Detailed Methodology of priming intervention

The priming intervention is adopted and modified from previous study [5, 29]. The priming intervention was performed using the E-prime 2.0 software [30]. To ensure the primes flashed on screen were beyond awareness, the similar adjustment procedure was taken (see [5, 29]). An individualized stimulus onset asynchrony (SOA) was determined in each trial block in which a total of ten neutral words will be flashed either 1 cm above or 1 cm below the cross-point (centre) in each trial. Participants were required to focus on the cross-point and to respond to the computer by pressing the designated keys as quick and accurate as possible. Patterned masks (rows of at signs:@) were used before and after each flash of word.

To ensure the words are relevant to the Hong Kong elderly population, a list of 60 words (22 words are positive, 22 words are negative and 16 words are neutral) was generated, 16 participants who are aged between 50 and 69 helped rate each of the word according to its relevance to oneself in a 7-point Likert type scale ranging from 1 indicating (‘very positively related to you’) to 7 (‘very negatively related to you’) while the score of 4 referring to (‘irrelevant to you’). The negative words and neutral words rated with highest frequency are used in the present experimental priming intervention.

In the negative age-stereotype priming condition, 40 trials consisted of (i) 12 negative-age-stereotype primes (repeated once); (ii) 2 highly rated negative-age-stereotype primes (i.e. dementia and clumsy) (repeated twice); (iii) 4 selected neutral words (besides, sentence, moreover and even) (repeated once). More specifically, 12 negative age stereotype primes and 4 neutral words would be presented twice and 2 highly rated negative age stereotype primes would be presented in four times which constitute 24 trials and 8 trials respectively out of 40 trials in each block. In the neutral condition, 4 blocks of the 40 neutral words were flashed randomly.

**Appendix A.** Ten items for measuring social participation

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| Levels | Activity domain  | Items | Ratings |
| 3 | Informal social activity | 1) Physical meetings with friends or relatives2) Contacting others through technological products or apps | In terms of frequency:How often do you participate in the following activities?0: Never1: Occasionally (about once/month)2: Quite often (about once/ bi-weekly)3: Often (about once/week)4: Usually (about 2-4times/ week)5: Quite always (more than 4 times/week) |
| 4 | Leisure activity | 3) Physical activities(E.g. Sports)4) Cultural activities(E.g. Watching Chinese opera)5) Recreational activities(E.g. joining a party or dinner with friends)6) Religious activities (E.g. attending church) |
| 5 | Productive activity | 7)Caregiving8)Voluntary work |
| 6 | Formal social activity  | 9) Social organizational activities10) Political or civic activities (E.g. political forum) |