	-.28	-.15	—											
9. Having financial strain	-.06	—	-.02	-.10	—	.03	—	-.20	—										
10. Neuroticism	-.15	.11	-.05	-.07	.03	.17	.04	-.36	.15	—									
11. Positive self-perception of aging	-.05	-.00	.04	.01	-.06	-.21	-.09	.46	-.13	-.28	—								
12. Negative self-perception of aging	.10	.07	-.14	-.01	.14	.24	.18	-.47	.23	.58	-.60	—							
Level 1 (child variables and parental ratings of child)																			
13. Child age	.61	.17	-.19	.18	.12	.05	.04	.03	-.07	-.03	-.07	.09	—						
14. Child gender (female)	-.01	—	.02	.05	—	-.03	—	.03	—	-.00	-.01	-.02	-.04	—					
15. Child residence (abroad)	-.04	—	.07	.05	—	.02	—	-.05	—	.02	-.09	.05	-.26	-.01	—				
16. Child contact frequency	-.15	-.04	-.07	-.08	-.31	-.04	.01	.09	-.17	-.09	.13	-.16	.11	.02	-.45	—			
17. Child emotional support	-.06	.02	.07	.02	-.08	-.03	.01	.14	-.14	-.19	.30	-.23	-.05	.14	-.07	.31	—		
18. Child instrumental support	-.00	.05	-.03	.01	-.10	.01	.09	.12	-.18	-.16	.23	-.15	-.05	.10	-.28	.51	.67	—	
19. Satisfaction with child's support	.06	-.01	.01	.12	-.12	-.02	.03	.12	-.14	-.25	.16	-.24	.03	.07	-.03	.18	.50	.40	—
<i>M</i> / %													41.21	49	18	3.06	12.26	9.52	11.15
<i>SD</i>													8.43			1.93	3.26	3.51	2.23

Notes. IADL = Instrumental activities of daily living.

Correlations were computed at the child level (i.e., $N = 2,108$); coefficients $\geq .04$ were significant at the .05 level, two-tailed. Correlations between two categorical variables were not computed. Descriptive statistics for parent (Level 2) variables are provided separately in text.

Results

On the average, the participants had 2.49 chronic conditions ($SD = 1.58$, range = 0–8) and fair self-rated health ($M = 3.06$, $SD = 0.90$). As a relatively healthy sample, only 5% reported any difficulty with IADL and so they were grouped together for analysis. Twenty-four percent reported some financial strain. The participants saw themselves as more similar to the positive age stereotypes ($M = 32.62$, $SD = 8.90$) than the negative age stereotypes ($M = 18.42$, $SD = 9.12$), $t(641) = 22.65$, $p < .001$. Intercorrelations of the major variables and more descriptive statistics are displayed in Table 1.

For the main analysis, results of the mixed-effects regression are displayed in Table 2. Whichever aging self-perception variable was included in the equation, support satisfaction was associated with more emotional and instrumental support provided by the child. Children with local residences, as compared with those abroad, were associated with lower satisfaction ratings by the parent. In terms of parent characteristics, those who were younger and who lived alone felt, given the same level of child support, that the support was farther away from their expectations. Having more children was associated with higher support satisfaction overall. However, those having more negative self-perception of age felt less satisfied with the support provided by their children, above and

beyond the effects of the other factors, whereas positive self-perception of aging, as predicted, was not associated with support satisfaction. Importantly, although neuroticism was strongly correlated with negative self-perception of aging and moderately with support dissatisfaction (Table 1), it was not a significant predictor of the latter in the regression model (though it was a significant predictor alongside positive self-perception of aging in the other model), suggesting that the relationship between negative self-perception of aging and support satisfaction was not merely due to common covariances with neuroticism. The pseudo R^2 without self-perceptions of aging was 30.68%; it was increased to 31.64% when negative self-perception of aging was included.

As a sensitivity analysis, I re-ran the analysis while including the adopted children and/or biological children younger than 18 years. The results were the same.

Discussion

This study addressed a gap in the literature; that is, whether self-perception of aging is related to feelings about one's social network, with a focus on children's support and satisfaction with it. It was hypothesized that a negative self-perception of aging would arouse a fundamental schema

Table 2. Mixed-Effects Regression of Satisfaction with Children's Support on Child and Parent Variables

	Model 1		Model 2	
	<i>B</i>	95% CI	<i>B</i>	95% CI
Intercept	5.883	3.854, 7.911	5.444	3.512, 7.376
Random effect (intercept) variance	2.285	1.985, 2.630	2.268	1.970, 2.611
Level 1 (child variables)				
Age	0.003	−0.008, 0.015	0.004	−0.008, 0.015
Gender (female)	0.042	−0.080, 0.165	0.046	−0.077, 0.169
Residence (abroad)	0.303**	0.093, 0.514	0.310**	0.099, 0.520
Contact frequency	−0.012	−0.059, 0.035	−0.012	−0.059, 0.035
Emotional support	0.288***	0.254, 0.322	0.284***	0.250, 0.317
Instrumental support	0.085***	0.051, 0.118	0.085***	0.052, 0.119
Level 2 (parent variables)				
Age	0.019	−0.004, 0.042	0.026*	0.003, 0.050
Gender (female)	0.047	−0.248, 0.343	0.045	−0.249, 0.340
Education	0.075	−0.099, 0.249	0.047	−0.128, 0.221
Number of children	0.101*	0.016, 0.186	0.096*	0.011, 0.181
Living alone	−0.384*	−0.684, −0.084	−0.352*	−0.652, −0.052
Chronic illnesses	0.015	−0.073, 0.104	0.031	−0.057, 0.120
Having IADL impairment	0.206	−0.410, 0.823	0.313	−0.306, 0.933
Self-rated health	0.014	−0.165, 0.192	−0.092	−0.267, 0.083
Having financial strain	−0.121	−0.451, 0.208	−0.061	−0.393, 0.270
Neuroticism	−0.034***	−0.053, −0.015	−0.019	−0.040, 0.003
Positive self-perception of aging	−0.012	−0.030, 0.006	—	—
Negative self-perception of aging	—	—	−0.025*	−0.045, −0.004

Notes. Regression coefficients are unstandardized.

— = not entered; IADL = instrumental activities of daily living.

* $p < .05$. ** $p < .01$. *** $p < .001$. Two-tailed.

about children's supportive role and responsibilities that is partly grounded in cultural beliefs in filial piety, so that children's supportive behaviors would be seen as less than adequate due to elevated concerns with functioning declines and social isolation. On the basis of 2,108 children rated by 640 older adults, certain child and parent characteristics were found to be associated with satisfaction with support from the child. One of the strengths of the present study was examining older adults' evaluation of support from children one by one using multilevel models and taking this information into account in estimating the effect of individual differences in self-perception of aging, thus avoiding unwarranted generalizations on the basis of one parent-child dyad only. Consistent with Cheng and Chan (2006), more support behaviors from the child were associated with higher support satisfaction. Emotional support was more determining of satisfaction ratings than instrumental support, suggesting a preference for intangible over tangible support in contemporary societies (Cheng & Chan, 2006; Cheng et al., 2015). Also associated with support satisfaction at the child level was whether the child lived abroad; those residing in the city of Hong Kong were given less favorable ratings, suggesting higher expectations of support from children in close geographical proximity.

Probably because of a relatively healthy community sample, measures of health status such as impairments in IADL had limited variance and, as a result, were unrelated to satisfaction ratings. Financial strain also was unrelated to support satisfaction. Neuroticism was a factor in support satisfaction, as can be seen from the model that included positive self-perception of aging, but its effect appeared to be entirely accounted for by negative self-perception of aging. Four variables at the parent level were independently associated with support satisfaction ratings, namely, the participant's age, number of children, living arrangement, and negative self-perception of aging.

An unexpected finding of the present study was that it was not older age, but younger age that was associated with lower satisfaction ratings. It is noteworthy, however, that a similar finding was found in an adult life-span sample; as people get older, they tend to perceive less discrepancy between what they want (desired) and what they get (actual) from relationship with others (Cheng, 2004). In the domain of intergenerational relationships, such increasing feelings of contentment may be crucial to maintaining harmonious relationships with children to ensure continuous provision of support from them.

Number of children was positively associated with satisfaction with children's support. This meant that those with more children had a higher mean satisfaction across children than those with fewer children. Having more children may offer more protection to older people by each making different and likely complimentary contributions. Although traditionally having more children is valued, newer generations (those becoming old or in young-old ages) have adopted preference for smaller families, and it is not clear

whether such a finding will continue to be true. It should also be noted that children are not necessarily filial and supportive and hence any relationship with support satisfaction will unlikely be a strong one.

Moreover, living alone was associated with lower satisfaction ratings. To make sense of this finding, I examined the relationship between living arrangement and marital status and found that 53% of those unmarried versus 7% of those married were living alone. Thus, spouseless individuals who had children but not living with them (especially children who resided locally) were more likely to feel that their children had underprovided support. Our finding echoes another study in China showing that widowhood and disability often precipitates coresidence with children, although expectation for coresidence has declined generally (Korinek, Zimmer, & Gu, 2011). Thus, expectation for coresidence may be heightened when needs arise, resulting in dissatisfaction when coresidence does not occur. Note, however, that contact frequency at the child level, a variable supposed to be highly correlated with coresidence, was not related to support satisfaction (see also Cheng & Chan, 2006). How do we reconcile such findings? It should be noted that coresidence is unlikely an expectation held for every individual child; hence contact frequency across children might not be related to support satisfaction, even though the status of living alone was.

Finally, as expected, negative self-perception of aging was associated with lower satisfaction with children's support. This result was obtained after support received from children was taken into account, meaning that there was a tendency for older persons to report a lower support satisfaction when they had a more negative self-perception of aging, even though the level of received support was reported to be the same. On the contrary, positive self-perception of aging was unrelated to support satisfaction. Thus, for those with comparable age and health status, believing that one fit the negative age stereotypes in appearance, physical and cognitive functioning, loneliness, and so on, was related to feeling discontent with children's support and filial behaviors. It was negative self-perception of aging but not older age itself or the personality disposition of neuroticism that explained support satisfaction.

According to the findings, given comparable health, financial, and living conditions, older adults with a more negative self-perception of aging tended to believe that their children had not done enough in providing or ensuring support to them. Such a feeling may be related to the self-stereotypes of dependency and isolation, creating expectations of support needs. Although expectations of children's support are not unique to Confucian cultures (see, e.g., Connidis, 2010), they are probably stronger and more universal in Confucian societies, and the availability of children and children's support continues to be an important determinant of psychological well-being in Chinese older persons (Cheng & Chan, 2006; Cheng et al., 2014). A distinctive feature of filial piety under Confucian

ideals is to serve and to devote oneself to parents, regardless of their needs. For instance, in a study of Chinese older adults, excessive support provided by children was found to be associated with higher psychological well-being in the older adults (Cheng & Chan, 2006). This is different from the Western need-based perspective, in which parents' autonomy is to be respected and care is not provided unless need is evident. Thus, for Chinese/Asian older parents who subjectively perceive a need for more support, they may well feel that the demand is justified. Within the context of declining filial values and the falling apart of traditional extended family structures (such as older adults being more likely to live alone; Cheng et al., 2015), a negative self-perception of aging may lead to worry about the adequacy and robustness of the care and protection from children when actual needs arise, hence lower support satisfaction.

Nevertheless, the amount of variance contributed by negative self-perception of aging, beyond the effects of the other variables, was rather small. This should not be surprising given the range of variables controlled for, including neuroticism, emotional and instrumental support received, number of children, and so on. Although the variance contributed by negative self-perception of aging might seem small, one should not lose sight of the significance of increased dissatisfaction with any close relative who forms one's core support system. If children feel that the parent's complaints are unreasonable and turn away, a self-fulfilling prophecy of unsympathetic and unsupportive children may result. Future studies should investigate whether feelings of support dissatisfaction would lead to tension with children (as when demands are made to children who do not agree to them), even to the point of diminishing children's inclination to provide support in the long run.

Somewhat paradoxically, because dissatisfaction with children's filial behaviors is a determinant of psychological distress including depressive symptoms (Cheng & Chan, 2006), older adults who hold such attitudes may be on a faster decline trajectory instead. Moreover, longitudinal studies have found perceived social support to be an independent predictor of mortality (Rosengren, Orth-Gomér, Wedel, & Wilhelmsen, 1993; Wu et al., 2013), as well as a moderator that reduced the effect of depression on mortality (Frasure-Smith et al., 2000). Thus, dissatisfaction with children and hence reduced perceived support may be another pathway, on top of physiological and behavioral ones (Levy, 2003, 2009; Wurm, Warner, Ziegelmann, Wolff, & Schütz, 2013), by which internalized negative age stereotypes lead to decline and adverse health outcomes.

It is worth noting that both age stereotypes and filial values are socialized from childhood; for this reason, they are deeply rooted in people's minds and are difficult to change. One way or another, both sets of belief increase older people's expectation of support from children. In addition, policy developments in certain Asian countries such as China increasingly underscore adult children's responsibilities to older parents and attempts to enforce children's duties

through legal actions (Cheng et al., 2015). How these three processes join forces to create a more complex belief systems about aging, dependencies, and support from children remains to be researched. Regardless, the present findings reinforce the value of policy initiatives to combat ageism and promote positive aging. The findings also highlight the need to consider the attitudes and behaviors of older persons in drawing support from network partners such as children, rather than the current, exclusive policy focus on the needs of older persons and the responsibilities of adult children. Programs aimed at improving older people's communication with family members and their ability to see things from the perspectives of adult children will be beneficial.

In addition, feelings of dissatisfaction by the older person do not mean that adult children are not providing for one's needs. In most cases, such feelings stem from the realization that children are important support providers as well as the desire to have more from them. At the same time, the demand for increased attention and support that is seen as unreasonable by adult children may also contribute to negative feelings towards their parents. As such, the present findings may have implications for the burgeoning literature on intergenerational ambivalence. Intergenerational ambivalence has been conceptualized and operationalized as having conflicting feelings about children (Suitor, Gilligan, & Pillemer, 2011) and is sometimes measured by the simultaneous presence of high levels of positive and negative exchanges with children (Fingerman, Pitzer, Lefkowitz, Birditt, & Mroczek, 2008), such as being supportive, yet not fulfilling certain perceived filial duties. Future research may reveal whether negative self-perception of aging is a contributing factor to intergenerational ambivalence.

Several limitations of the study need to be mentioned before closing. First, the cross-sectional and correlational findings preclude inferences about causality and direction of influence. Longitudinal and experimental studies are needed in the future to ascertain the causal directions between negative self-perception of aging and social support satisfaction. In particular, an experimental design using existing paradigms in priming age stereotypes can demonstrate whether satisfaction with children's support changes as a result of manipulating self-perception of aging. Second, it is not clear whether the findings are specific to cultures with strong filial values and expectations of children's responsibilities to older parents. The generalizability of the present findings to other cultures, especially those which value autonomy as much as possible, need to be examined in future studies. Third, it is conceivable that a negative self-perception of aging may create higher expectations of support not just from children but from all close social partners (e.g., spouse). Hence it is possible that the present study represents a specific case of a more general relationship between negative self-perception of aging and social support satisfaction. It is therefore important to

attempt to replicate these findings against different social partners and in different cultures. Finally, although social support expectation was incorporated into the measure of satisfaction with children's support (i.e., the degree to which the child's provided support met one's expectation), measuring expectation and satisfaction separately will provide a more comprehensive picture of the influence of negative self-perception of aging. For instance, social support expectation may be a dependent measure in itself, while it may serve as a covariate in examining the relationships between negative self-perception of aging on the one hand, and perceived support and support satisfaction on the other. In other words, different aspects of the social support construct, including expectation, perceived level, and satisfaction, should be included in future research and it is possible that negative self-perception of aging exerts differential effects on different aspects of social support.

Despite these limitations, this study suggests that not only are internalized negative age stereotypes linked to physical and cognitive functioning, but it is also related to one's satisfaction with children's support. This finding has important implications for aging societies in which the maintenance of older persons relies increasingly on children's support.

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