Older adults are more approving of blunt honesty than younger adults: a cross-cultural study

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Abstract

Research has explored age-related and cultural differences in moral evaluations of dishonesty; however, this has not yet been examined in an aging context. The present study provided a novel account of how younger and older adults (in Canada, Singapore, and China; $N = 401$) morally evaluate adults' truths and lies in antisocial, modesty, and politeness settings. Participants completed a questionnaire assessing how acceptable it is for adults to tell the truth or a lie in given social scenarios, and they reported on their levels of collectivism and individualism. In all countries, older adults provided more favorable evaluations to blunt and immodest truths than younger adults did. Compared with younger adults, older adults provided harsher evaluations to *Polite Lies* (in Canada and China) and *Modesty Lies* (in Canada and Singapore). Thus, there may be an age-related increase in the acceptability of direct honesty over good-intentioned lies, and this age effect is somewhat stable across cultures. Older adults were also more lenient in evaluations of an *antisocial lie* to conceal an affair compared to younger adults. Overall, adults in China tended to rate lies less negatively, and their greater levels of collectivism mediated their greater approval of *polite lies*. The present results demonstrate that evaluations of (dis)honesty differ as a function of age and culture and these results can assist in developing a more complete lifespan model of the morality of dishonesty.

Keywords Lies · Older adults · Aging · Deception · Morality · Cross-cultural

Lying to others (i.e., intentionally stating something known to be false) is a common social behavior that is observed around the world (Global Deception Research Team, 2006) and throughout the life course beginning as early as 2 to 3 years of age (Debey et al., 2015; DePaulo et al., 1996; Evans & Lee, 2013; Lee, 2013; Wilson et al., 2003). Yet,

recent research has found that the prevalence of telling lies or deceiving others decreases with age into later life. For example, compared with younger ages, older adults reported telling fewer lies in a 24-hour period (Debey et al., 2015; Serota et al., 2010), they were less likely to act deceptively for self-gain in an experimental task when given the opportunity (O'Connor et al., 2022), and they were less likely to lie about their physical distancing practices during the COVID-19 pandemic compared to younger ages (O'Connor & Evans, 2022). Similarly, older adults, on average, score higher in the honesty-humility personality trait (from the HEXACO personality inventory; Ashton & Lee, 2016), and this has been found cross-sectionally (Ashton & Lee, 2016) and longitudinally (Milojev & Sibley, 2017). Thus, current research suggests that older adults are *more honest* with others compared to younger adults. Given this age-related increase in honest behaviors, it is possible that there is also a shift in how older adults *morally evaluate* how acceptable it is for others to tell lies. Yet, no research to date has assessed older adults' moral evaluations of truths and lies. Answering this question can help us to better understand why older adults are more honest and understanding how

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older adults may appreciate or be harmed by others' (dis) honesty within social interactions can help to reduce social conflict and enhance meaningful communication within and across generations.

Prior research has assessed how individuals morally evaluate truths and lies from childhood through to middle adulthood, generally concluding that lying is rated more negatively than being honest (e.g., Fu et al., 2001, 2011; Lee et al., 1997). Although, individuals tend to consider the motivation behind a lie, such that lies told to benefit others (e.g., lying to be polite) are rated less negatively than lies told for self-serving reasons (e.g., lying to conceal a transgression; e.g., Mealy et al., 2007). Interestingly, studies have also found cross-cultural differences in moral evaluations of lies (e.g., Fu et al., 2001, 2011; Lee et al., 1997; Mealy et al., 2007; Popliger et al., 2011; Xu et al., 2009, 2010), suggesting that these effects can be culturally dependent. However, there are three key limitations to the current moral evaluation literature: (1) this research has neglected to examine an important age group to complete the lifespan perspective: older adults, (2) this research has largely examined evaluations of *children's* deception, with no research exploring developmental and cultural differences in the morality of *adults'* lies,[1] and (3) cross-cultural studies tend to compare an Eastern versus Western country, with no study examining cultural variation within this dichotomy. Thus, in the present study, we examined age and cultural differences in younger and older adults' moral evaluations of *adults'* lies, and we examined this across three countries (China, Singapore, and Canada).

In prior research evaluating the morality of lying, cultural differences have been found across Eastern (e.g., China) and Western (e.g., Canada) countries (e.g., Fu et al., 2001, 2011; Lee et al., 1997). However, there may be more nuanced cultural differences within this dichotomy. For example, both China and Singapore are located in Asia and are guided by Confucian and collective values; however, Singapore has greater social influence from both Eastern and Western norms and values. Indeed, Ang and Stratton (2018) discussed how Singapore is a unique multicultural country that has British influence yet upholds Eastern and collective values. As being influenced by multiple value systems may alter one's moral perceptions (Cameron et al., 2012), we surveyed adults from a predominantly individualistic Western country (Canada), a predominantly collectivist and Eastern country (China), and an Eastern country that holds collective values but also has Western social influences (Singapore).

Building from the extant moral evaluation literature, our novel examination of older adults' moral evaluations

of (dis)honesty across cultures focused on truths and lies within three social settings: antisocial, modesty, and politeness settings. These three lie types have been of particular focus for developmental and cultural researchers (e.g., Fu et al., 2001, 2011; Lee et al., 1997; Popliger et al., 2011; Xu et al., 2009, 2010) as the motivation behind the lie varies from being antisocial (*antisocial lies*) to prosocial in nature (*modesty and polite lies*). Relevant research on each type of lie is described, in turn, below.

Developmental and cultural differences in moral evaluations of lies

Antisocial lies

When lies are told to conceal and/or avoid consequences of one's antisocial behaviors (e.g., committing a transgression; breaking rules) these lies are termed *antisocial lies.* The evaluation of antisocial lies tends to show little variation, across ages and cultures, as individuals recognize the immorality of this act and consistently rate these lies quite negatively (Cheung et al., 2015; Fu et al., 2001; Lee et al., 1997; Mealy et al., 2007; but see Fu et al., 2011 for a small culture difference).

Modesty lies

In contrast to self-serving *antisocial lies,* lies can also be told to benefit others. *Modesty lies* refer to when one lies to conceal or downplay good deeds or accomplishments, and the most robust culture differences in prior studies arise in evaluations of these lies. Given that Eastern cultures tend to value and promote modesty (Bond et al., 1982; Heyman et al., 2013; Oyserman et al., 2002; Triandis, 2001), individuals (children to middle-aged adults) in Eastern countries rate children's modesty lies more positively than those in North America and this effect increases with age throughout childhood (Fu et al., 2001, 2011; Lee et al., 1997; Xu et al., 2010). This increasing approval of modesty lies throughout childhood in Eastern countries is likely attributable to greater socialization to cultural values that promote the importance of modesty (Cameron et al., 2012; Fu et al., 2001; Lee et al., 2001; Xu et al., 2010) and this greater cultural acceptability for modesty lies may persist across the lifespan.

Polite lies

Lying to protect another's feelings is categorized as a *polite (or white) lie*. Within the developmental literature, direct country comparisons have yet to be examined for evaluations of polite lies; however, separate studies have examined Eastern and Western participants' evaluations

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[1] Limited research has explored adults' evaluations of adults' lies cross-culturally (Aune & Walters, 1994; Heyman et al., 2013; Mealy et al., 2007), but these studies did not compare these results developmentally across adulthood.

of polite lies. Findings have been mixed when comparing the morality of telling a polite lie to a blunt truth (i.e., saying the truth even if it is not polite or may hurt someone's feelings), with some reporting that Chinese children and adults favored a polite lie over a blunt truth (Xu et al., 2009), and others reporting that a blunt truth was favored over a polite lie in samples of children in China (Xu et al., 2010) and North America (Bussey, 1999; Popliger et al., 2011). While the blunt truth is often favored over a polite lie, developmental research has found that with increasing age, children judge polite lies less harshly (and blunt truths less positively; Ma et al., 2011; Xu et al., 2010). For example, Xu and colleagues (2010) found that 7-year-olds in China rated a blunt truth positively, however, the 9- and 11-year-olds rated this act near the neutral marker (not good or bad). In the adult cross-cultural literature, Mealy and colleagues (2007) found that Euro-American young adults were more approving of polite lies than Ecuadorian young adults (Mealy et al., 2007); however, age differences in adults' evaluations of polite lies have yet to be examined.

Collectivism and individualism

Given differences in how lies are morally evaluated across Eastern countries that typically hold more collective values and Western countries with more individualistic values, researchers have explored if levels of collectivism and individualism relate to one's moral evaluations of lies. Holding Eastern cultural values of collectivism and social cohesion may promote the use of good-intentioned lying (i.e., lying to be modest or to spare feelings) as this can help to maintain social order (Fung, 2013; Heyman et al., 2013; Oyserman et al., 2002; Triandis, 2001). Indeed, greater levels of collectivism have predicted more favorable evaluations of *modesty lies* among adolescents (Fu et al., 2011) and children (Fu et al., 2010). Thus, it is possible that these cultural values also predict evaluations during adulthood. As such, we assessed the relation between collectivism and individualism in the present study.

Together, this moral evaluation research provides insight into the (dis)approval of children's deception and how these evaluations can differ with age and across cultures. To summarize and visually depict the patterns in moral evaluations that have been compared developmentally across Eastern and Western countries, refer to Fig. 1. The present study sought to extend the developmental pattern of moral evaluations beyond middle adulthood. Understanding how older adults morally perceive truths and lies can help to explain *why* older adults may be more honest themselves (Milojev & Sibley, 2017; O'Connor et al., 2022; O'Connor & Evans, 2022; Serota et al., 2010), and will uncover how truthful and deceptive communication may either help or harm older adults with the goal of enhancing meaningful interactions within and across generations.
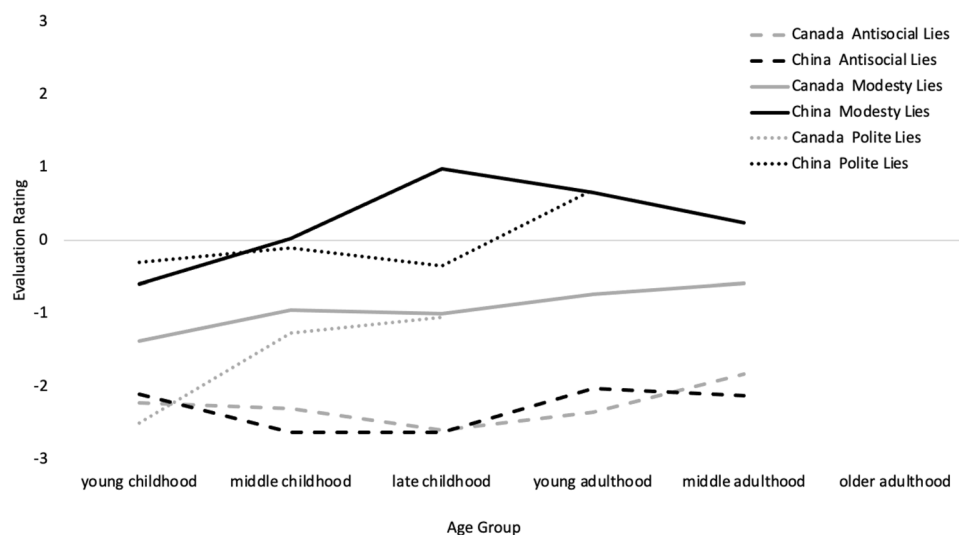

Fig. 1 This Figure presents cross-sectional results within and across studies (i.e., no longitudinal data is presented). Across lies, young childhood = 7 years, middle childhood = 9 years, late childhood = 11 years, with the exception of *Canada Polite Lies* where young childhood = 4–6 years, middle childhood = 7–9 years, late childhood = 10–12 years. Cross-cultural data on *Antisocial* and *Modesty Lies* were collected in the same studies: child evaluations are from Lee et al. (1997) and adult evaluations are from Fu et al. (2001). Cross-cultural data on *Polite Lies* were collected from two separate studies: Chinese participants are from Xu et al., (2009) and Canadian participants are from Popliger et al. (2011). Across studies, evaluations were provided on a 6-point scale (either -3 to + 3 or 1–6) and were all re-coded to range from -3 (very bad) to + 3 (very good) for the purpose of this figure

Completing the lifespan morality model of dishonesty: later adulthood

From a theoretical aging perspective, there are several factors that are important to consider when thinking about how older adults may morally evaluate truths and lies. Socioemotional selectivity theory suggests that the sense that one's time is running out motivates older adults to pursue emotionally meaningful goals and to invest in important relationships (Carstensen et al., 1999; Charles & Carstensen, 2010). Given the importance of trust in meaningful relationships, and that lies can break trust, (Cook, 2001), older adults may be less approving of all forms of lying because honest and open communication may strengthen social bonds and satisfy emotional goals that are particularly salient later in life. Yet, older adults have been found to engage in greater helping or prosocial behaviors, show greater neural reward activation when giving to others, are more forgiving of others, and experience greater emotion regulation compared to younger adults (e.g., Allemand, 2008; Freund & Blanchard-Fields, 2014; Hubbard et al., 2016; Mayr & Freund, 2020). Therefore, it is also possible that older adults may disapprove of self-serving lies while being particularly accepting of lies that are told to benefit others because of their greater prosocial tendencies. However, it is important to consider the complexity behind prosocial lying. DePaulo et al. (1996) found that when adults lied to others (regardless of if this lie was to benefit the self or others), the interaction was rated as less meaningful than their honest interactions, suggesting that any lie may create distance or stress within a social interaction that older adults may be socially motivated to avoid.

Various studies have also found age differences in evaluations of social behaviors more broadly, and these studies highlight the importance of both cognitive and socioemotional factors in understanding such age differences. For example, dynamic integration theory suggests that older adults may interpret negative situations or experience negative affect differently than younger adults, in part, because of cognitive decline as negative stimuli and emotions are more cognitively complex to process (Labouvie-Vief, 2003). In addition, when evaluating negative social behaviors, older adults tend to attribute the cause of the behavior to the person (i.e., dispositional attribution), rather than considering situational factors that can demand more cognitive resources (Blanchard-Fields, 1994; Blanchard-Fields et al., 2012). Particularly relevant for the present study, Hess and Auman (2001) also found that when reading about a character performing a dishonest behavior, older adults rated that character as more dishonest than younger adults did, suggesting that older adults may be particularly sensitive to attributing social

behaviors directly to the individual's character. Considering that younger and older adults differ both in their social motivations and how they cognitively process negative behavior, it is likely that they also differ in how they evaluate a morally complex social behavior, such as lying.

The present study

The present investigation explored how younger and older adults evaluate truths and lies, and if these age effects differed across countries (Canada, Singapore, China). We sought to extend research on evaluations of *antisocial, modesty, and polite lies* that have previously been studied from childhood to middle adulthood to assess how this developmental pattern may continue to change into later adulthood. We also explored how one's level of collectivism and individualism relate to one's moral evaluations of lies. Given the unique moral complexity of lies (Lee, 2013), we focused this final analysis on evaluations of lies in particular.

Hypotheses

Age differences First, as older adults are more honest themselves (Ashton & Lee, 2016; Debey et al., 2015; Milojev & Sibley, 2017; O'Connor & Evans, 2022; O'Connor et al., 2022; Serota et al., 2010) and value close social relationships (Carstensen et al., 1999), they may evaluate all lies more harshly than younger adults because of the importance of trust in relationships. Yet, at the same time, this may result in more lenient evaluations of lies because of older adults' lower negative affect (Labouvie-Vief, 2003) and greater willingness to forgive others to maintain positive emotional states (Allemand, 2008). In addition, it is possible that older adults may be particularly approving of lies that benefit others (*polite and modesty lies*) given their greater prosocial tendencies (Mayr & Freund, 2020). Thus, this analysis did not include a directional hypothesis as theoretical explanations could predict either direction of effects.

Cultural differences Considering *antisocial lies* tend to show little cultural variation (Cheung et al., 2015; Fu et al., 2001; Lee et al., 1997; Mealy et al., 2007), we did not predict a country difference in these evaluations. For *modesty lies,* we expected to replicate and extend previous research with younger participants (Fu et al., 2001, 2011; Lee et al., 1997) whereby younger and older adults in China would rate modesty lies the most favorably, followed by adults in Singapore, and adults in Canada would rate modesty lies the most negatively. As *polite lies* are also other-oriented and can help to maintain group harmony, we expected the same

pattern of modesty lies across countries to be present when evaluating polite lies.

Collectivism and individualism As evaluations of *antisocial lies* tend to not differ across cultures, we predicted that collectivism and individualism would not be related to evaluations of *antisocial lies.* However, previous research with adolescents (Fu et al., 2011) and parents (Fu et al., 2001) has found that greater levels of collectivism and lower levels of individualism is associated with greater approval of *modesty lies*. We expected to replicate these findings within our adult sample, and we expected this effect to also apply to *polite lies* as these lies are other-oriented and can help to maintain group harmony.

Method

Participants

A total of 401 adults across three countries (Canada, Singapore, China) and two age groups (younger and older adults) were included in the present study. Three participants were excluded for not completing the moral evaluation questionnaire. In each country, younger adults were recruited from their university and older adults were recruited from community events. The sample size was calculated by a power analysis (G*Power 3.1; alpha = 0.05, power = 0.80, small effect) determining a total of 110 participants per country (55 younger and 55 older adults).

In Canada, 73 younger adults (M_{age} = 20.51, SD = 1.97, range = 18–28 years, 30% male) and 61 older adults (M_{age} = 70.49, SD = 6.42, range = 60–85 years, 28% male) participated. All younger adults were current undergraduate students at a Canadian university and approximately 63% identified as White, 11% as Black, 10% as South Asian, 5% as mixed race, 4% as Latinx, 4% as South East Asian, and 3% as West Asian. Approximately 13% of older adults completed a postgraduate degree, 30% completed an undergraduate degree, 34% completed a college degree, 18% completed high school, and 2% completed primary school as their highest level of education. Ninety percent of older adults were White and 10% were mixed race.

In Singapore, 69 younger adults (M_{age} = 20.25, SD = 1.22, range = 18–23, 48% male) and 64 older adults (M_{age} = 66.27, SD = 5.54, range = 60–80 years, 42% male) participated. All younger adults were current undergraduate students at a Singaporean university and 84% were Chinese, 7% were Malaysian, 6% were Indian, and 3% were mixed race. Among older adults, approximately 5% completed a postgraduate degree, 14% completed an undergraduate degree, 19% completed a college or technical degree, 47% completed high school, and 8% completed primary school as their highest level of education (7% missing data). Ninety-four percent of older adults were Chinese, 5% were Indian, and 2% were mixed race.

In China, 72 younger adults (M_{age} = 20.93, SD = 1.73, range = 18–25 years, 47% male) and 62 older adults (M_{age} = 67.05, SD = 5.86, range = 60–86 years, 53% male) participated. All younger and older adult participants were Chinese. All younger adult participants were current undergraduate students at a Chinese University. Among older adults, approximately 44% completed a college or technical degree, 39% completed high school, and 18% completed primary school as their highest education.

Measures

Moral evaluations questionnaire

Six truth-and lie-telling scenarios were developed to assess moral evaluations across the three lie categories (see Supplemental Materials for the questionnaire). Each lie category contained two scenarios, as follows: *Antisocial* (lying about stealing an item, lying about having an affair), *Modesty* (lying about donating money, lying about winning an award), *Polite* (lying about liking a gift, lying about one's appearance). The structure of and scenarios in this questionnaire were adapted from previous studies (e.g., Fu et al., 2001, 2011; Lee et al., 1997; Xu et al., 2010). As each lie category contained two scenarios, evaluation ratings across the two scenarios were averaged together to produce a lie evaluation rating and a truth evaluation rating for each category. These 3 lie variables (antisocial lies, modesty lies, polite lies) and 3 truth variables (antisocial truths, immodest truths, blunt truths) served as the main dependent variables. The research team worked collaboratively (in Canada, Singapore, and China) to ensure that the scenarios were relevant across cultures. The questionnaire was translated from English into Mandarin by the second author and back translated by another native speaker of Mandarin, both of whom were fluent in English and Mandarin. Participants in Canada completed the English version, participants in China completed the Mandarin version of the survey, and participants in Singapore could choose to receive either the English or Mandarin version of the survey.

In each scenario, participants first read a brief description of the story character and the social situation where the character tells the truth or a lie. Participants were asked to categorize the character's statement as a truth or a lie and were then asked to evaluate how good or bad it would be to tell a [truth or lie] in this situation on the following scale: *very bad* (-3), *bad* (-2), *somewhat bad* (-1), *not good or bad* (0), *somewhat good* (1), *good* (2), *very good* (3). Participants were then told to imagine that the character told the opposite type of statement (truth or lie) and were again asked to categorize and evaluate that statement. The order in which these statements were presented (truth first or lie first) was counterbalanced across participants.

Important information was provided about the story characters. First, participants read scenarios of characters

matched to their own gender and country (e.g., females in Canada read about females in Canada; males in China read about males in China). Second, the ages of the characters were manipulated such that participants read the six scenarios across two blocks (order of blocks counterbalanced across participants), one block with younger adult characters and one block with older adult characters.[2] The names of the characters were modified to present common names within a given country and age group.

Auckland individualism and collectivism questionnaire (AICS)

Consistent with prior research exploring how collectivism and individualism relate to moral evaluations of dishonesty (Fu et al., 2011), participants completed the Auckland Individualism and Collectivism Questionnaire (AICS; α=0.765; see further details on this scale in Shulruf et al., 2007). Participants were instructed to respond to 30 questions about themselves on a 6-point Likert scale from (1) *never or almost never* to (6) *always*. Eighteen items measured levels of collectivism across three subfactors: Advice (seeking advice from others), Harmony (maintaining harmony with others), and Closeness (staying close to others). Twelve items measured levels of individualism across three subfactors: Competitiveness (a desire to compete with others), Unique (viewing yourself as a unique individual), and Responsibility (taking accountability for your own actions). In the present study, average collectivism and individualism scores were calculated across these subfactors (following Fu et al., 2011), such that higher scores indicate greater levels of collectivism (e.g., "I consult with my family before making an important decision") and individualism (e.g., "I see myself as my own person").

Procedure

Participants completed the present study at home via an online questionnaire or a paper booklet. All younger and older adults in Canada participated in this study online via a Qualtrics survey link. Participants in Singapore chose between completing the questionnaire online through the Qualtrics link or mailing their completed paper survey after participating. All participants in China participated in this study via paper survey. Participants first provided Informed Consent before completing the moral evaluation questionnaire followed by the AICS and demographic information.[3]

All participants were provided with a debrief information sheet. The present study was approved by the respective Research Ethics Boards.

Results

Analytic plan

Preliminary analyses revealed no significant gender effects for moral evaluations; thus, all reported analyses collapse across gender. Participants correctly categorized lies as lies and truths as truths approximately 95% of the time, indicating that participants correctly identified the veracity of the statements. Analyses exploring moral evaluations of these lies and truths were conducted only on correct categorizations; therefore, degrees of freedom vary slightly across analyses.

To explore age and country differences in moral evaluations, a series of 2 (age: younger *vs.* older adults)×3 (country: Canada, Singapore, China) between-subjects ANOVAs were conducted separately for each lie evaluation and truth evaluation. Multiple comparisons for post-hoc tests on the country variable were adjusted for with a Tukey HSD correction where appropriate. The results are presented below separated by lie type (*antisocial, modesty, polite)*. Refer to Figs. 2 and 3. for age by country interactions and to Fig. 4 for all main effects of country.

Of note, as all participants in China were Chinese and most participants in Singapore were Chinese, we conducted exploratory analyses to directly compare moral evaluations from Chinese participants in Singapore and China (i.e., excluding those in Singapore who were not Chinese). These results can be found in supplemental material, although all but one effect is replicated regardless of samples. The results below are presented across the full sample.

Antisocial lies and truths

When evaluating *antisocial lies,* there was a significant main effect of age group, $F(1, 395) = 4.87$, $p = 0.028$, $\eta_p^2 = 0.012$, where younger adults rated *antisocial lies* more harshly ($M = -1.90$, $SD = 0.85$) than older adults did ($M = -1.70$, $SD = 1.02$).[4] There was also a significant main effect of country, $F(2, 395) = 6.37$, $p = 0.002$, $\eta_p^2 = 0.031$. Post-hoc tests indicated that adults in Canada

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[2] Character age was manipulated to test if our results were driven by the age of a given character; however, preliminary analyses revealed no significant character age effects when controlling for survey order (reading about younger or adult characters first; $ps > .135$); therefore, character age was not further examined, and results are presented collapsed across character age.

[3] The present data was collected as part of a large multi-purpose study. Participants completed additional measures that were beyond the scope of the present cross-cultural study (i.e., evaluations of additional dishonesty categories and social and health measures).

[4] This age effect for *antisocial lies* was only significant when evaluating lies to conceal an affair ($p < .001$), with no age effect when evaluating lying about stealing an item ($p = .264$). All subsequent significant participant age effects reported were consistent across both stories.

Fig. 2 The age by country interaction for modesty lies is depicted. Age effects were significant in each country apart from *Modesty Lies* in China where there was no significant age effect. Error bars are SE of the mean
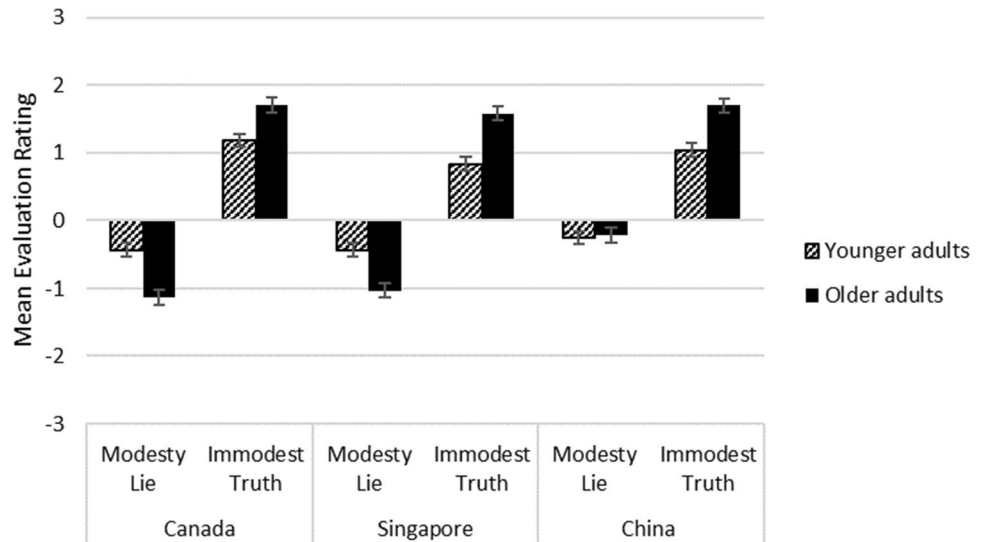

Fig. 3 The age by country interaction for polite lies is depicted. Age differences were significant in each country. Error bars are SE of the mean
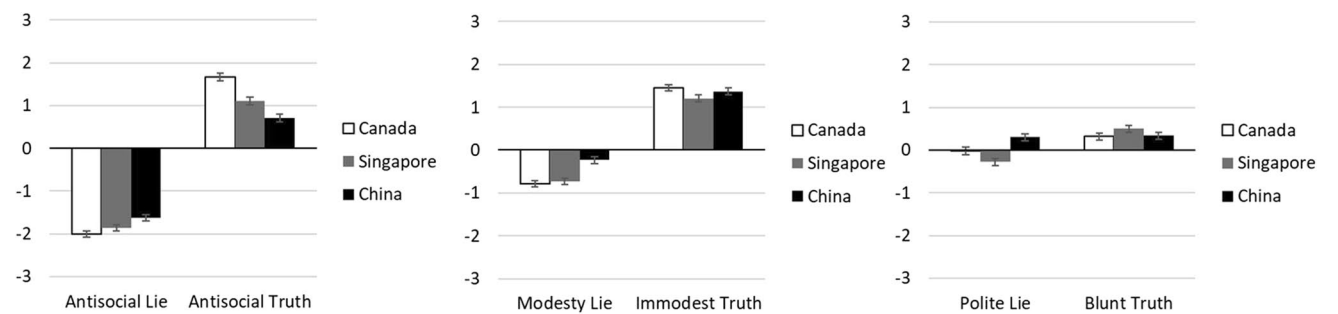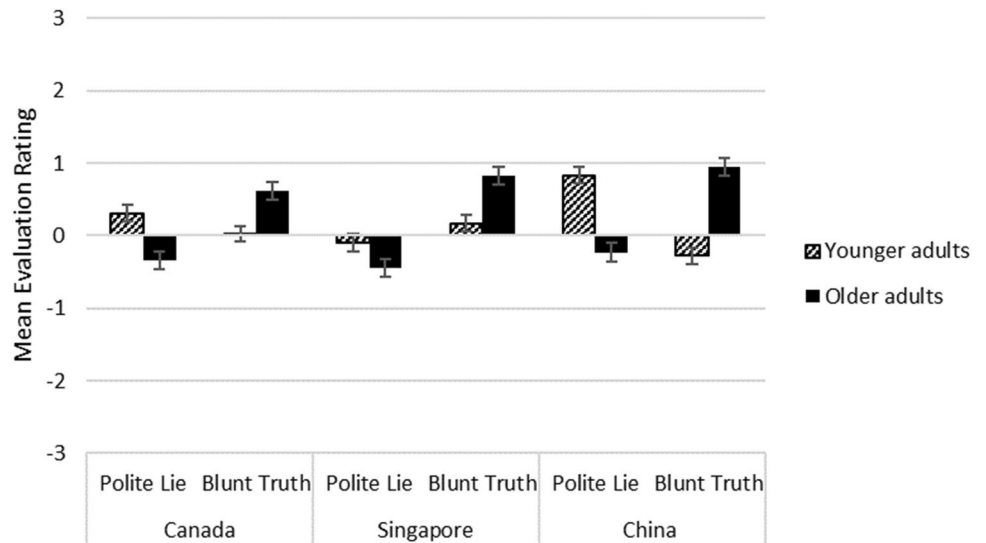

Fig. 4 Main effects of country (Canada, Singapore, China) across lie and truth evaluations. Error bars are SE of the mean

rated *antisocial lies* more harshly than adults in China ($p = 0.002$), and ratings in Singapore did not significantly differ from either country ($ps > 0.108$). See Fig. 4. The

interaction between age and country was not significant, $F(2, 395) = 1.60$, $p = 0.204$, $\eta_p^2 = 0.008$.

When evaluating *antisocial truths*, there was a significant main effect of country, $F(2, 395) = 24.84$, $p < 0.001$,

Table 1 Means (standard deviations) of collectivism and individualism scores across age groups and countries

	Canada			Singapore			China		
	Younger adults	Older adults	Total	Younger adults	Older adults	Total	Younger adults	Older adults	Total
Collectivism	4.35 (0.52)	4.07 (0.56)	4.22 (0.55)	4.27 (0.43)	4.02 (0.55)	4.15 (0.50)	4.40 (0.49)	4.34 (0.60)	4.37 (0.54)
Individualism	4.59 (0.56)	4.27 (0.54)	4.45 (0.57)	4.31 (0.50)	4.12 (0.64)	4.22 (0.58)	4.40 (0.58)	4.30 (0.65)	4.36 (0.61)

$\eta_p^2 = 0.112$ (Fig. 4), and post-hoc tests indicated that adults in Canada were more approving of these truths than adults in Singapore ($p < 0.001$) and China ($p < 0.001$), and adults in Singapore were more approving of truths than adults in China ($p = 0.007$). Neither the main effect of age nor the interaction was significant ($ps > 0.089$).

Modesty lies and immodest truths

Evaluations of *modesty lies* produced significant main effects of age, $F(1, 394) = 23.32$, $p < 0.001$, $\eta_p^2 = 0.056$, country, $F(2, 394) = 15.81$, $p < 0.001$, $\eta_p^2 = 0.074$, and a significant age by country interaction, $F(2, 394) = 6.59$, $p = 0.002$, $\eta_p^2 = 0.032$. The main effect of age indicated that older adults provided harsher evaluations to *modesty lies* compared to younger adults. However, this was qualified by an interaction with country (Fig. 2). Interpreting the interaction, follow-up analyses revealed that there was a significant main effect of age group in Canada ($p < 0.001$, $\eta_p^2 = 0.161$), and Singapore ($p = 0.001$, $\eta_p^2 = 0.076$), but not in China ($p = 0.904$). Specifically, in Canada and Singapore, older adults provided harsher evaluations to *modesty lies* compared to younger adults (Fig. 2). The main effect of country (Fig. 4) indicated that, overall, adults in Canada and Singapore rated *modesty lies* more harshly than adults in China ($ps < 0.001$), and ratings from Canada and Singapore did not significantly differ from one another ($p = 0.859$).

Evaluations of *immodest truths* produced a main effect of age, $F(1, 329) = 45.98$, $p < 0.001$, $\eta_p^2 = 0.123$. Older adult participants evaluated *immodest truths* more favorably than younger adults (Fig. 2). Neither the main effect of country nor the interaction was significant ($ps > 0.266$).

Polites lies and blunt truths

When evaluating *polite lies,* there were significant main effects of age, $F(1, 395) = 47.91$, $p < 0.001$, $\eta_p^2 = 0.108$, and country, $F(2, 395) = 10.33$, $p < 0.001$, $\eta_p^2 = 0.050$, and a significant age by country interaction, $F(2, 395) = 5.46$,

$p = 0.005$, $\eta_p^2 = 0.027$. Follow-up analyses determined that the effect of age was significant in Canada ($p < 0.001$, $\eta_p^2 = 0.092$) and in China ($p < 0.001$, $\eta_p^2 = 0.267$), but failed to reach significance in Singapore ($p = 0.089$, $\eta_p^2 = 0.022$). In Canada and China, older adults were less approving of telling *polite lies,* such that older adults rated these lies negatively while younger adults rated them positively. See Fig. 3. The main effect of country (Fig. 4) demonstrated that adults in Singapore and Canada rated *polite lies* more negatively than adults in China ($ps < 0.026$), and ratings in Singapore and Canada did not significantly differ from one another ($p = 0.065$).

When evaluating *blunt truths,* there was a main effect of age, $F(1, 322) = 52.32$, $p < 0.001$, $\eta_p^2 = 0.140$, that was subsumed by a significant age by country interaction, $F(2, 322) = 3.61$, $p = 0.037$, $\eta_p^2 = 0.020$. See Fig. 3. The pattern of this age effect was similar across countries, such that in Canada ($p = 0.005$, $\eta_p^2 = 0.073$), Singapore ($p = 0.001$, $\eta_p^2 = 0.086$), and China ($p < 0.001$, $\eta_p^2 = 0.295$), older adults rated *blunt truths* more positively than younger adults, but this age effect was greater among adults in China compared to the other two countries.

Collectivism and individualism

Descriptive data for collectivism and individualism are available in Table 1. There were significant main effects of age group across collectivism, $F(1, 395) = 14.00$, $p < 0.001$, $\eta_p^2 = 0.034$, and individualism scores, $F(1, 394) = 12.56$, $p < 0.001$, $\eta_p^2 = 0.031$, such that younger adults reported being higher in both scores compared to older adults. There were main effects of country across collectivism, $F(2, 395) = 6.76$, $p = 0.001$, $\eta_p^2 = 0.033$, and individualism scores, $F(2, 394) = 4.72$, $p = 0.009$, $\eta_p^2 = 0.023$. Post-hoc tests (Tukey HSD) revealed that adults in China were higher in collectivism than in Canada ($p = 0.043$) and in Singapore ($p = 0.043$). Adults in Canada were higher in individualism than adults in Singapore ($p = 0.005$). No other effects or comparisons were significant ($ps > 0.05$).

A series of hierarchical linear regressions were conducted to examine if collectivism or individualism scores

predicted moral evaluations of lies. A hierarchical linear regression was conducted on each lie dependent variable (*antisocial lies, modesty lies, prosocial lies*) with country entered on Step 1 (with China as the reference variable), age group entered on Step 2 (0 = younger adults, 1 = older adults), standardized collectivism and individualism scores entered on Step 3, and the interactions between country and collectivism/individualism and age group and collectivism/individualism entered on Step 4. Only the three *lie* variables were included as dependent variables as we were interested in further exploring predictors of lies in particular. Only the highest-order significant results from Steps 3 or 4 are presented to explore if collectivism and individualism predicted evaluations after controlling for country and age group differences, and, for simplicity, only the regressions where collectivism or individualism significantly predicted moral evaluations of lies are reported. Standardized Betas are reported. The full regression analyses across all three DVs are available in Supplemental Material.

When evaluations of *polite lies* served as the dependent variable, scores on Step 3 significantly contributed to the model, $F\Delta (2, 394) = 3.50$, $p = 0.031$, $R^2\Delta = 0.015$, such that above and beyond country and age, greater levels of collectivism predicted greater approval of *polite lies,* $\beta = 0.128$, $t = 2.53$, $p = 0.009$.

Mediation analysis Given that collectivism predicted evaluations of *polite lies,* and adults in China scored higher in collectivism and evaluated *polite lies* more favorably, a mediation analysis was conducted to explore if country predicted evaluations of polite lies *through* levels of collectivism. As participants in Canada and Singapore did not significantly differ in collectivism, but they did differ from those in China, participants were collapsed across Canada and Singapore for the mediation analysis. As such, country (0 = Canada and Singapore; 1 = China) served as the predictor, evaluations of *polite lies* served as the outcome variable, and collectivism scores served as the mediator. We tested the total effect (country predicting evaluations of *polite lies*), the direct effect (country predicting evaluations of *polite lies* controlling for collectivism scores), and the indirect effect (country predicting evaluations of polite lies *through* collectivism scores). The Process macro for SPSS was used to test the indirect effect. Unstandardized slope coefficients and bootstrapped confidence intervals are reported.

Both the total effect, $b = 0.441$, $p < 0.001$, 95% CI [0.224, 0.657], and the direct effect, $b = 0.371$, $p < 0.008$, 95% CI [0.155, 0.587] were significant. However, the indirect effect was also significant, $b = 0.070$, 95% BCa CI [0.022, 0.134], as the bootstrapped confidence interval did not contain zero. This suggests a partial mediation where adults in China rated *polite lies* more favorably, in part, because of their greater levels of collectivism. See Fig. 5.
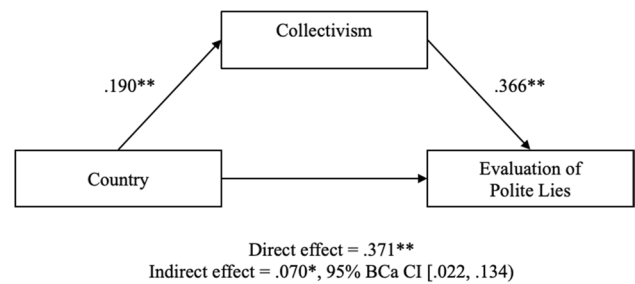

Direct effect = .371**
Indirect effect = .070*, 95% BCa CI [.022, .134]

Fig. 5 Unstandardized slope coefficients for paths a, b, and c' depicting a partial mediation. *Note.* **$p < .008$. The country variable contrasts Canada and Singapore (0) from China (1)

Discussion

The present study explored how younger and older adults in Canada, Singapore, and China morally evaluate truths and lies in antisocial, modesty, and politeness settings. Several age and country differences were found across the truth and lie categories, suggesting that age differences in moral evaluations of (dis)honesty do persist into later life and can also differ by one's cultural environment. Most prominently, older adults across all three countries were more approving of blunt and immodest honesty compared to younger adults. These results present an important distinction between younger and older adults, where younger adults prefer polite lying while older adults prefer blunt or direct honesty. In addition, overall, greater collectivism predicted greater approval of *polite lies,* and greater levels of collectivism in China partially mediated their more favorable evaluation of *polite lies.*

How younger and older adults morally evaluate (dis)honesty

Our first goal was to examine if younger and older adults differed in their moral evaluations of lies. As prior research has found no age differences in evaluations of *antisocial lies* with younger samples (Cheung et al., 2015; Fu et al., 2001; Lee et al., 1997) it was surprising to find that older adults rated *antisocial lies* more leniently than younger adults did. Yet, this age effect was only present when evaluating a lie to conceal a romantic affair, with younger and older adults providing similar ratings to a lie to conceal stealing. As prior developmental research has been primarily conducted on *children's lies,* lies about romantic affairs were not included, and our null age effect on stealing is consistent with prior research examining this type of antisocial lie. It is possible that older adults were more accepting of a lie to conceal a romantic affair because of their advanced experience with the challenges and complexities that can accompany long-term relationships or marriages relative to young adults.

Indeed, past research has found that adults evaluate others' lies more leniently if they themselves had experience with the issue at hand (O'Connor & Evans, 2022). This finding also aligns with research reporting that older couples can cope better with relational disputes compared to younger couples (Charles & Carstensen, 2010). Considering the greater complexity of negative emotions and experiences, it also possible that older adults were more prone to disengage from negative emotions that may arise from this scenario (in line with dynamic integration theory; Labouvie-Vief, 2003), thereby producing less negative moral evaluations.

For the good-intentioned lies (i.e., *modesty and polite lies*), an opposite age effect emerged, and older adults evaluated these lies more harshly than younger adults. Thus, not only are older adults less likely to be deceptive (Debey et al., 2015; O'Connor & Evans, 2022; O'Connor et al., 2022; Serota et al., 2010), they also morally evaluate dishonesty more harshly when it is used for prosocial purposes. These results present an important distinction between younger and older adults, where younger adults preferred polite lying while older adults preferred blunt or direct honesty.

Of importance, the age effects in *modesty* and *polite lies* also interacted with country. The age effect in *modesty lies* was only significant in Canada and Singapore and not in China. Given that modesty lies are most accepted in China as such lies support social harmony (Cameron et al., 2012; Fu et al., 2001; Lee et al., 2001; Xu et al., 2010), these results suggest that this greater approval of modest communication in China extends into later adulthood and transcends across younger and older adults. The age effect in *polite lies* was significant in Canada and China, and although the means followed the same pattern in Singapore (with older adults providing harsher evaluations to *polite lies*), the effect was not significant in Singapore. In looking at the pattern of results (Fig. 3) it appears that older adults did perceive *polite lies* negatively as in the other countries, but that younger adults in Singapore also rated this negatively. Thus, there may be stronger social norms in Singapore that discourage polite lying and this may transcend across adults. Although the age effect in Singapore was not significant, the pattern of means from older adults provides tentative support for the notion that older adults, across countries, place greater moral value on being honest and transparent with others over lying to conceal one's true feelings to appease others. Indeed, in support of this, we found that older adults rated blunt truths more favorably than younger adults, and this replicated in each country. Given older adults' greater social experience and emotion regulation (Charles & Carstensen, 2010), perhaps older adults are better equipped to provide and receive blunt honesty and to regulate any negative emotions that may arise from this honesty (rather than constructing more polite but socially artificial interactions). Similarly, as the distance between one's actual- and ideal- self decreases with advancing age (Cross & Markus, 1991), this may encourage and allow older adults to receive blunt honesty without this honesty interfering as strongly with their positive self-concept. Younger adults, on the other hand, who may still be developing their core self-concept may perceive blunt honesty (e.g., "I don't like this gift that you got me") more negatively because this experience may serve to justify the larger gap between their actual and ideal self.

From a lifespan perspective (Fig. 1), it is possible that the acceptability of good-intentioned lies follows an inverted-U shaped pattern where these lies become more accepted as one ages throughout childhood and young adulthood, but that there is a developmental shift in later life where approval of these lies declines again in pursuit of greater honesty. Of note, both age groups did hover near the neutral marker in assessing polite lies, thereby recognizing the moral complexity of this scenario, yet younger adults tended to rate polite lies positively while older adults rated this negatively.

Older adults' preference for blunt honesty also helps to situate the honesty literature within broader research on older adults' prosociality. Given that older adults are more prosocial (e.g., Freund & Blanchard-Fields, 2014; Hubbard et al., 2016; Mayr & Freund, 2020), one may reasonably expect that older adults would perceive polite lies favorably as they are told to benefit others. Yet, we found that older adults preferred blunt honesty, and this replicated across three countries, suggesting a critical age-related difference in perceptions of good-intentioned lying. Given extensive research on older adults' greater prosocial tendencies (e.g., Freund & Blanchard-Fields, 2014; Hubbard et al., 2016; Mayr & Freund, 2020), perhaps in later life, blunt honesty is used as a means of helping others, where older adults believe that being honest is more beneficial to others than being deceptive. To better understand the social implications of blunt honesty and good-intentioned lying within intergenerational and intragenerational communication, future research can ask adults more open-ended questions about the social and moral role of blunt honesty and good-intentioned lying.

How adults evaluate (dis)honesty across countries

Another primary objective was to explore if, overall, adults in Canada, Singapore, and China differed in their moral evaluations of (dis)honesty. Across all three lie types, participants in China rated lies the most leniently. This pattern is consistent with prior research suggesting that lies may be viewed as more acceptable in countries that hold greater collective values, as this may be a social strategy to maintain social harmony, uphold social norms, and detract self-attention (Heyman et al., 2013; Fung, 2013; Oyserman et al., 2002; Triandis, 2001). The fact that older adults in China rated *modesty lies* more favorably than the other countries replicated prior research demonstrating this effect from childhood

to middle-adulthood (Fu et al., 2001, 2011; Lee et al., 1997; Xu et al., 2010) and provides novel evidence that this cultural acceptance of modesty lies in China persists into later life.

Adults in Canada and Singapore rated lies more harshly than adults in China and results largely followed the expected continuum with responses from adults in China and Canada as the most dissimilar with Singapore resting in between them. Thus, we found support for the notion that there is cultural variation within Eastern countries, and the multi-value system within Singapore may result in social attitudes that cross between traditional Eastern and Western values (Ang & Stratton, 2018). The exception to this was in evaluations of *polite lies,* where views from Singapore and China were the most dissimilar. This suggests that the preference for lying to appease others may not be embedded to the same extent in Singaporean culture. Adults in China may favor polite lies to maintain social harmony, but perhaps the unique multicultural and modernized value system in Singapore (Ang & Stratton, 2018) emphasizes the importance of individual honesty over the sparing of one's feelings at a social level. This highlights the need for future research to move beyond an Eastern versus Western dichotomy in cross-cultural research. Indeed, in supplemental materials, we directly compared evaluations from Chinese participants in Singapore to Chinese participants in China, replicating our reported country effects (except for antisocial lies- see supplemental materials). For example, Chinese participants in Singapore were less accepting of modesty lies than Chinese participants in China, suggesting that it is likely the different cultural environments in China and in Singapore that shape communication norms rather than one's ethnicity.

How collectivism and individualism predict moral evaluations

Lastly, we measured participants' levels of collectivism and individualism and examined if this predicted moral evaluations of dishonesty. Levels of collectivism significantly predicted moral evaluations of *polite lies.* Consistent with our prediction, greater levels of collectivism predicted greater approval of telling polite lies. This suggests that polite lies in particular may be told to benefit the larger social group, and those who are more oriented to prioritize the collective, regardless of one's cultural context, show greater appreciation for such lying, likely to help others and maintain amicable social interactions.

Moreover, given that adults in China rated higher in collectivism and were more approving of *polite lies,* we tested a mediation model and found that participants in China rated *polite lies* more favorably, in part, because of their greater levels of collectivism. Thus, it is possible that polite lying is a social tool used in collectivist cultures to maintain social harmony, and individuals in this cultural environment are

more accepting of this social behavior. It was surprising that levels of collectivism and individualism did not significantly predict evaluations of *modesty lies* as this has been found in past research (Fu et al., 2010, 2011). Despite the common comparison between collectivism and individualism, these constructs can vary widely in their definition and structure across measures (Wong et al., 2018). For example, the inclusion of competition as an individualistic value has been critiqued, as a desire to compete can also serve collective means (e.g., competing with others to bring honor to one's group or family; Wong et al., 2018). Thus, the values measured in the present study may serve both collective and individual needs in various ways, resulting in unexpected country differences (e.g., similar levels of individualism across China and Canada) and less predictive value when exploring evaluations of communication.

It is important to note that we examined collectivism and individualism as cultural components, but there are additional cultural differences and frameworks that can be considered to understand and interpret the present results. For example, cultural differences in power structure (the extent to which the powerful are expected to be unquestioned or accepted; Hofstede, 2011) may be important to consider when assessing the present research questions. China has been rated as having a larger power distance (those in power are expected to be unquestioned and corruption concealed; Hofstede, 2011). It is possible that participants in China rated lies less negatively because of exposure to concealment norms needed to maintain a large power distance. Another important cultural dimension may be the extent to which a culture emphasizes the importance of social norms and deviance from these norms (i.e., the tightness-looseness dimension; Jiang et al., 2015; Trommsdorff, 2020). China has been ranked as a "tight" country with stricter order and expectations to follow social norms (Gelfand et al., 2011); therefore, adults in China may be more lenient when evaluating lies as lies can be used to maintain social norms (e.g., in antisocial contexts, lying to appear like one did not steal, or in prosocial contexts, lying to follow the modesty social norm). Thus, greater cultural emphasis on following social norms may be associated with greater acceptance of lying as lying can be a tool to maintain appearance of such social norms. Future research would benefit from exploring various cultural dimensions to explore additional mediators of the present country differences.

Implications

The present results hold several important social implications for intergenerational, intragenerational, and cross-cultural communication contexts. Given that younger and older adults gave opposite evaluative reactions to blunt

honesty (preferred by older adults) and good-intentioned lying (preferred by younger adults), this may contribute to intergenerational conflict. For example, telling a polite lie may serve to *help* interactions with younger adults (as they believe this is morally superior) but this same action may *hinder* interactions with older adults (as they perceive the blunt truth to be more acceptable). Therefore, the present results provide insight into how younger and older adults may hold different expectations for communication norms, and knowledge of these differences can help individuals to understand one another and to reduce intergenerational social conflict. We also found that the acceptability of truths and lies varies across countries, suggesting that individuals immersed in different cultural environments may also hold different norms and expectations around honest and dishonest communication. It is essential to gain knowledge on such cultural differences to enhance understanding of various cultural perspectives to reduce social conflict. In sum, it is possible that some social conflict arises because of differences in perceptions of what is "morally acceptable" behavior in conversations with others and gaining insight into these differences can help to raise social awareness and reduce potential conflict.

Limitations and future directions

There are several important limitations to consider when interpreting results from the present study. First, the comparison of the present cultural differences to prior research (Fu et al., 2001, 2011; Lee et al., 1997; Xu et al., 2009; Fig. 1) are cross-sectional and some previous studies exploring moral evaluations among younger participants were completed over a decade ago. Given that cultural and social contexts do change over time (e.g., Fung, 2013), it is possible that some differences in the present data on adults and prior research on children is partially attributable to changing cultural norms over time. In addition, our present age effects are cross-sectional; therefore, we cannot rule out that there may be cohort or generational differences that are driving the results rather than pure age-related change. Though there is no longitudinal work on evaluations of lies, Milojev and Sibley (2017) did find that honesty-humility personality traits linearly increased *across* cohorts and *within* cohorts over time, providing some longitudinal evidence that honesty does increase with age across the adult years (see also Ashton & Lee, 2016 for a discussion on longitudinal change). Thus, there is at least longitudinal evidence of age-related change in *honesty*, and it is possible that moral perceptions of honesty follow a similar pattern over time, but a longitudinal study will be an important next step to confirm if these are genuine age-related changes beyond cohort effects. Nevertheless, the present results provide an interesting starting point by demonstrating a key difference

between younger and older adults' moral opinion of truthful and dishonest communication.

Another important step for this area of research is to explore younger and older adults' moral evaluations of lies in relation to one's own lying behaviors as this has largely been examined only with younger ages (e.g., Fu et al., 2008; Popliger et al., 2011; Xu et al., 2010). Researchers may also seek to ask participants to explain their moral evaluation rating to provide deeper insight into age-related and cultural differences in moral justifications. Future research may also wish to add a cognitive dimension to this research by exploring the role of cognitive ability or socio-cognitive skills, such as theory-of-mind, in moral evaluations of others' lies. To further generalize these results, future research can test more representative younger and older adult samples. For instance, majority of our older adults in China were recruited from cities rather than rural areas. Future research can also test our effects in additional countries (e.g., countries in Europe or Africa) to further explore the cultural stability in the age-related preference for blunt honesty.

Conclusion

The present study found that compared with younger adults, older adults are more approving of blunt and immodest honesty (across countries), and less approving of "good-intentioned" *modesty lies* (in Canada and Singapore) and *polite lies* (in Canada and China). On the contrary, older adults gave more lenient evaluations to an *antisocial lie* to conceal a romantic affair compared to younger adults (across countries). A general pattern emerged across countries where adults in Canada tended to express the greatest disapproval of lies, followed by adults in Singapore, and adults in China expressed the least disapproval of lies. The present study therefore uncovered an interesting age difference in moral perceptions, where polite lying is generally deemed more acceptable by young adults whereas blunt honesty is preferred by older adults. These results can help to understand the intentions behind older adults' communication, demonstrating that older adults place greater moral value on blunt honesty than polite, yet deceptive, interactions, and this effect is largely stable across countries.

Declarations

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