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2020

Setoh, P., Santos, R., Zhao, S., Zhang, L., Heyman, G. D. & Lee, K. (2020). Parents with greater religiosity lie less to their children. *Psychology of Religion and Spirituality*.
<https://dx.doi.org/10.1037/rel0000377>

<https://hdl.handle.net/10356/150717>

<https://doi.org/10.1037/rel0000377>

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Parents With Greater Religiosity Lie Less to Their Children

Peipei Setoh^{1*}, Rachel Santos^{2*}, Siqu Zhao¹, Lijun Zhang³, Gail D. Heyman^{4, 5}, & Kang Lee^{2, 5}

¹ Division of Psychology, School of Social Sciences, Nanyang Technological University, Singapore

² Dr. Eric Jackman Institute of Child Study, University of Toronto, ON, Canada

³ Nanyang Business School, Nanyang Technological University, Singapore

⁴ Department of Psychology, University of California, San Diego, USA

⁵ Department of Psychology, Zhejiang Normal University, Jinhua, China

*** Rachel Santos contributed equally with Peipei Setoh, thus sharing the first authorship with Peipei Setoh.**

Corresponding Authors:

Peipei Setoh, School of Social Sciences, Nanyang Technological University, 48 Nanyang Avenue, Singapore 639818. Email: psetoh@ntu.edu.sg

Kang Lee, Dr. Eric Jackman Institute of Child Study, University of Toronto, 45 Walmer Road, Toronto, ON, Canada M5R 2X2. Email: kang.lee@utoronto.ca.

Acknowledgments:

This research was supported by Nanyang Technological University Start-up Grant (M4081490) and Singapore Ministry of Education Social Science Research Thematic Grant (MOE2016-SSRTG-017) to Peipei Setoh.

Abstract

The current study extends the limited body of research on the relationship between parental lying and religiosity by investigating four types of lies told by Singaporean parents. We found that, in contrast to Chinese and American parents (Heyman et al., 2013), greater religiosity among Singaporean parents is related to less lying to children, with the exception of white lies. This pattern of findings suggests that the effect of religiosity on parental lying may be culturally and/or religion-specific. Such findings expand the current literature and provide insight into parenting practices that are near-universal, as well as to the kinds of experiences that are likely to influence children as they begin to form their own understanding of lying.

Keywords: Religiosity; Lying; Parenting; Socialization; Dishonesty

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Parents play a fundamental role in children's moral socialization (Killen & Smetana, 2015; Maccoby, 1992). Parents significantly affect the internalization of moral values and attitudes in children (Grusec & Goodnow, 1994) and serve as models for socially and morally appropriate behaviors. One framework for understanding parents' influence is social learning theory, which focuses on learning through direct observation, imitation, and modeling of others (Bandura, 1977). When children observe their parents, this creates opportunities for them to learn how, when, and in what situations a behavior is or is not appropriate. Although parents are often consistent with what they directly teach their children, this is not always the case, such as when parents lie to others in front of their children or directly to their children. In this case, parents' lies directly contradict their explicit emphasis on the importance of honesty. This contradiction may pose a challenge to children's moral socialization because parents are the primary and most important role models in childhood (Setoh et al., 2020). For example, Santos et al. (2017) and Setoh et al. (2020) found that young adults who experienced more parental lying as a child were also more likely to lie to their parents as adults. This finding suggests that parental lying may contribute to children's own lying behavior in both the short-term and long-term. Hence, prior research suggests that parental lying poses challenges to children's moral socialization, specifically children's practice of lying, even in the face of parents' apparent disapproval of such behaviors.

Studies on deception in parent-child relationships have mainly focused on children's lying behavior (e.g., Bureau & Mageau, 2014; Engels et al., 2006). In recent years, however, researchers have started to investigate the phenomenon of parental lying. One factor that may be linked to parental lying is religiosity. There could be such a link given the theoretical argument

that the major religions of the world discourage dishonest behaviors, such as lying. Because religious beliefs and practices are ways to create and be a part of a moral community (Graham & Haidt, 2010), religiosity could influence how parents socialize and guide their children. However, the research to date has been inconsistent, with some research suggesting that religiosity is a predictor for higher levels of honesty (Stavrova & Siegers, 2013) and other research suggesting that it may not be (Heyman et al., 2013). The present research builds on a small body of studies on this topic by examining the relationship between parental lying and religiosity in a new cultural context, Singapore, where over 80% of the population identifies as being religious (Singapore Department of Statistics, 2010).

Parental Lying Behaviors

According to the speech act theory, lying is characterized by the intentional act of deceiving others through words (Austin, 1962; Lee, 2000, 2013). Lying is an intentional behavior that can serve several social functions, such as manipulating others' emotions and feelings (Lee, 2013). It is a common practice found in close relationships, including among family members, friends, and romantic partners. Previous research has primarily categorized these lies into two categories: self-oriented lies and other-oriented lies (DePaulo & Kashy, 1998; Ennis et al., 2008; Zanette et al., 2020). Self-oriented lies are told to benefit the self. Both children and adults consider self-oriented lies as morally wrong and unacceptable (Bussey, 1999; Heyman et al., 2009; Talwar et al., 2002). Other-oriented lies, on the other hand, are told to enhance or to protect other's feelings. Other-oriented lies are evaluated more positively than self-oriented lies and can even be seen as permissible (Bussey, 1999; Ma et al., 2011). Moreover, self-oriented lies are more frequent in casual relationships with acquaintances or strangers, while other-oriented lies have a higher prevalence in close relationships such as friendship (DePaulo &

Kashy, 1998). Correspondingly, young adults, when reporting on the lies their parents told them, remembered hearing more other-oriented white lies than self-oriented lies such as blatant lies and distortion (Cargill & Curtis, 2017).

To date, there have been a small number of studies directly investigating parental lying. In a pioneering study, Tzeltal farmers in Mexico were documented to frequently make false threats and promises to their children (Brown, 2002). For example, parents would tell their children that there are scary animals in the woods as a means of keeping them from wandering off the farms. Additional research suggests that parental lying is also prevalent in North America and China: Heyman et al. (2013) found that 84% of parents in the United States and 98% of parents in China reported lying to their children frequently. This lying was motivated by several different goals, including controlling their children's behavior (Heyman et al., 2013; Heyman et al., 2009) and influencing the emotional states of their children (Heyman et al., 2013).

Recent research suggests that parental lying may have implications for children's mental health (Heyman et al., 2013; Santos et al., 2017; Setoh et al., 2020). For example, Setoh et al. (2020) examined young adults in Singapore and found that reports of high levels of childhood exposure to self-oriented lying from parents predicted higher levels of externalizing problems, internalizing problems, and psychopathic attributes in adulthood. Similarly, the negative associations between parental lying and children's mental health have also been observed in Canadian females (Santos et al., 2017). Furthermore, the results of these studies suggest that children's rate of lying to their parents functions as a mediator between parental lying and maladjustment problems (Santos et al., 2017; Setoh et al., 2020). As such, parental lying, especially self-oriented parental lying, may promote children's dishonesty and contribute to children's mental health problems.

The Present Research

The current research examined parental lying in a sample of Singaporean parents. Singapore is a city-state in Southeast Asia that was formerly a British colony with Chinese, Malay, and Indian immigrants. In the present study, we focused on the Chinese, which is the ethnic majority in Singapore. For historical and political reasons, Singapore is influenced by both Eastern and Western cultures. People in Singapore are exposed to Western ideas through education and media, and at the same time, they are heavily influenced by Eastern cultural values such as filial piety and more authoritarian parenting styles (Chuang & Su, 2009). Approximately 84% of the Singaporeans are religious (Singapore Department of Statistics, 2010). Singapore maintains religious freedom to its people, thereby leading to the presence of multiple religions throughout the country, including Buddhism (34%), Christianity (11%), Islam (14%), and Hinduism (5%) (Mathew, 2013; Singapore Department of Statistics, 2010).

A recent study that was conducted in over 70 countries found that religious individuals were more likely to disapprove of lying for personal benefit and are less likely to engage in dishonest behaviors (Stavrova & Siegers, 2013). But such findings only applied to countries with relatively high levels of religious freedom. Under both naturalistic and experimental settings, students with greater intrinsic religiosity were more likely to behave honestly when given an opportunity to lie to get a higher score on a quiz (Bloodgood et al., 2008; Perrin, 2000; Ward & King, 2018). Using self-reports, Desmond and Kraus (2012) observed that adolescents who put greater value on religion were also less likely to have lied to their parents in the past year. Moreover, the negative associations between religiosity and lying have been found in Christians, Jews, and Muslims (Arbel et al., 2014; Aveyard, 2014; Perrin, 2000; Ward & King, 2018). For example, a study with primarily Christian participants revealed that adults with greater intrinsic

religiosity were less likely to cheat after recalling their past moral transgressions (Ward & King, 2018). In addition, Jewish students exhibited higher levels of honesty than secular individuals while playing games (Arbel et al., 2014). Hence, it is possible that within Singapore's religious climate, religious parents may be less likely to lie to their children due to their heightened religiosity.

To date, only one study (Heyman et al., 2013) has explored the associations between parental lying and religiosity in the United States and China. In Heyman et al. (2013), researchers found that religiosity did not predict lying for parents. The current study built on Heyman and colleagues' initial investigation by studying this phenomenon in a different population and collecting data on multiple demographic factors such as parent's gender, age, education, number of children and the age of the oldest child in the family, in order to control for their effects on the relationship between parental lying and religiosity. Additionally, while Heyman and colleagues used a one-item measure of religiosity, the current study used DUREL (The Duke University Religion Index); a multi-dimensional measure of religiosity, including the level of involvement in both public and private religious activities and intrinsic motivation toward following a religion (Koenig & Büssing, 2010). In the literature, DUREL has been widely used in studying the implications of religiosity on prosocial tendencies and moral evaluations (e.g., Kor et al., 2019; Rabelo & Pilati, 2019).

We chose Singapore as the site of the present research because it constituted an interesting case of comparison to societies in the U.S. and China. Singapore and the U.S. are similar in terms of the religious landscape. In both countries, about 80% of the population reports being religious. Additionally, Christianity is the largest religious group in the U.S. and the second-largest in Singapore (Singapore Department of Statistics, 2010; Kosmin & Keysar,

2009). Meanwhile, Singapore and China share the cultural norm of filial piety, which emphasizes children's obedience to parents. While religiosity can discourage lying, particularly self-oriented lying, filial piety can justify parents' practice of self-oriented lying as a way to induce their children's compliance (Heyman et al., 2009). Consequently, surveying parents from Singapore presents an interesting comparison to Chinese and American parents (Heyman et al., 2013).

In the present study, we examined a series of parental lies by surveying young Singaporean adults about the lies they recalled their parents telling as a child (further described in the method section). Through this survey, we identified two new lie categories: superstitious lies and cheating lies. Superstitious lies are defined as lies told to influence behaviors that appeal to supernatural influences as justifications. In Singapore, superstitious lies are a part of the cultural tradition; for instance, the seventh lunar calendar month is regarded by the Chinese as the ghost month, where spirits, ghosts, and deceased ancestors visit the living realm. To demonstrate filial piety to departed ancestors, descendants make ritualistic offerings of food and burn incense and joss paper. Common advice given to children during this time is to avoid stepping on offerings scattered on the sides of pavements because it is rude to step on someone's food. Occasionally, the advice may come with a warning that something bad may happen if disobeyed (e.g., "Don't play hide and seek at night or the ghost will get you."). The category of supernatural lies has not been systematically examined in prior research, although specific instances have been reported in the early literature (Brown, 2002). The questionnaire does not rule out the possibility that parents could have actually believed in the superstitions and not viewed them as lies. This subcategory of parental lies is of particular interest due to its unique relationship with culture. Thus, specifically exploring how parents communicate about and use

superstitious lies as a means of behavioral control may have important implications for the development of children's explanatory beliefs (Busch et al., 2017).

Cheating lies, the other newly added lie category, are defined as lies in which a parent consciously engages in deceptive behavior to gain an advantage or to avoid an undesirable consequence in a situation. For example, a cheating lie might involve claiming that a child is younger than he or she actually is in order to save money at establishments that offer age-based discounts. Another example is lying about being in a hurry or being busy to avoid donating to canvassers who collect donations for charitable causes (a common occurrence in Singapore). Unlike instrumental lies and superstitious lies, which are told directly to the child, cheating lies involve parents' lying behaviors toward others in the presence of the child.

The primary goal of the present study was to examine the association between parental lying and religiosity. Extant research has suggested that religiosity may be associated with honesty (Arbel et al., 2014; Stavrova & Siegers, 2013; Ward & King, 2018). From a speech act perspective, the relationship between religiosity and the different types of parental lying should not be the same because each category of lies varies in its social functions. Although lying is generally discouraged in religious teachings, white lies may not be discouraged due to its prosocial nature (Bussey, 1999). Religions teach people to be kind to one another. Therefore, parents' white lie-telling may have a different relationship with religiosity when compared to other types of lie-telling, which are primarily self-oriented.

The second goal of the present study was to examine parental lying more broadly than cataloged by Heyman et al. (2013). That is, whereas previous work has narrowly focused on parents' direct communication with their children, this study aimed to investigate other forms of

parental lying such as cheating lies and superstitious lies. As is the case with instrumental lying to children, these forms of lying may shape children's beliefs about the extent to which lying is socially acceptable because children are witnesses of parents' lying behaviors and may inadvertently be teaching them that lying is an acceptable practice to engage in with others. This is consistent with the evidence suggesting that children learn a substantial amount of information through overheard conversation (Akhtar et al., 2001; Au et al., 2002; Phillips et al., 2012; Repacholi & Meltzoff, 2007; Setoh et al., 2020). It is also consistent with the theoretical framework emphasizing that children learn which behaviors are morally acceptable through observational learning (Bandura, 1977; Ma et al., 2018; Warneken & Orlins, 2015).

We generated two hypotheses based on the existing literature. First, Singaporean parents lie for various reasons, including to promote children's compliance (instrumental lies), to make others feel better (white lies), to convey cultural beliefs (superstitious lies), and to gain personal benefits (cheating lies). Secondly, in line with prior research (e.g., Stavrova & Siegers, 2013; Van Cappellen et al., 2016; Ward & King, 2018), religiosity is associated with parental lying in all categories except for white lies. Self-oriented lies are discouraged by religious teachings and are thus less likely to be used by parents with greater religiosity. Unlike the other three types of lies, white lies are other-oriented and are told with the intention to benefit the recipient. As such, parents with greater religiosity may refrain from telling only instrumental lies, superstitious lies, cheating lies, but not white lies. Thus, it was predicted that parents' telling instrumental lies, superstitious lies and cheating lies will be negatively related to their level of religiosity while parents' telling of white lies will have little to no relationship with their level of religiosity, after controlling for demographic variables.

Method

Participants

Participants included 52 Singaporean parents (57.7% mothers and 42.3% fathers). All participants were of Chinese ethnicity, and the average age was 37.59 years old (ranges from 23 to 60 years). Participants were recruited from a large-scale shopping event targeted at parents. Participants reported having an average of 2 children (ranges from 1 to 3) with an average age of 6.54 years old (ranges from 0 to 28 years, $SD = 6.50$). Among participants, 83% reported having a degree/diploma from post-secondary education, and 17% reported having a high school certificate or equivalent. The majority of participants did not indicate a religion (57.7%). Although Singapore is a highly religious nation, the participating parents were all Chinese and were mostly from younger age groups, which are known to have higher ratios of non-believers (Singapore Department of Statistics, 2010). The rest of the participants were either Christians (32.7%), Catholics (5.8%), Buddhists (1.9%), or Taoists (1.9%).

After consenting, participants completed the Singapore Parental Lying Scale, the Duke University Religion Index, and a short demographic survey. The study was approved by the research ethics committee of [masked for review].

Materials and Procedure

Development of the Singapore Parental Lying Scale. The Singapore Parental Lying Scale was developed by surveying Singaporean undergraduates about the types of lies that they recall their parents telling them throughout childhood. First, undergraduates were surveyed on their parents' use of instrumental and white lies from Heyman and colleagues' (2013) study, recalling whether their parents told them such lies as a child. Next, undergraduates were instructed to report additional parental lies that were not listed in the survey, but that they

remembered hearing as a child. Then, a coder identified and categorized the most commonly reported parental lies based on the content of the lies. Lastly, the newly identified items were added to the original set of instrumental lies by Heyman and colleagues (2013) to create a new and more culturally specific parental lying measure.

The Singapore Parental Lying Scale contained four lie categories: 1) instrumental lies, 2) white lies (i.e., lies told to benefit another; e.g., *“Your singing is great”* – when really it is not), 3) superstitious lies (lies involving supernatural causes as means of explanation; e.g., *“Don’t open an umbrella at home, otherwise something bad will happen.”*), and 4) cheating lies (lies performed for personal benefit; e.g., deceptive behaviors such as stealing from hotels). For the instrumental lies, there are five subcategories, including 1) lies related to eating (e.g., *“If you swallow a watermelon seed, it will grow into a watermelon in your stomach”*), 2) lies related to leaving/staying (e.g., *“If you don’t want to come with me, I will leave you here by yourself”* – when the parent has no intention of leaving the child behind), 3) lies related to misbehavior (e.g., *“If you don’t behave, I will call the police”* – when the parent has no intention to), 4) lies related to money (e.g., *“We don’t have enough money to buy you that toy”* – when family actually has money), and 5) lies related to encouraging or discouraging behaviors (e.g., *“If you use your phone too much, it will explode”*).

The final Singapore Parental Lying Scale consisted of 35 items, including 20 instrumental lie items, 5 white lie items, 5 superstitious lie items, and 5 cheating lie items. The new scale is culturally specific to the types of parental lies that Singaporean adults may recall during their childhood, see Table 1.

After reading each statement, participants were instructed to rate whether they have made a similar statement to their children. For each item, parents rated the statement “I have said something similar to my child” on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The lies in each category were averaged to compute a score that indicated parents’ overall confidence in telling a certain type of lie to their children (i.e., instrumental lies, white lies, superstitious lies, or cheating lies). Unlike previous research, we used a scale of confidence rather than letting parents indicate “yes” or “no” (Heyman et al., 2013). One of the challenges in measuring parental lying was that parents often were not sure how to respond when they have said something similar. Using a scale of confidence allowed differentiation between whether parents engaged in the different categories of lies or not. The overall reliability for this measure was .91, as assessed by Cronbach’s alpha. Reliabilities for the individual lie categories are presented in Table 1.

The Duke University Religion Index (DUREL). Participants also completed the DUREL (Koenig & Büssing, 2010), a five-item measure of religious involvement, which includes three dimensions of religiosity. The three dimensions of religiosity include: organizational religious activity (ORA; e.g., attending church or other forms of religious meetings), non-organizational religious activity (NORA; e.g., meditation and prayer), and intrinsic religiosity (IR; e.g., approach to life being guided by religious beliefs). Participants were asked to indicate the frequency of engaging in ORA and NORA on a scale of 1 (*never*) to 6 (*more than one time per week*). Similarly, participants recorded their responses to the three IR questions on a scale of 1 (*definitely not true*) to 5 (*definitely true*). The scores for each item were then summed to create a total religiosity score, with higher scores indicating greater religiosity.

Results

Preliminary Analysis

Scores on the Singapore Parental Lying Scale are presented in Table 1. To investigate differences between fathers' and mothers' responses on the parental lying scale and subscales, we conducted independent samples t-tests. The results indicated that there were no significant differences in fathers' and mothers' lying ($ps > .41$). We also computed the correlations between the pre-existing instrumental lie category (Heyman et al., 2013) with the newly added lie categories (i.e., superstitious lies, and cheating lies). As shown in Table 2, the results indicated that instrumental lies were positively correlated with white lies ($r = 0.45, p < .001$), superstitious lies ($r = 0.61, p < .001$), and cheating lies ($r = 0.47, p < .001$). We also found significant positive correlations between white lies and superstitious lies ($r = 0.44, p = .001$), as well as between superstitious lies and cheating lies ($r = 0.43, p = .002$). Interestingly, we did not find a significant correlation between white lies and cheating lies ($r = 0.21, p = .137$).

Prevalence of Parental Lying

The first goal of this study was to explore parental lying by examining the prevalence of instrumental lies, white lies, superstitious lies, and cheating lies. For each lie, a response of “*Agree*” or “*Strongly agree*” indicated that the parent could confidently recall telling the lie. Out of the four lie categories, we found that 100% of parents could confidently recall telling instrumental lies, 67% could confidently recall telling superstitious lies, 83% could confidently recall telling cheating lies, and 83% could confidently recall telling white lies. More specifically, within the instrumental lie category, Singaporean parents were most likely to tell “lies related to staying or leaving” (reported by 94% of parents), followed closely by “lies related to

encouraging or discouraging behavior” (92%), “lies related to eating” (88%), “lies related to spending money” (77%), and “lies related to misbehavior” (71%).

Religiosity and Parental Lying

The main goal of the current study was to investigate whether religiosity was associated with parental lying. Hierarchical regression models were conducted with religiosity and demographic factors (parents’ gender, parents’ age, number of children, the age of the oldest child, and education level) as predictors and each lie category as the outcome variable. To predict whether parents told lies in each of the lie categories, a series of four hierarchical multiple regressions (i.e., one regression model computed for each of the four lie categories) were performed. For all of the models, lying in each of the four lie categories was entered separately as the dependent variable, and the various predictors were entered into the model in two steps. Specifically, demographic variables were entered into the first step, including parents’ gender, parents’ age, education level, the number of children the parent had, and the oldest child’s age. The religiosity score was entered into the second step of the model. As predicted, religiosity emerged as a significant predictor of parental lying. More specifically, parents’ religiosity was negatively related to all forms of parental lies except for white lies. That is, higher levels of religiosity were associated with less use of instrumental lies, superstitious lies, and cheating lies. Across the four regression models, demographic factors did not predict parents’ telling of instrumental, white or cheating lies. However, parents’ gender and education level were related to superstitious lying. Table 3 provides a summary of results from the hierarchical multiple regression analyses. Detailed results are discussed in the following sections.

Instrumental Lies. A hierarchical multiple regression was first conducted to predict instrumental lies. As shown in Table 3, the first model (step 1) was non-significant, suggesting that the demographic variables did not predict instrumental lies, $R^2 = 0.12$, $F(5, 44) = 1.23$, $p = .313$. However, after adding religiosity into the model (step 2), $R^2 = 0.31$, $\Delta R^2 = 0.19$, $\Delta F(1, 43) = 11.81$, $p = .001$, we found that religiosity significantly predicted 19% of the unique variance in instrumental lies. Religiosity was negatively related to instrumental lies, suggesting that parents who reported greater religiosity were less likely to report telling instrumental lies to their child(ren), $\beta = -0.49$, $t = -3.44$, $p = .001$.

White Lies. Next, we conducted a hierarchical multiple regression to predict white lies. Overall, the first and second models were non-significant, $R^2 = 0.05$, $F(5, 44) = 0.43$, $p = .822$ and $R^2 = 0.11$, $\Delta R^2 = 0.06$, $\Delta F(1, 43) = 2.78$, $p = .103$, respectively. That is, parents' gender, parents' age, education level, number of children, and age of the oldest child, as well as their religiosity were not predictive of parents' likelihood of telling white lies.

Superstitious Lies. A third hierarchical multiple regression model was conducted to predict superstitious lies. The first model was significant, $R^2 = 0.30$, $F(5, 44) = 3.85$, $p = .006$. More specifically, parents' education level significantly predicted superstitious lies, $\beta = -0.48$, $t = -3.48$, $p = .001$; no other variables in the first step were significant. The second model with religiosity was also significant, $R^2 = 0.41$, $\Delta R^2 = 0.11$, $\Delta F(1, 43) = 8.05$, $p = .007$. Religiosity explained 11% of the unique variance in superstitious lies. In this final model, religiosity ($\beta = -0.37$, $t = -2.84$, $p = .007$), parents' gender ($\beta = -0.28$, $t = -2.09$, $p = .043$), and education level ($\beta = -0.38$, $t = -2.89$, $p = .006$), emerged as significant predictors of superstitious lies. None of the other predictors were significant in the second model. These results suggest that parents with lower religiosity and education levels were more likely to tell superstitious lies to their children,

and fathers were more likely than mothers to tell superstitious lies, after controlling for other demographic variables.

Cheating Lies. The final hierarchical multiple regression model explored predictors associated with cheating lies. The first model was non-significant, suggesting that the demographic variables did not account for a significant portion of variance in cheating lies, $R^2 = 0.05$, $F(5, 44) = 0.42$, $p = .832$. However, adding religiosity into the model revealed a significant association between religiosity and cheating lies, explaining 16% of the unique variance in cheating lies, $R^2 = 0.21$, $\Delta R^2 = 0.16$, $\Delta F(1, 43) = 8.88$, $p = .005$. More specifically, we found a negative association between religiosity and cheating lies, indicating that higher scores of religiosity were associated with reduced use of cheating lies, $\beta = -0.46$, $t = -2.98$, $p = .005$.

Discussion

The overall purpose of this study was to expand upon the limited research on parental lying by investigating how different kinds of parental lies are related to parents' religiosity. We aimed to use the data from this study to help expand on the research on parental socialization and the influence of religion in an Asian sample.

We found that parental lying was commonly used by Singaporean parents. We also found evidence of two new categories of parental lying that have not previously been targeted in research on this topic (i.e., superstitious lies and cheating lies), and these newly identified lies were highly positively correlated with instrumental lies. Parents' religiosity predicted lower parental lying in the instrumental lies, superstitious lies, and cheating lies categories, but no significant relation was found between religiosity and white lies.

Our findings revealed that almost all Singaporean parents lied to their children as a way of influencing their child's behavioral and emotional states. These results were consistent with the findings from Heyman and colleagues (2013), who found that parents in the U.S. and China frequently engage in parental lying through instrumental lie-telling (84% of U.S. parents and 98% of Chinese parents). Also consistent with findings by Heyman et al. (2013), the most common type of instrumental lying in the present study was related to leaving or staying, where parents lie to their child about leaving them if he/she does not follow the parent. Perhaps, issuing a verbal threat is an immediate way of helping a child to think about concepts such as reinforcement and punishment without actually having to mete out the consequences. This is consistent with theoretical perspectives which suggest that children learn not only through the occurrence of consequences, but also through observation and verbal responses from others (Gewirtz & Pelaez-Nogueras, 1991). Therefore, parents were more likely to tell leaving or staying lies because of its immediate effectiveness in promoting children's behavioral compliance.

We also found a significant positive correlation between instrumental lie-telling and the other categories of lies. One possible explanation for this finding may be that parents who used instrumental lies to control their child's behavior have experienced that lie-telling to be an effective way to obtain compliance from their children, and thus may consequently be more likely to use other forms of lying. It is also possible that parents who used instrumental lies found this specific category of lies to be less morally problematic, and thus may also find other lies less morally problematic.

Our findings also revealed that Singaporean parents told white lies, superstitious lies, and cheating lies to their children. White lie-telling was reported by 83% of the parents. Heyman et

al. (2013) found that Chinese parents told white lies more often than U.S. parents. Additionally, Heyman et al. (2013) also found that Chinese parents exhibited a high propensity to use white lies to promote their children's positive feelings, which is consistent with the results from our study. White lies can be used to facilitate social harmony among the group (Bond, 1986). In the Singapore context, telling benign white lies such as, "your new hairstyle looks great!" may improve relationship cohesiveness and agreement with others, which are relational goals important in the Chinese culture (Greenfield & Cocking, 1994; Bond, 1986).

Given that Singapore is a multiracial and multi-religious society, there are many superstitions and folklore tales associated with different cultural beliefs. Such lies may transmit values and serve as a strategy to frighten children into behaving in accordance to the caregivers' wishes (Brown, 2002). We also found that less-educated parents also reported telling more superstitious lies to their children. This is consistent with findings suggesting that people with lower education levels tend to more readily believe in superstitions (Mullick et al., 2013). It is possible that less-educated parents' personal belief in superstitions influenced how they shape their children's behaviors.

With respect to superstitious lies, we also found that fathers reported telling more superstitious lies to their children. Because this was the first time that a significant mother-father difference was found regarding parental lying, additional research is needed to ascertain whether this is a spurious finding. Alternatively, Singaporean fathers may be more superstitious than Singaporean mothers because similar gender differences have also been observed in other cultures; for example, a study of Canadian athletes found higher rates of superstition among males than females (Neil et al., 1981).

The prevalence of cheating behavior is consistent with findings across the world, showing that people lie as a means of gaining small positive consequences or avoiding small negative consequences (e.g., DePaulo et al., 1996; Evans & Lee, 2013; Shu & Gino, 2012). The prevalent usage of cheating lies may be viewed as trivial to parents, and thus, parents may use cheating lies without thinking of themselves as liars (DePaulo et al., 1996; Mazar et al., 2008).

Interestingly, we found that religiosity was negatively associated with telling of self-oriented lies. That is, the more religious parents are, the less likely they recalled telling instrumental lies, cheating lies, and superstitious lies to their children. The doctrines of many religions disapprove of lying, which may be why parents in Singapore who reported being high in religiosity were less likely to tell instrumental, cheating, and superstitious lies. This departs from the findings by Heyman and colleagues (2013), where no significant relation was found between parental lying and religiosity among U.S. and Chinese parents. One possible explanation for this discrepancy could be the difference in the measurement of religiosity between samples. The current study used a more detailed measure of religiosity than Heyman et al.'s (2013) study. Another possible explanation for the negative correlation between religiosity and self-oriented parental lying in our study is that parents with greater religiosity used alternative ways to discipline children. This possibility is consistent with findings from the U.S., which showed that religiosity was positively associated with a more authoritative parenting approach, which focused on reasoning instead of using threats (Gunnoe et al., 1999). It is also possible that parents with greater religiosity remember their lying behaviors differently rather than telling fewer self-oriented lies.

Prior research has yielded inconsistent findings on the relationship between moral beliefs and lying behaviors, and the current findings help to address this issue. While some studies have

shown an alignment between individuals' moral beliefs and levels of honesty (Stavrova & Siegers, 2013; Ward & King, 2018), other studies suggested that moral beliefs do not necessarily predict actual lying behaviors (Talwar et al., 2002). However, whether there is or is not such an alignment is likely to depend on the population tested, and on the specific beliefs and behaviors in question. These factors have varied substantially in prior research. In the present study, religiosity was measured as an indicator of people's motivation toward adhering to religious teachings. The results pointed to the possibility that the extent to which individuals internalize and adhere to those principles is related to the use of lying. Future research should examine the difference between internalization and awareness of moral values in promoting honesty, as well as the possible mediating role of religiosity in these processes.

Among the four categories of parental lies, white lie telling was the only lie category not associated with parents' level of religiosity. This is consistent with how the intent of white lies is different from instrumental, superstitious, and cheating lies. White lies are other-oriented, told to promote good feelings in others, and are typically prosocial in nature (Cheung et al., 2015; Lee, 2013). In prior studies, white lies were rated as less negative than self-oriented lies (Bussey, 1999; Cheung et al., 2015). Therefore, being religious may not be at odds with white lie telling.

Limitations and Future Directions

While the findings within this paper are novel and significantly contribute to the limited field of research on this topic, there are some limitations that should be addressed in future research. One limitation is the relatively small sample size, and the fact that we did not restrict the age range of parents or the ages of their children during recruitment. Arguably, parenting behaviors vary based on children's age, and therefore the wide age range of the current sample

may have confounded the findings. However, we did not observe any effect of age in the regressions. In addition, after excluding parents with adult children (i.e., children above 18-years-old) from the analyses, the findings still held.

Additionally, the Singapore Parental Lying Scale did not assess parents' intentions for lying. When parents told superstitious lies, it was possible that parents did not intend to deceive, but rather to convey cultural beliefs to their children. The validity of the scale can be improved by measuring the rationales and intentions underlying each lie, as well as how frequently parents tell different lie types. Moreover, since culture is influential in shaping people's views, cross-cultural investigations will be required to examine how parents from different cultures interpret and evaluate lying (Setoh et al., 2015).

Another limitation of the present research is the sole reliance on parents' self-report, which may have inflated the covariances between the different categories of lies. Therefore, future research should aim to incorporate additional methods of assessing parental lying, and religiosity. Future studies would also benefit from adopting diary studies to obtain a more detailed record of parents' religious participation. In the analysis, we did not differentiate between different kinds of religions due to lack of power. Future studies should examine whether parents' lie-telling behaviors differ based on religious beliefs.

The present findings raise important questions about the moderating role of parents and children's religiosity in parental lying. Perceived parental religiosity is related to better adjustment among emerging adults (Power & McKinney, 2013), and previous studies have found links between parental religiosity, parenting practices, and subsequent psychological adjustment in children (Weyand et al., 2013). In contrast, parental lying has been found to have negative

implications on children's psychosocial development (Santos et al., 2017; Setoh et al., 2020). Thus, religiosity and parental lying may interact to influence children's outcomes.

Furthermore, another possible direction for future research is to understand the implications of parental lying on children's moral development. From a parent socialization perspective, parents are socialization agents that model moral behaviors for their children (Bandura, 1977; Grusec & Davido, 2010). Children, through observational learning, imitate their parents' behaviors and evaluate the social consequences of such behaviors (Engarhos et al., 2019; Ma et al., 2018). As children age, they become increasingly skilled at anticipating costs of truth- versus lie-telling (Ma et al., 2011). If children observe parents lying and successfully gained personal advantages, they too may engage in lying behaviors.

Lastly, the influence of parental lying on the development of children's self-regulation should be explored. Given that parental lying influences a child's behavior through extrinsic (as opposed to intrinsic) means, it is possible that exposure to parental lying may impede a child's ability to develop critical self-regulation skills such as emotion regulation and problem-solving (Grolnick & Farkas, 2002; Kearney & Bussey, 2015). This possibility is consistent with work by Baumrind (1971), which suggests that authoritarian parenting may be correlated with a child's lack of self-reliance and initiative, which in turn leads to lower self-regulation. For example, when a child regulates his/her behavior because of external reward or punishment, this external motivation could lead to lower levels of autonomous reasoning as the child lacks a sense of personal volition (Grolnick & Farkas, 2002). As a result, the child may not be able to comply with parents' expectations of good behavior when the external motivation is removed and the child is left to reason on their own (Baumrind, 1991). Additionally, this lack of autonomy may

be associated with poor emotional self-regulation as the child's self-regulation has been dependent on external sources – such as parents (Grolnick et al., 1996).

Conclusion

The current study extends the limited body of research on the relationship between parental lying and religiosity by investigating four types of lies told by Singaporean parents. In doing so, we provide insight into the cultural variation in the relationship between parental lying and religiosity. We found that, in contrast to Chinese and American parents (Heyman et al., 2013), greater religiosity among Singaporean parents is related to less lying to children, with the exception of white lies. This pattern of findings suggests that the effect of religiosity on parental lying may be culturally and religion-specific. Additionally, the results provide insight into which types of lies are used in a wide range of cultures. For example, consistent with findings from China and the U.S. (Heyman et al., 2013), the engagement in parental lying as a strategy for behavioral compliance is also common for Singaporean parents, especially engaging in lies related to leaving or staying. Such findings provide insights into parenting practices that are near-universal, as well as to the kinds of experiences that are likely to influence children as they figure out whether lying is ever acceptable.

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Table 1

Items from the Singapore Parental Lying Scale

Category	<i>M</i>	<i>SD</i>
Instrumental Lies (.87)	3.02	0.67
<i>Eating</i>	2.86	0.87
“If you swallow a seed, it will grow into a watermelon in your stomach.”*	2.08	1.27
“Finish all your food or you’ll grow up to be short.”*	2.73	1.52
Parent refuses to give candy to the child by saying “There’s no more candy in the house.” (Even though there actually is)*	3.31	1.35
“If you don’t finish your rice, your future spouse will be pimply.”*	2.94	1.36
“If you don’t eat vegetables, you won’t have a nice complexion.”	3.24	1.29
<i>Staying or leaving</i>	3.69	0.82
“If you don’t want to come with me, I will leave you here by yourself.” (When parent has no intention of leaving child behind)*	3.98	0.90
“If you don’t hold my hand, a kidnapper will come to kidnap you while I’m gone.”*	3.71	1.18
Telling your child “we’re reaching soon.” (Even though there is still a long way to go)	3.38	1.16
<i>Misbehavior</i>	2.62	1.02
“If you don’t quiet down and start behaving, the lady over there will be angry with you.” (It is clear that the lady wouldn’t care)*	3.38	1.19

“If you don’t behave, I will call the police.” (When parent has no intention to)*	2.73	1.32
“If you throw a tantrum, I will put you in jail.” (When parent has no intention to)	2.02	1.06
“If you are naughty, I will sell you away.” (When parent has no intention to)	2.35	1.33
<i>Spending Money</i>	3.14	1.07
“We don’t have enough money to buy you that toy.” (When family has plenty of money)*	3.35	1.15
A child wants to buy candy and his mother says, “There is no candy in this store.” (when it’s not true)*	2.96	1.33
“I did not bring money with me today. We can come back another day.” (When the parent has money and has no intention to go back)*	3.12	1.32
<i>Encourage or discourage behavior</i>	3.03	0.72
“Study hard, get good grades, and we will reward you.” (When parent may not reward the good grades later on)	3.33	1.37
“Jumping makes you grow taller.” (When it is not true)	3.62	0.91
“If you use the phone too much, it’ll explode.” (When it is not true)	2.90	1.32
“If you do this to your mom/dad, your child will do the exact thing to you when you have children of your own.”	3.29	1.27
Telling your child “we picked you up from the garbage can” (When it’s not true)	2.04	1.19
Superstitious lies (.87)	2.43	1.03

“Don’t play hide and seek at night or the ghost will get you.” (When it is not true)	2.23	1.25
“During the 7 th lunar month, do not step on offerings.”	3.50	1.41
“If you cut your fingernails at night you will end up afraid of the dark.”	2.00	1.12
“If you take a picture of someone when they are sleeping, their spirit will not return to their body.”	2.02	1.21
“Don’t open umbrella at home, otherwise something bad will happen.”	2.40	1.36
Cheating lies (.82)	2.97	0.92
Bargain for cheaper prices.	3.71	1.09
Lying about being busy (e.g., refusing to donate to canvassers by saying you are in a hurry).	3.25	1.17
Lying about their child’s age for a cheaper ticket.	2.29	1.26
Stealing from hotels.	2.25	1.30
Pretending nobody is at home when salespeople come.	3.37	1.17
White lies (.61)	2.87	0.73
“That was beautiful piano playing.” (When the playing was terrible)	3.15	1.20
“It’s not your fault that the plate broke. It broke because it was too old.” (When child accidentally drops a dish)	2.15	1.06
“You are better compared to another person.” (When parent does not mean it)	2.67	1.29
“This hairstyle looks good on you.” (When it does not)	3.52	1.04
Telling mother-in-law “your cooking is delicious!” (When her cooking tastes bad)	2.83	1.22

Note. Items with an asterisk are adapted from Heyman et al.'s (2013) study. The rest of the items were developed from the current study to suit the Singaporean context. Cronbach alpha values are stated in parentheses. The recipient of parental lies varies based on the category of lie.

Instrumental lies and superstitious lies were told directly to the child. Cheating lies were told to others in the presence of the child. White lies were either told to the child or told to others in the presence of the child.

Table 2

Pairwise Correlations between Different Categories of Lies (N=52)

	Instrumental lies	White lies	Superstitious lies	Cheating lies
Instrumental lies	—	.45***	.61***	.47***
White lies	—	—	.44**	.21
Superstitious lies	—	—	—	.43**
Cheating lies	—	—	—	—

Note. ** $p < .01$, *** $p < .001$.

Table 3

Summary of the Four Hierarchical Regressions Predicting the Different Categories of Lies (N=50)

	Instrumental Lies			White Lies			Superstitious Lies			Cheating Lies		
	β	t	p	β	t	p	β	t	p	β	t	p
Step 1												
Age	-0.36	-1.23	.227	-0.16	-0.54	.595	-0.40	-1.55	.128	0.02	0.06	.957
Gender	-0.05	-0.29	.775	-0.18	-1.06	.297	-0.24	-1.69	.099	0.07	0.40	.695
Number of children	0.17	0.87	.388	-0.09	-0.45	.654	0.12	0.72	.475	0.08	0.41	.688
Oldest child's age	0.10	0.30	.765	0.04	0.12	.907	-0.08	-0.29	.776	-0.26	-0.78	.440
Education level	-0.29	-1.90	.064	-0.11	-0.70	.489	-0.48	-3.48	.001	0.00	0.02	.986
R^2		0.12			0.05			0.30			0.05	
F for R^2		1.23			0.43			3.85			0.42	
p for R^2		.313			.822			.006**			.832	
Step 2												
Age	-0.27	-1.04	.302	-0.12	-0.39	.698	-0.34	-1.40	.168	0.09	0.33	.740
Gender	-0.10	-0.66	.514	-0.21	-1.24	.223	-0.28	-2.09	.043	0.02	0.13	.894
Number of children	0.12	0.72	.477	-0.11	-0.58	.564	0.09	0.57	.575	0.04	0.22	.828
Oldest child's age	0.24	0.82	.415	0.12	0.36	.724	0.03	0.10	.921	-0.13	-0.41	.682
Education level	-0.17	-1.16	.253	-0.04	-0.26	.798	-0.38	-2.89	.006	0.12	0.79	.435
Religiosity	-0.49	-3.44	.001	-0.27	-1.67	.103	-0.37	-2.84	.007	-0.46	-2.98	.005
R^2		0.31			0.11			0.41			0.21	
ΔR^2		0.19			0.06			0.11			0.16	
F for ΔR^2		11.81			2.78			8.05			8.88	
p for ΔR^2		.001**			.103			.007**			.005**	

Note. In each hierarchical regression model, one type of parental lying was the outcome variable. For all the regressions, demographic variables were entered into the model as predictors in the first step. Religiosity was added to the model in the second step. ** $p < .01$. Statistically significant predictors are in bold.