



THE ROLE OF PARENTING PRACTICES IN CHILDREN'S ANTISOCIAL LYING: A SYSTEMATIC REVIEW

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Objetivo: El objetivo principal del presente trabajo es identificar los estilos o prácticas de crianza asociados al desarrollo de la mentira antisocial en niños y adolescentes. **Metodología:** Se realizó una revisión sistemática mediante el nuevo protocolo PRISMA donde se analizaron exhaustivamente trece estudios seleccionados. **Resultados:** Los estilos de crianza agresivos o caracterizados por una supervisión parental deficiente se relacionaban con un mayor nivel de mentiras antisociales. Se encontraron resultados inconsistentes en cuanto a la influencia de las prácticas de sinceridad/mentira en el comportamiento mentiroso entre el contexto de laboratorio y el natural. **Conclusiones:** La conducta mentirosa infantil de carácter antisocial se relaciona con una peor adaptación de los menores a la sociedad, por lo que es importante su prevención a través de prácticas de crianza apropiadas.

Palabras clave: Mentira antisocial, Desarrollo, Prácticas de crianza, Revisión sistemática, PRISMA, Teoría de la mente y estilos de crianza.

Objective: The main objective of the present work is to identify parenting styles or practices associated with the development of antisocial lying in children and adolescents. **Methodology:** A systematic review was carried out using the new PRISMA protocol in which the thirteen studies selected were exhaustively analyzed. **Results:** Aggressive parenting style and poor parental supervision were related to a greater number of antisocial lies. Inconsistent results were found regarding the influence of honesty/dishonesty practices on lying behavior between the laboratory and natural contexts. **Conclusions:** Antisocial lying behavior is related to a worse adaptation of children to society. Thus, its prevention through positive parenting practices is of crucial importance.

Key words: Antisocial lying, Development, Parenting practices, Systematic review, PRISMA, Theory of mind, And parenting styles.

The family is a system of diverse structure, the origin of the social interactions of each individual. Through these interactions, the individual is able to consolidate several components of the personality and behavior that promote or do not promote their optimal development at the cognitive, moral, and social levels (González, 2008). Within the spectrum of behaviors that develop in the family, this article will focus on lying, specifically that of the most antisocial kind.

Lying is of great importance in the development of children's morality and can have negative consequences in interpersonal relationships. For example, it may lead to distrust in caregivers and a progressive worsening of communication. In addition, the study of the development of this behavior has broader implications, such as a better understanding of social development. Despite the importance of this behavior, few studies have focused on childhood and adolescence. It has only been studied extensively in legal settings and in connection with sexual abuse, but not in everyday contexts such as the family itself, where it may have repercussions in primary and secondary interpersonal interactions in the future.

In this paper, antisocial lying is defined as "the deliberate attempt, whether successful or not, to conceal, fabricate, and/or manipulate in any other way, factual and/or emotional information, by verbal and/or nonverbal means, in order to create or maintain in another or others a belief that the communicator himself or herself considers false" (p. 147) (Masip, Garrido, & Herrero, 2004). This definition includes three basic characteristics that are typical of this behavior in our species (Coleman & Kay, 1981): falsity, awareness, and intentionality. The information provided is false, i.e., the proposition contains incorrect information. In addition, the communicator is aware of the falsity of the information, and his/her intention is to deceive the receiver. The antisocial lie has more negative consequences than what are known as white or prosocial lies, which are taught to children in order to avoid direct and forceful opinions that may hurt other people's feelings (Talwar, Murphy, & Lee, 2007).

OBJECTIVES OF THE STUDY

Given the importance of antisocial lying in the cognitive and social development of children and taking into account that parenting practices or parental styles may influence the development and maintenance of lying in children, one of the objectives of this paper is to present the theoretical models that explain the development of antisocial lying and the influence of parenting practices in the adaptation of children and

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adolescents, based on a narrative review. However, the main objective of this work is to identify the parenting practices that promote the development of antisocial lying in children and adolescents in everyday situations, through a systematic review using the PRISMA protocol.

Theoretical models on the cognitive development of antisocial lying

Within cognitive development there is consensus that the age of onset of the development of antisocial lying is around 3 years of age, and it develops rapidly during the preschool years, leading to an evolution of its complexity that progresses with age, as well as an increase during early childhood (Talwar & Lee, 2002, 2008). This increase subsequently decreases as adolescence approaches, when lies are presented in a more sophisticated way and through concealment (Evans & Lee, 2011). In research based on the temptation resistance paradigm, it was observed that participants older than 3 years generally lied, but only 50% of 3-year-old participants did so (Talwar & Lee, 2002). These results were similar to those found by Lewis, Stranger, and Sullivan (1989) with the same paradigm and even using other paradigms such as Peskin's (1992) competitive games paradigm.

The emergence of this lying behavior involves both the development of linguistic ability and theory of mind (ToM) (Camacho, 2005). Regarding the development of linguistic ability, there is research (Lewis et al., 1989) that examines the ability of children to hide their nonverbal and verbal language when lying. These studies conclude that children have a strong ability to manipulate their nonverbal language, resulting in most adults not being able to distinguish when children are lying or not (Talwar & Lee, 2002). In addition, it has been perceived that when children under 8 years of age lie, they give an explanation of the lying response in which they tend to increase both their positive and negative expressive behavior. Also, as children's age increases, their manner of concealing the lie shifts from exaggerated expressions to feigning ignorance and not answering questions about the lie, as a new concealment strategy following denial of a transgression they have committed (Talwar, Gordon, & Lee, 2007).

On the other hand, ToM is the ability to attribute mental states to ourselves and others (Woodruff & Premack, 1978). The developmental role of ToM is another important milestone involved in this behavior, sometimes studied as a module in which several skills converge, which develop with increasing age and cognitive abilities (Camacho, 2005). The assessment of this ability has been measured by means of the false belief task that determined the understanding of first-order beliefs (differentiation between one's own and others' mental states, and some awareness of the ability of other organisms to have mental states of belief), and second-order beliefs (children's ability to attribute false beliefs to others) (Wimmer & Perner, 1983). Children's prosocial lies have been found to be associated with greater ToM capacity than antisocial lies

(Lavoie, Yachison, Crossman, & Talwar (2017). Therefore, the strategy of feigning ignorance is directly related to the understanding of second-order beliefs (Talwar, Gordon, et al., 2007), since children who have lower scores on second-order beliefs are also worse at pretending and vice versa, thus showing the relationship between verbal control of lies and the development of ToM. However, the ability to regulate nonverbal expression in relation to lying is not related to the understanding of second-order beliefs and could be the reason that this ability is an earlier developmental milestone, which is related to the understanding of first-order beliefs (Talwar, Murphy et al., 2007).

One of the theories that provides the best perspective for understanding the findings on the development of lying in children is the speech act theory by Austin (1962), which states that verbal statements are not mere descriptions of states of affairs, but actions carried out intentionally to fulfill social functions. Thus, speech acts involve doing things with words that serve as tools, i.e., lying would be doing deceptive things with words. Moreover, like any form of speech act, lying is governed by the components of intentionality and conventionality. Therefore, it is important to be able to control both components in order to lie and to lie well. The former refers to the mental states involved in speech, closely related to the development of theory of mind, while the latter refers to the social rules governing conversation mediated by different cultures. With age, both competencies develop, and people become better able to lie. This will be influenced by the optimal development of their cognitive abilities and, on the other hand, and in a very relevant way, by the internalization of their own culture and the social rules learned, mainly in the context of the family (Lee, 2013).

Parenting styles and adaptation of children

Parenting styles and caregiving practices can influence an individual's development from birth and should be explored in relation to children's behavioral problems. Several studies have found that inappropriate parenting practices are predictive of a worse overall well-being of the child (Darling, 1999). Therefore, it seems logical to think that lying may be related to unsuitable parenting styles.

Baumrind (1991) proposed the classification of three parenting styles: authoritative, authoritarian/disciplinarian, and permissive/indulgent; and later Maccoby and Martin (1983) added the fourth style: uninvolved/neglectful. On the one hand, the results of various studies (Jorge & Gonzalez, 2017; Weiss & Schwarz, 1996) show how children whose parents exercised an authoritative parenting style have been rated as more competent both socially and instrumentally. Although some authors have indicated that the most suitable parenting style may vary depending on the cultural context (García & Gracia, 2010; Kotchick & Forehand, 2002). On the other hand, children whose parents have not been involved in parenting, as corresponds to the most neglectful parenting style, are those who show the worst performance in the different



developmental domains. In most cases, in those styles or practices where parental warmth predominates, social competence and prosocial behaviors prevail in the development of children, while demand and control are predictors of an increase in instrumental competence and behavioral control, sometimes lacking quality in social interactions (Jorge & Gonzalez, 2017).

METHOD

A systematic review was carried out, applying the new PRISMA protocol, to determine the integrity and transparency of the systematic review incorporating new conceptual and methodological aspects. This objective was reached by achieving 27 items and following the protocol guidelines (Preferred reporting elements for systematic reviews and meta-analyses) (Urrútia & Bonfill, 2010).

Search strategy

To identify all of the publications potentially relevant to the objective of the review, we systematically searched the major

databases in the field of psychology. The final literature search was conducted in December 2020, using the electronic databases Scopus (considered the largest citation and abstract database of peer-reviewed literature), Web of Science (the largest multidisciplinary platform with high-quality studies), and PsycInfo (considered the most comprehensive resource in behavioral sciences and mental health). The systematic search was performed based on publications from 1890 to 2020, including scientific articles, book chapters, and books. At this stage, the existence of publication biases could be indicated in terms of papers presented at congresses, and in terms of publications found outside the databases. The search terms used for lying were 12: «lie», «lies», «deception», «dishonesty», «falsehood», «untruth», «deceit», «mendacity», «fib», «flam», «disclosure», and «secrecy». However, 17 terms were used for parenting practices or styles: «parenting», «parenting style», «parenting practices», «child rearing», «child», «children», «kid», «kids», «infant», «minors», «minor», «teen», «teens», «teenager», «teenagers», «adolescent», and «adolescents». In addition, the references of the selected articles were reviewed, with a total of 2,284 results being obtained as presented in Table 1.

Data extraction

After the search, all the references were exported to the RefWorks bibliographic manager where duplicates were eliminated. Subsequently, the data were managed in an Excel file where the first selection was made. This Excel file can be requested from the authors. The information exported to Excel for each publication includes the following fields: type of publication (article, book, etc.), authors, title, abstract, journal, year of publication, DOI, links, and database.

Study selection and eligibility criteria

The first selection was made by reading titles and abstracts, opting for studies that potentially seemed to be of interest and excluding those that were not in English and Spanish. Subsequently, eligible articles were identified by reviewing full texts using exclusion and inclusion criteria. The inclusion criteria used refer to studies assessing the relationship between parenting styles or practices and antisocial lying in children or adolescents (2-18 years) and articles published in English or Spanish. Therefore, the exclusion criteria refer to publications in languages other than English or Spanish, theoretical reviews, meta-analyses, systematic reviews, non-experimental studies, articles on instruments or programs, and studies in which quantitative data were not collected. We also considered the exclusion of articles that worked with a non-normative population or where the relationship with lying was mediated by specific cases such as diseases, and primarily studies that did not examine the relationship between parenting styles or practices and lying in children and adolescents and where the type of lying studied in the relationship did not include antisocial lies (see Figure 1).

**TABLE 1
DESCRIPTION OF THE SEARCH STRATEGY
(DECEMBER 9, 2020)**

Delimitation of the search	Results
<p>SCOPUS TITLE-ABS-KEY («lie»OR«lies»OR«falsehood»OR«untruth»OR«deceit»OR«mendacity»OR«deception»OR«dishonesty»OR«fib»OR«flam»OR«disclosure»OR«secrecy») AND TITLE-ABS-KEY («parenting»OR«parenting style»OR«parenting practices»OR«child rearing») AND TITLE-ABS-KEY («child»OR«children»OR«kid»OR«kids»OR«infant»OR«minors»OR«minor»OR«teen»OR«teens»OR«teenager»OR«teenagers»OR«adolescent»OR«adolescents»)</p>	682
<p>WEB OF SCIENCE TOPIC:«lie»OR«lies»OR«falsehood»OR«untruth»OR«deceit»OR«mendacity»OR«deception»OR«dishonesty»OR«fib»OR«flam»OR«disclosure»OR«secrecy» AND TOPIC: «parenting»OR«parenting styles»OR«parenting practices»OR«child rearing» AND TOPIC: «child»OR«children»OR«kid»OR«kids»OR«infant»OR«minors»OR«minor»OR«teens»OR«teenager»OR«teenagers»OR«adolescent»OR«adolescents»</p>	755
<p>PSYCIINFO («lie»OR«lies»OR«falsehood»OR«untruth»OR«deceit»OR«mendacity»OR«deception»OR«dishonesty»OR«fib»OR«flam»OR«disclosure»OR«secrecy») AND («parenting»OR«parenting styles»OR«parenting practices»OR«child rearing») AND («child»OR«children»OR«kid»OR«kids»OR«infant»OR«minors»OR«minor»OR«teens»OR«teenager»OR«teenagers»OR«adolescent»OR«adolescents»)</p>	846
Total searches	2,284



RESULTS

After the selection made on the basis of the inclusion and exclusion criteria shown in Figure 1, we obtained 13 studies that had in common the analysis of relationships between parenting practices or parenting styles and the antisocial lying behavior of minor children. The main characteristics of the 13 studies are presented in Table 2. The Results column shows the empirical evidence of the selected studies regarding the relationship between parenting practices and lying behavior of children. The results found are contradictory, perhaps due to the variety of paradigms applied, instruments used, different contexts, or the age of the children and adolescents.

Regarding the relationship of lying with parenting styles, some studies have observed that lying behavior is positively related to aggressive discipline (Mojdehi, Shohoudi, & Talwar, 2020; Waller et al., 2012) and to the authoritative parenting style (Lavoie, Wyman, Crossman, & Talwar, 2018; Talwar, Lavoie, Gomez-Garibello, & Crossman, 2017). However, Talwar, Lavoie, and Crossman (2019) found no significant relationship between parenting practices and antisocial lying.

Another relevant finding refers to the positive relationship between autonomy-supportive parenting and voluntary disclosure of information, and inversely with secrecy. Higher child autonomy support is associated with a lower level of recording lies (Baudat, Van Petegem, Antonietti, & Zimmermann, 2020; Cumsille, Darling, & Martinez, 2010). These results are in line with those found by Bureau and Mageau, (2014), where autonomy practices were related to the value of sincerity for minors. In addition, Cumsille et al. (2010) found that lying was associated with parent-child relationships characterized by low warmth and lack of communication. Ma, Evans, Liu, Luo, and Xu (2015) found that parental control was related to lower lying. Similarly, Stouthamer-Loeber and Loeber (1986) found that low level of supervision and discipline was related to higher lying as well as emotional rejection by parents. These results are consistent with the findings of Cumsille et al. (2010) on the lack of warmth in parent-child relationships and lying behavior.

Regarding the sincerity/lying model, Hays and Carver (2014) observed that when an adult lied to schoolchildren aged 3 to 7 years before performing the temptation resistance paradigm, children were more likely to lie than when the adult person did not lie. These results confirm that the modeling of lying influences children’s lying behavior. Along the same lines Lavoie, Leduc, Crossman, and Talwar (2016) found that children lied more to protect themselves when parents considered lying more acceptable, compared to parents who considered that lying was never acceptable. However, Dykstra, Willoughby, and Evans (2020) analyzed a sample of schoolchildren aged 8-14 years but found no association between honesty-targeted parenting strategies or modeling of dishonesty and children’s level of lie-telling.

DISCUSSION

As children grow older, they become more aware of reality, and begin to use lies intentionally to obtain certain benefits, to hide something, or to attract attention. Lying can become an easy way to solve or cope with certain situations, however, it can also have consequences such as the lack of credibility of the individual in different areas. Lying behavior develops from the age of three and increases with age (Bureau & Mageau, 2014; Dykstra et al., 2020; Hays & Carver, 2014; Talwar et al., 2019). This developmental milestone could be related to an increased development of cognitive ability, relative to intelligence and executive functioning, which results in the enhancement of ToM and the development of inhibitory control, among other abilities (Ma et al., 2015; Talwar et al., 2017; Talwar et al., 2019). Inhibitory control is closely related to the acquisition of limits at this stage, which are mainly transmitted by the primary caregiving figures within the family environment. Both authoritarian and authoritative styles are characterized by control in a relevant way (Baumrind, 1991). According to the results of the systematic review, the authoritative style and aggressive discipline are related to lying behavior which suggests that the existence of control by caregivers leads to the development of lying behavior. Lavoie et al. (2018) indicated that, by punishing their children’s lying behavior, parents may encourage this behavior. In the results of studies on minors’ motivations for lying, the avoidance of punishment is found (Bureau & Mageau, 2014). However, Ma et al. (2015) found an inverse relationship between control and antisocial lying.

There is also empirical evidence that autonomy support is related to lower levels of lying by children and adolescents (Baudat et al., 2020; Bureau & Mageau, 2014; Lavoie et al.,

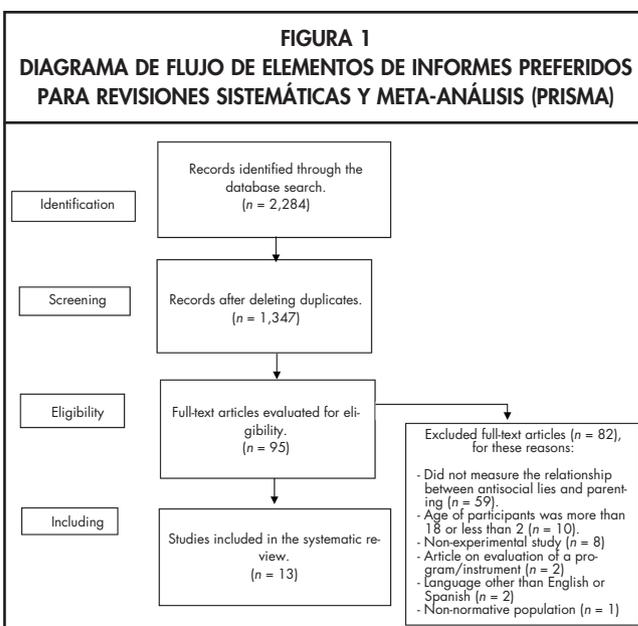


TABLE 2
CHARACTERISTICS OF THE SELECTED STUDIES AND RESULTS FOUND

Study	Origin of Participants	Sample Size	Age	Informants	Context	Instruments On Lying	Instruments on Parenting styles	Results
1. Baudat et al. (2020)	Europe	N=351 Minors	14-15	Minors	Natural	Adapted Questionnaire (Engels et al., 2006)	The Parental Monitoring Scale (Stattin & Kerr, 2000) P-PASS (Mageau et al., 2015)	Support for autonomy and disclosure - lying mothers ($\beta = -.57, p < .001$) fathers ($\beta = -.53, p < .001$)
2. Bureau & Mageau (2014)	Canada	N=174 Dyads	12-13	Minors Caregivers	Natural	Lying towards parents scale(Engels et al., 2006) The Strategic Disclosure Card Sort (Darling et al., 2006)	P-PASS (Mageau et al., 2015)	Autonomy support + sincerity value ($\beta = .39, p < .001$) Control had <u>no relation</u> to lying value
3. Cumsille et al. (2010)	Chile	N=1,678 Minors	14-17	Minors	Natural	Adapted questionnaire (Cumsille et al., 2006)	PSHIR Support (Darling & Toyokawa, 1997)	Behavioral problems + lying (OR = 1.197, $p < .01$) Maternal knowledge - lying (OR = 0.78, $p < .01$)
4. Dykstra et al. (2020)	International	N=352 Dyads	8-14	Children Caregivers	Natural	Ad hoc questions	Ad hoc questions	Modeling lying <u>unrelated</u> to lying
5. Hays and Carver (2014)	International	N=186 Minors	3-7	Researchers	Laboratory	Temptation resistance paradigm	Lying/honesty modeling	Modeling lying + lying (Chi-square = 4.552, $\phi = .269, p < .01$)
6. Lavoie et al. (2016)	International	N=146 Dyads	3-6	Caregivers	Natural	Behavioral diary	Ad hoc questions	Modeling: lying acceptable (M = 0.74) and never acceptable (M = 0.25), $p < .001$
7. Lavoie et al. (2018) Study 2	United States	N=80 Dyads	4-14	Caregivers	Natural	Behavioral diary	PSDQ (Robinson et al., 1995) CTSPC (Straus et al., 1998)	Authoritative style + lying ($r = .23, p < .05$)
8. Ma et al.(2015)	China	N=73 Minors		Researchers Caregivers	Laboratory	Temptation resistance paradigm	EMBU (Perris et al., 1980)	Control - lying ($r = -.36, p < .01$)
9. Mojdehi et al. (2020)	International	N=360 Minors	5-11	Researchers	Laboratory	Bullets	Discipline questionnaire	Aggressive mother discipline + antisocial lying (values)2-level hierarchical regression analysis: cultural group and age F change (1, 415) = 5.4, R^2 change = .03, $p < .05$; F change (1, 415) = 14.40, R^2 change = .01, $p < .001$.
10. Stouthamer-Loeber & Loeber (1986)	United States	N=364	4th-7th-10th grade	Caregivers Researchers	Natural	CBC (Achenbach & Edelbrock, 1981) and ad hoc measures	Ad hoc measures	Poor supervision + lying (between $r = .44$ and $r = .66$). Mothers' emotional rejection + lying (between $r = .28$ and $r = .48$).
11. Talwar et al. (2017)	International	N=157 Minors	4-5	Researchers Caregivers	Laboratory	Temptation resistance paradigm	PSDQ-SF (Robinson et al., 1995)	Authoritative style + lying (OR= 1.56, $p = .033$)
12. Talwar et al. (2019)	International	N=127 Minors	3-6 ^a 5-8	Researchers Caregivers	Laboratory	Four paradigms of lying	PSDQ-SF (Robinson et al., 1995)	<u>No relationship</u> between parenting styles and antisocial lying
13. Waller et al. (2012)	International	N=731 Dyads	2-4b	Researchers Caregivers	Natural	Questionnaire created from 3 scales	Parenting Scale (Arnold et al., 1993), HOME (Bradley et al., 2001), Coder impressions inventory (Dishion et al., 2004) and observation	Aggressive discipline + lying 3 years ($r = .15, p < .01$) 4 years ($r = .36, p < .01$) <u>There is no relationship</u> between positive parenting and lying.

Note: CTSPC: Parent-Child Conflict Tactics Scale; EMBU: My Memories of Upbringing; P-PASS: Perceived Parental Autonomy Support Scale; PSDQ: Parenting Styles and Dimensions Questionnaire; PSDQ-SF: Parenting Dimensions and Styles Questionnaire Short Form.

^a: Participants were 3-6 years old at the first evaluation session and 5-8 years old at the second session.

^b: Participants were 2 years old at the first evaluation session and 4 years old at the second session.



2018; Mojdehi et al., 2020; Waller et al., 2012). Disclosure and open communication between minors and caregivers encourage sincerity, because in contexts of autonomy there is not as much motivation to lie, since minors feel that their caregivers are trustworthy and care about them (Baudat et al., 2020). In fact, Cumsille et al. (2010) found that the warmth of parent-child relationships is associated with sincerity, whereas emotional rejection by parents increases lying behavior (Stouthamer-Loeber & Loeber, 1986).

Regarding the modeling of sincerity/lying, a positive relationship was found in two studies (Hays & Carver, 2014; Lavoie et al., 2016), whereas no relationship was found in another study (Dykstra et al., 2020). It is possible that modeling of sincerity/lying occurs only at early ages, but not from preadolescence onwards. As pointed out by Lavoie et al. (2016), it is possible that parents educate their children differently with regard to lying depending on their age, because of the children's level of comprehension.

As a limitation, it should be noted that the studies in the systematic review are scarce, and the objectives, paradigms, and evaluation instruments are very diverse. Nevertheless, it has been possible to reach some general conclusions. The selection of the studies and coding of the variables were carried out by one of the authors with previous experience, but the fact that these tasks were performed by a single person is considered a limitation of the study, due to the level of subjectivity involved in making decisions in each of the phases of the selection process and subsequent analysis.

CONCLUSIONS

Parenting practices and styles associated with lying in everyday and non-judicial contexts have not been a research priority, despite being one of the most normalized behaviors in interpersonal relationships from childhood for various prosocial and antisocial purposes. White lies are sometimes necessary to cushion the emotional impact of sincere information, and they are even transmitted from caregivers to minors as optimal ways of socialization. However, antisocial lies, despite having an immediate solution function for children, have been related to behavioral problems and a subsequent worsening of interpersonal relationships. Children's lying is influenced by a complex interplay of cognitive and socioemotional factors (Talwar et al., 2017). From the systematic review, it follows that aggressive discipline, emotional rejection, and poor parental supervision are related to children's lying behavior. However, autonomy support in adolescence is associated with lower antisocial lying. It would be worthwhile to study adolescent antisocial lying in future studies, because during this stage the lies are more sophisticated and have differential characteristics with respect to child lying (Evans & Lee, 2011).

CONFLICT OF INTEREST

There is no conflict of interest.

REFERENCES

- Achenbach, T. M., & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. *Monographs of the Society for Research in Child Development*, 46, 1-82.
- Arnold, D.S., O'Leary, S.G., Wolff, L.S., & Acker, M.M. (1993). The parenting scale: A measure of dysfunctional parenting in discipline situations. *Psychological Assessment*, 5, 137-144. doi: 10.1037/1040-3590.5.2.137
- Austin, J. L. (1962). *How to do things with words*. Cambridge, MA: Harvard University Press.
- Baudat, S., Van Petegem, S., Antonietti, J. P., & Zimmermann, G. (2020). Parental solicitation and adolescents' information management: the moderating role of autonomy-supportive parenting. *Journal of Child and Family Studies*, 29(2), 426-441. doi: 10.1007/s10826-019-01687-z
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence*, 11(1), 56-95. doi: 10.1177/0272431691111004
- Bradley, R.H., Corwyn, R.F., McAdoo, H.P., & García Coll, C. (2001). The home environments of children in the United States part I: Variations by age, ethnicity, and poverty status. *Child Development*, 72, 1844-1867. doi: 10.1111/1467-8624.t01-1-00382
- Bureau, J. S., & Mageau, G. A. (2014). Parental autonomy support and honesty: The mediating role of identification with the honesty value and perceived costs and benefits of honesty. *Journal of Adolescence*, 37(3), 225-236. doi: 10.1016/j.adolescence.2
- Camacho Taboada, V. (2005). Mentiras, relevancia y teoría de la mente [Lies, relevance and theory of mind]. <https://rodin.uca.es/xmlui/bitstream/handle/1-0498/8857/32388378.pdf?sequence=1>
- Coleman, L., & Kay, P. (1981). Prototype semantics: The English word lie. *Language*, 57(1), 26-44. doi: 10.1353/lan.1981.0002
- Cumsille, P., Darling, N., Flaherty, B. P., & Martínez, M. L. (2006). Chilean adolescents' beliefs about the legitimacy of parental authority: Individual and age-related differences. *International Journal of Behavioral Development*, 30(2), 97-106. doi: 10.1177/0165025406063554
- Cumsille, P., Darling, N., & Martínez, M. L. (2010). Shading the truth: The patterning of adolescents' decisions to avoid issues, disclose, or lie to parents. *Journal of adolescence*, 33(2), 285-296. doi: 10.1016/j.adolescence.2009.10.008
- Darling, N. (1999). Parenting style and its correlates. *EECE Publications-Digests*, 12(02), 2002. <https://files.eric.ed.gov/fulltext/ED427896.pdf>
- Darling, N., Cumsille, P., Caldwell, L. L., & Dowdy, B. (2006). Predictors of adolescents' disclosure to parents and perceived parental knowledge: Between-and within-



- person differences. *Journal of Youth and Adolescence*, 35(4), 659-670. doi: 10.1007/s10964-006-9058-1
- Darling, N., & Toyokawa, T. (1997). Construction and validation of the parenting style inventory II (PSI-II). *Unpublished manuscript*, 89.
- Dishion, T.J., Hogansen, J., Winter, C., & Jabson, J. (2004). *Coder Impressions Inventory*. Unpublished manual, Child and Family Center, Eugene, OR.
- Dykstra, V. W., Willoughby, T., & Evans, A. D. (2020). Perceptions of dishonesty: Understanding parents' reports of and influence on children and adolescents' lie-telling. *Journal of Youth and Adolescence*, 49(1), 49-59. doi: 10.1007/s10964-019-01153-5
- Evans, A. D., & Lee, K. (2011). Verbal deception from late childhood to middle adolescence and its relation to executive functioning skills. *Developmental Psychology*, 47(4), 1108-1116. doi: 10.1037/a0023425
- Engels, R. C. M. E., Finkenauer, C., & van Kooten, D. (2006). Lying behavior, family functioning and adjustment in early adolescence. *Journal of Youth and Adolescence*, 35(6), 949-958. doi: 10.1007/s10964-006-9082-1
- García, F., & Gracia, E. (2010). ¿Qué estilo de socialización parental es el idóneo en España? Un estudio con niños y adolescentes de 10 a 14 años [Which style of parental socialization is the ideal one in Spain? A study with children and adolescents aged 10 to 14 years]. *Infancia y Aprendizaje*, 33, 365-384. doi: 10.1174/021037010792215118
- González, A. M. V. (2008). La familia. Una mirada desde la Psicología [The Family. A Perspective Based on Psychology]. *MediSur*, 6(1), 4-13. <https://www.redalyc.org/articulo.oa?id=1800/180020298002>
- Hays, C., & Carver, L. J. (2014). Follow the liar: the effects of adult lies on children's honesty. *Developmental Science*, 17(6), 977-983. doi: 10.1111/desc.12171
- Jorge, E., & González, M. C. (2017). Estilos de crianza parental: una revisión teórica [Parenting Styles: A Theoretical Review]. *Informes Psicológicos*, 17(2), 39-66. doi: 10.18566/infpsic.v17n2a02
- Kotchick, B. A., & Forehand, R. (2002). Putting parenting in perspective: A discussion of the contextual factors that shape parenting practices. *Journal of Child and Family Studies*, 11, 255-269. doi: 10.1023/A:1016863921662
- Lavoie, J., Leduc, K., Crossman, A. M., & Talwar, V. (2016). Do as I say and not as I think: Parent socialisation of lie telling behaviour. *Children & Society*, 30(4), 253-264. doi: 10.1111/chso.12139
- Lavoie, J., Yachison, S., Crossman, A., & Talwar, V. (2017). Polite, instrumental, and dual liars: Relation to children's developing social skills and cognitive ability. *International Journal of Behavioral Development*, 41(2), 257-264. doi: 10.1177/0165025415626518
- Lavoie, J., Wyman, J., Crossman, A. M., & Talwar, V. (2018). Lie-telling as a mode of antisocial action: Children's lies and behavior problems. *Journal of Moral Education*, 47(4), 432-450. doi: 10.1080/03057240.2017.1405343
- Lee, K. (2013). Little liars: Development of verbal deception in children. *Child Development Perspectives*, 7(2), 91-96. doi: 10.1111/cdep.12023
- Lewis, M., Stanger, C., & Sullivan, M. W. (1989). Deception in 3-year-olds. *Developmental Psychology*, 25(3), 439-443. doi: 10.1037/0012-1649.25.3.439
- Ma, F., Evans, A. D., Liu, Y., Luo, X., & Xu, F. (2015). To lie or not to lie? The influence of parenting and theory-of-mind understanding on three-year-old children's honesty. *Journal of Moral Education*, 44(2), 198-212. doi: 10.1080/03057240.2015.1023182
- Maccoby E.E., & Martin, J. (1983). Socialization in the context of the family: Parent-child interaction. *Handbook of child psychology*, 4, 1-101.
- Mageau, G. A., Ranger, F., Joussemet, M., Koestner, R., Moreau, E., & Forest, J. (2015). Validation of the perceived parental autonomy support scale (P-PASS). *Canadian Journal of Behavioural Science*, 47(3), 251-262. doi: 10.1037/a0039325
- Masip, J., Garrido, E., & Herrero, C. (2004). Defining deception. *Anales de Psicología*, 20(1), 147-172. <https://revistas.um.es/analesps/article/view/27631>
- Mojdehi, A. S., Shohoudi, A., & Talwar, V. (2020). Children's moral evaluations of different types of lies and parenting practices and across cultural contexts. *Current Psychology*, 1-14. doi: 10.1007/s12144-020-01059-7
- Perris, C., Jacobsson, L., Linndstrom, H., Knorrning, L., & Perris, H. (1980). Development of a new inventory for assessing memories of parental rearing behaviour. *Acta Psychiatrica Scandinavica*, 61, 265-274. doi: 10.1111/j.1600-0447.1980.tb00581.x
- Peskin, J. (1992). Ruse and representations: On children's ability to conceal information. *Developmental Psychology*, 28(1), 84-89. doi: 10.1037/0012-1649.28.1.84
- Robinson, C. C., Mandleco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports*, 77, 819-830. doi: 10.2466/pr0.1995.77.3.819
- Stattin, H., & Kerr, M. (2000). Parental monitoring: a reinterpretation. *Child Development*, 71(4), 1072-1085. doi: 10.1111/j.1532-7795.2009.00623.x
- Stouthamer-Loeber, M., & Loeber, R. (1986). Boys who lie. *Journal of Abnormal Child Psychology*, 14(4), 551-564.
- Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the parent-child conflict tactics scales: Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect*, 22, 249-270. doi: 10.1016/S0145-2134(97)00174-9
- Talwar, V., & Lee, K. (2002). Development of lying to con-



- ceal a transgression: Children's control of expressive behavior during verbal deception. *International Journal of Behavioral Development*, 26(5), 436-444. doi: 10.1080/01650250143000373
- Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child development*, 79(4), 866-881. doi: 10.1111/j.1467-8624.2008.01164.x
- Talwar, V., Gordon, H. M., & Lee, K. (2007). Lying in the elementary school years: verbal deception and its relation to second-order belief understanding. *Developmental Psychology*, 43(3), 804-810. doi: 10.1037/0012-1649.43.3.804
- Talwar, V., Lavoie, J., & Crossman, A. M. (2019). Carving Pinocchio: Longitudinal examination of children's lying for different goals. *Journal of Experimental Child Psychology*, 181, 34-55. doi: 10.1016/j.jecp.2018.12.003
- Talwar, V., Lavoie, J., Gomez-Garibello, C., & Crossman, A. M. (2017). Influence of social factors on the relation between lie-telling and children's cognitive abilities. *Journal of Experimental Child Psychology*, 159, 185-198. doi: 10.1016/j.jecp.2017.02.009
- Talwar, V., Murphy, S. M., & Lee, K. (2007). White lie-telling in children for politeness purposes. *International Journal of Behavioral Development*, 31(1), 1-11. doi: 10.1177/0165025406073530
- Urrútia, G., & Bonfill, X. (2010). Declaración PRISMA: una propuesta para mejorar la publicación de revisiones sistemáticas y metaanálisis [PRISMA statement: A proposal to improve the publication of systematic reviews and meta-analyses]. *Medicina clínica*, 135(11), 507-511. doi: 10.1016/j.medcli.2010.01.015
- Waller, R., Gardner, F., Hyde, L. W., Shaw, D. S., Dishion, T. J., & Wilson, M. N. (2012). Do harsh and positive parenting predict parent reports of deceitful callous behavior in early childhood?. *Journal of Child Psychology and Psychiatry*, 53(9), 946-953. doi: 10.1111/j.1469-7610.2012.02550.x
- Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development*, 67(5), 2101-2114. doi: 10.1111/j.1467-8624.1996.tb01846.x
- Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition*, 13(1), 103-128. doi: [http://www.doi.org/10.1016/0010-0277\(83\)90004-5](http://www.doi.org/10.1016/0010-0277(83)90004-5)
- Woodruff, G. & Premack, D. (1978). Does the chimpanzee have a theory of mind? *Behavioral and Brain Sciences*, 4(1), 515-526. doi: <http://www.doi.org/10.1017/S0140525X00076512>

