Simonyi Gabriella

Socio-Cognitive Factors in the Development of Lying Behavior in Children

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Absztrakt

Társadalmi-kognitív tényezők a gyermekek hazugságviselkedésének kialakulásában

A gyermek hazugságai iránti érdeklődés növekvő téma a fejlődési-pszichológiában. Bár a kutatás jelentős előrelépéseket tett a hazugság különböző aspektusainak megértésében, számos társadalmi-kognitív tényező, amely befolyásolja fejlődését, továbbra is alulvizsgált marad. Ez a tanulmány áttekinti a meglévő irodalmat az akaraterősség és konvencionális komponensek szerepéről a gyerekek hazugságainak fejlődésében. Vizsgálja, hogy olyan tényezők, mint az végrehajtó funkció, temperamentum, családi háttér és kulturális különbségek hogyan befolyásolhatják a gyerekek hazugságra való hajlamát. Emellett a tanulmány tárgyal kísérleti bizonyítékokat, amelyek a verbális csalás normatív fejlődését jelzik, és hangsúlyozza a további kutatás szükségességét a hazugság atipikus fejlődésének megértéséhez a fejlődési rendellenességgel élő gyermekeknél. Az eredmények aláhúzzák a társadalmi-kognitív tényezők fontosságát az olyan beavatkozásokban, amelyek a gyerekek hazugságos viselkedését célozzák meg, különösen azoknál, akik fejlődési kihívásokkal küzdenek.

Abstract

Lying behavior in children has been a topic of increasing interest in developmental psychology. While research has made significant strides in understanding various aspects of lying, numerous socio-cognitive factors influencing its development remain underexplored. This paper reviews the existing literature on the role of intentionality and conventional components in the development of lying behavior in children. It examines how factors such as executive function, temperament, family background, and cultural differences may influence children's propensity to lie. Additionally, the paper discusses experimental evidence indicating normative development of verbal deception and highlights the need for further research to understand the atypical development of lying in children with developmental disorders. The findings underscore the importance of considering socio-cognitive factors in interventions aimed at addressing lying behavior in children, especially those with developmental challenges.

Introduction

"Lying is a sin," "Do not lie" - we all encounter such moral injunctions, yet despite this, lying is present in most people's lives. Concealing the truth is one of the most natural accompaniments of our lives. Lying persists in our daily lives also because it holds significant social adaptive significance. No one wants to hurt their relatives, old friends, especially when they approach us with goodwill. Thus, lying is generally considered antisocial behavior (Bok, 1989), yet despite moral condemnation, it remains a common behavior among adults, used as a social strategy to achieve interpersonal goals and manage and maintain relationships (DePaulo & Kashy, 1998). However, for some individuals, it becomes a maladaptive strategy that ultimately damages their relationships.A lie is a statement that does not correspond to reality. Moreover, for a statement to truly qualify as a lie, it must have two very important characteristics. One is that it must be conscious, meaning the person making the statement must be aware that it does not align with the facts; otherwise, they are not lying but merely mistaken. Another characteristic of a lie is that there is always some interest attached to it. Those who lie consciously seek to mislead others, and they hope to gain something useful from their deceptive statement, even if no advantage can be enjoyed if the truth is revealed (Talwar & Lee, 2011).Based on my current knowledge, in Hungary and Serbia, where I live, few have dealt with this topic, so the future results of my research can provide information to educational institutions, practicing educators, school psychologists, and parents alike. The aim of my study is to explore what factors have been taken into account in international research

on children's lying from the outset, what they examine and how. To identify international studies, I searched the ERIC, Web of Science, Google Scholar, and ResearchGate databases. I also used the Science Direct database to collect literature, using the following search terms: 'lying'; 'cheating'; 'deception'; 'ToM'. Throughout my work, I highlighted several key components in lying research, along which I present some of the main aspects of lying research.

Research on lying in children dates back to the beginnings of developmental psychology. Pioneers in this field, such as Darwin, Hall, Binet, and Piaget, discussed and conducted studies on the topic. In fact, the first scientific article was published by Darwin (1877). Two milestones followed this: one by Piaget (1932/1965), who investigated the moral understanding of learned lying in children, and the other by Hartshorne and May (1928) on children's dishonest behavior. There was no research examining children's lying between the early 1900s and 1980 (Lewis, Stanger & Sullivan, 1989). A direct observation in Hungary regarding children's lying is reported by Ágostné Martos (1913), who was the first to collect data on the frequency of children's lies, emphasizing the environment in which the child lives. She conducted her direct observations on elementary and middle school students, as well as her own four children. She categorized children's lies into the following groups: apparent lies (at ages 3-6, where there is no intention to deceive behind the lie, but rather confusion in understanding), imaginative lies, suggestive lies (occurring under suggestion), and positive lies (here she notes that the most common motive for positive lies in childhood is fear, where the child seeks to escape from a tight situation by lying). Martos (year, page) states that self-interest (achieving material gain, desire for possession, or escaping from an unpleasant situation) drives children to lie. According to her, the desire to escape from an unpleasant situation serves as a strong emotional motive in childhood lies. Martos's observations indicate that both boys and girls display vanity as a motive for lying. This includes cases where a child lies to arouse interest in themselves or to get more attention from adults. According to Martos, a more serious form of lying is that which arises from antipathy and is directed towards another person with harmful intent. This includes slander. She also categorizes childhood lies that are referred to as pathological lies into a separate group. In other words, there are children who invent unlikely stories with vivid imagination, but some details are true, making the rest of the narrative plausible. Classification of childhood lies by Mrs. Ágostné (1913) sounds like this: Apparent lies, with psychological motives as follows: 1)Weakness or deficiency in memory and comprehension abilities. 2) Confusion of concepts. 3)Faulty logical connections. 4)Conceptual misunderstandings. 5) Imperfections in linguistic expression. 6)Imperfections in linguistic expression under biological influence.7) Active functioning of imagination. Actual (positive) lies, with psychological motives as follows:1)Fear. 2)Self-interest (desire for material gain, desire for possession, desire to escape from an uncomfortable situation).3) Antipathy.4)Vanity. Pathological lies, with physical causes as follows: 1)Inherited tuberculosis.2)Childhood neurasthenia.3)Spinal problems.4) Severe falls.5) Burns, infectious fever. 6)Degeneracy inherited from alcoholic parents.The above categorization of childhood lies according to Ágostné (1913), which she compared with Stanley Hall's (1902) classification. Hall distinguishes five types of lies in childhood:1/ Heroic lies, where a generous child takes punishment intended for a weaker peer. 2/ Partisan lies, which arise from sympathy or antipathy. "We tell the truth to our friends, we lie to our enemies," says Stanley Hall. 3/ Selfish lies, which always aim to promote the individual's own interests. 4/ Imaginary lies, which encompass all illusions and self-deception and are always evident in children's play, e.g., when a child pretends to be a bear or a soldier.5/ Pathological lies, which stem from a pathological condition and can degenerate into a passion for lying. Ágostné's classification of childhood lies aligns with Hall's categories, providing further insight into the nuances and motives behind children's lies.

Since the late 1980s, research on children's lying has increased, primarily due to advancements in three areas of developmental psychology. The first area was the investigation of children's theory of mind (ToM), which is the understanding that individuals have intentions, desires, and beliefs and act according to their beliefs (Wellman, 1992). Lying is nothing but ToM in action because one can lie and successfully deceive only if they understand their own mental state and the mental state of the listener (Talwar & Lee, 2002a). The ability of "mind reading," or the ability to understand "I know that what I know is different from what you know," is crucial. This ability is important because

lying is based on the notion of "I know that you don't know what I know." Therefore, I can lie to you (Lee, 2012). The theory of mind reflects the ability to attribute mental states to oneself and others, understand that another person's mental state differs from one's own (Talwar & Lee, 2002b).

The second area of progress is the increased recognition that culture-specific social conventions play an important role in the formation of moral principles and related behavior (Turiel, 1983). It is increasingly recognized that lying, like all other moral or immoral behavior, is influenced not only by universal moral principles but also by social conventions (Lee, 2000).

The third area of progress occurred in the 2000s when there was a rapid increase in research examining child eyewitness testimony (Goodman, 2006) due to the rise in court cases involving children as witnesses (Lyon & Dorado, 2008). Going forward, we will take a closer look at research on lying in light of these advancements.

The Speech Act Theory in the Context of Lies

A Speech Act Theory (Austin, 1962) provides the best framework for understanding and integrating children's lies. According to this theory, verbal statements are not merely descriptions of states of affairs but intentional actions performed to fulfill social functions. Language use, according to the Speech Act Theory, is not just a guide to action but action itself. Thus, during speech, we use words as tools just like physical tools such as hammers during some action (Austin, 1962). Therefore, lying should be seen as performing deceptive acts with words (Lee, 2000). Lying is ultimately formulated as a speech act whose assertion is semantically false. The degree of lyingness is situated on a continuum depending on three factors: 1) how much the speaker intends to conceal the falsehood of the statement from the listener; 2) how advantageous the lie is for the speaker and how harmful it is to others; 3) how advantageous the lie is for others. Therefore, lying has multiple types; it is more of a scalar than a dichotomous concept (Chen-Hu-He, 2013: 390-393). Like any speech act, lying is regulated by intentionality and conventional components. The former concerns various mental states of the speakers (such as intentions, beliefs), while the latter involves the social rules of conversation (such as being polite when receiving a gift). Individuals must be aware of whether the particular socio-cultural environment they are in or belong to prohibits or allows lying (conventional element). For example, most societies avoid and condemn lies that conceal their wrongdoings for personal gain. However, some societies encourage individuals to use white lies to spare the feelings of the lied-to person. Therefore, before lying, one must consider and take into account the social contexts that favor either truth or lies, as well as the particular characteristics of the community's social rules. Improper consideration can lead to negative consequences.

A significant portion of childhood is spent acquiring knowledge about various social norms and understanding one's own and others' mental states. During development, children may lack knowledge of social conventions or the ability to assess others' mental states, or both. As a result, they may mistakenly decide to lie or tell the truth and may fail in their attempts to lie successfully. For example, children may tell the bitter truth when receiving an unwanted gift because they do not realize that social norms in their culture allow for lying in such situations. Additionally, children may choose to lie about breaking a glass, but they may be unable to assess their parents' mental state, leading them to claim that a ghost did it. Therefore, the development of lying involves acquiring and integrating the two components of sin, making appropriate decisions about lying or telling the truth, and ensuring the success of lying. These two elements develop together, but depending on the social context and the age of the children, one element may be more present, and one child may lie more while another may lie less. Regarding Speech Act Theory, we must also mention a research conducted in Hungary by Nóra Falyuna in 2016. The empirical study was a pilot study that sought answers to the research questions outlined in point 1: 1) does lying occur, and if so, how does lying manifest in rejecting a favor request; 2) what retrospective judgment does the chosen strategy receive from the rejecting party; 3) what justifies the selection of a particular strategy and the judgment it receives? Twelve data providers participated in the study. The data providers ranged in age from 26 to 56, with five males and seven females, all residents of Budapest. Although the results provide information about adults' protective lies, and although it does not address the topic of childhood lies, we consider their report significant from the perspective of lying research.

Conventionality as a Component

From the age of 3, most children understand that it is inappropriate to lie to hide a wrongdoing, and it is better to tell the truth (Lyon & Dorado, 2008; Talwar & Lee, 2008). However, children's knowledge of social norms against lying is completely independent of their actual lying behavior in similar situations (Talwar & Lee, 2008; Talwar, Lee, Bala, & Lindsay, 2002). Children often believe that lying is morally wrong but still engage in lying. Their understanding of social norms related to promises also influences their decisions regarding lying or telling the truth. Children who promise to tell the truth are more likely to confess to wrongdoing than those who do not make such a promise (Evans & Lee, 2010; Lyon & Dorado, 2008; Talwar et al., 2002, 2004). Some studies have examined whether children learn to tell lies in situations where social conventions require them to do so, i.e., to refrain from complete honesty in situations involving politeness, for example. Preschoolers generally tend to view white lies negatively in such situations, although they perceive white lies less negatively than malicious lies (Bussey, 1999). Children's views on white lies gradually become less negative until adolescence, when they start to consider them positively. Two studies illustrate preschoolers' white lies. When 3- to 7-year-olds were asked to take a picture of the experimenter, who had a large red stripe painted on their nose, the experimenter asked, "Do I look good for the picture?" (Talwar & Lee, 2002b) Most children lied, telling the experimenter that they looked fine, but later told someone else that the experimenter didn't actually seem suitable for the photo. Similarly, when 3- to 7-year-olds discovered that the experimenter gave them an unwanted gift (a piece of soap), many spontaneously told the experimenter that they liked the gift, although their behavior upon opening the gift indicated otherwise (Talwar, Murphy et al., 2007). It is evident that even preschoolers can tell white lies. However, when asked why they lied, few children mentioned politeness as a reason, and many claimed they didn't know, questioning whether their lie was indeed a white lie. During elementary school years, children increasingly tend to tell white lies associated with their personal interests (e.g., they would lose an attractive gift, Popliger, Talwar & Crossman, 2011), and they increasingly justify white lies with politeness (Xu, Boa, Fu, Talwar & Lee, 2010). Additionally, children who understand the prosocial reasons underlying white lies are inclined to tell white lies when faced with a situation involving politeness (Xu et al., 2010). These developmental changes suggest that children become increasingly socialized, learn the norms of politeness, and consequently become capable of acting accordingly. In some cultures, socialization leads to a different type of lying. In China, group harmony and collective interests are highly important to individuals and the groups they belong to (Fu, Evans, Wang & Lee, 2008). Blue lies are both selfish and beneficial to others, but only to those who belong to the lying group. Blue lies fall between generous white lies and selfish "black" lies (Barnes, 1994; for example, Fu et al, 2008). To test whether 7- and 11-year-old Chinese children tell blue lies, children were placed in a situation where their school class had the opportunity to violate district rules when selecting team members for their school's chess competition (Fu et al, 2008). Cheating by the class would give a competitive advantage to their school. When the experimenter conducted individual interviews with the children, it was found that as they got older, they were more inclined to lie to conceal their class's cheating in order to protect the school's interests. Furthermore, children's moral judgment about whether to tell the truth or lie in a similar situation predicted their willingness to tell blue lies themselves, indicating that the acquisition of cultural norms through socialization influences children's propensity for this type of lying.

Do children consider intent when telling socially sanctioned lies? Examining children's nonverbal behavior when telling white lies reveals that they intentionally influence their facial expressions and body movements as if their statement were true, to such an extent that naive adults cannot distinguish their lies from the truth (Talwar & Lee, 2002a; Talwar et al., 2007). In the soap study, after telling a white lie that they liked the soap, children were asked why. (Talwar et al., 2006). The older the children, the more complex lies they told, such as "I like it because I collect soap" or "we ran out of soap at home." Such verbal and non-verbal dissemination suggests that children's narration of socially sanctioned lies is not merely an overly automated response to the specific demands of social situations but rather an attempt to ensure that their lies are convincing to the listener

Intent as a Component

Much of the primary evidence for intent comes from children's attempts to conceal their misdeeds. These studies typically employ a temptation resistance paradigm in which children are instructed by the experimenter not to peek or play with a toy when the adult leaves the room (Lewis et al., 1989; Polak & Harris, 1999; Talwar & Lee, 2002a). Many children violate the experimenter's instructions, allowing for an examination of whether children acknowledge or deny cheating when directly questioned about their behavior during the experiment. Worldwide studies employing this paradigm show that most 2- and 3-year-old children confess to their misdeeds, but after the age of 4 or 5, most children lie, and this high rate of lying persists until the middle of childhood.

Children's denials were considered to be false statements aimed at deceiving the experimenter. Firstly, significant cases of denial occurred when children violated the rules. When children adhere to the experimental instructions, there is no false confession involved. Secondly, when preschoolers in control experiments were previously given permission to play with a toy, they did not deny playing with it later on (Polak & Harris, 1999). Thirdly, young children are more likely to confess to cheating when they feel that the experimenter is aware of the cheating, compared to when they feel the experimenter is unaware (Fu et al., 2012). Additionally, when comparing children who lie, they have a better understanding of false beliefs than children who misjudge reality and therefore behave inappropriately (Evans, Xu, & Lee, 2011; Talwar & Lee, 2008). Intent plays an extremely important role in children's lies, reflected in how children lie. The intent of children's lies has been examined by comparing nonverbal behaviors between liars and truth-tellers. Such nonverbal behaviors are not accurately distinguished or recognized by naive adults (Crossman & Lewis, 2006; Leach, Talwar & Lee, Bala & Lindsay, 2004; Talwar & Lee, 2002a), including parents, child protection lawyers, social workers, police officers, officials, and judges. In-depth analysis of children's nonverbal behaviors in videos (Talwar & Lee, 2002a) highlights that those who lie intentionally attempt to mimic the behavior of truth-tellers (e.g., establishing direct eye contact while lying). When the situation prompts children to avoid eye contact when telling the truth, they consciously avoid eye contact when lying as well (McCarthy & Lee, 2009).

Children's statements after they have told the initial lie further demonstrate the role of intentionality. In the temptation-resistance paradigm, after children denied cheating, the experimenter asked questions. For example, when children cheated in a game (e.g., Barney game experiment) and lied about the cheating, the experimenter asked, "What do you think this is?" Children's responses show clear developmental changes between the ages of 2 and 7: Most 2-3-year-olds exclaim "Barney!" without hesitation, thus revealing not only that they cheated but also lied (Evans et al., 2011; Polak & Harris, 1999; Talwar & Lee, 2002a, 2008). As they grow older, children try to avoid such obviously inconsistent statements. Initially, their efforts may be somewhat clumsy and inconsistent (i.e., semantic leakage occurs): For example, a 5-year-old girl said, "I didn't cheat. I just touched it and it felt purple. So I think it's Barney." As children age, such leaks become less common. Many older children often feign complete ignorance or provide very plausible explanations based on their knowledge (Evans & Lee, 2011; Talwar, Gordon & Lee, 2007; Talwar, Murphy & Lee, 2007; Talwar & Lee, 2002a, 2008).

A commonly used paradigm for investigating verbal deception is the temptation-resistance paradigm (Lewis et al., 1989; Polak & Harris, 1999). In this paradigm, the researcher places a special – and often desirable – object, such as a toy, behind the child's chair and instructs the child not to look at it, not to peek. The researcher then leaves the room for a short period. Upon returning, the researcher asks the child if they peeked at the toy. Subsequently, the researcher asks questions to the child about identifying and describing the toy placed behind the chair. If the child peeked at the toy, their ability to express ignorance in answering the follow-up questions is referred to as semantic leakage control and includes understanding second-order beliefs (Talwar, Gordon, & Lee, 2007). To skillfully evade detection, the child must first adopt the examiner's perspective. The child assumes that the examiner does not know whether they peeked at the toy when the researcher left the room. Consequently, the child assumes that the examiner does not know the correct answers to the subsequent questions about the size and color of the toy. The child's ability to conceal their misdeeds with lies about the size and color of the toy demonstrates how well the child can understand the examiner's perspective and craft a statement that aligns with this perspective. Therefore, this paradigm allows us to examine children's

ability for semantic leakage, which is their ability to maintain consistency in their responses while telling lies (Alloway et al., 2015).Lying and Theory of Mind (ToM): Cognitive abilities are considered as general mental faculties encompassing reasoning, problem-solving, planning, abstract thinking, complex idea comprehension, and learning from experiences (Gottfredson, 1997). Two components are necessary for successful lying. The first is the ability of "mind reading," which refers to the capacity to understand that "I know that what I know differs from what you know." This skill is crucial for lying because the basis of lying is, "I know that you do not know what I know." Therefore, I can deceive you. The second important factor is the ability of self-control.

It involves the capacity to control our speech, facial expressions, body language, thus making lies convincing. These two factors are fundamentally important for successful lying (Talwar, 2012). "Lying is the hallmark of children's cognitive maturity" (Talwar & Crossman, 2011, p. 141; also see Lee, 2013). Particularly, executive function (EF) and Theory of Mind (ToM) influence children's emerging self-motivated lying (Evans & Lee, 2011; Talwar & Lee, 2002b, 2008; Talwar, Murphy et al., 2007). Theory of Mind reflects the ability to attribute mental states to oneself and others, understanding that the mental state of another differs from one's own (Talwar & Lee, 2013). Children typically acquire this ability around the age of 6. Wimmer and Perner (1983) found that at this age, children do not lie, probably because lying is a speech activity aimed at inducing false belief in another's mind (Hall, Chandler, & Fritz, 1991; Polak & Harris, 1999; Talwar & Lee, 2008; Talwar, Murphy et al., 2007). It has been revealed that young children who excel in Theory of Mind and self-control start lying much earlier, and their lies are much more sophisticated (Evans & Lee, 2011). If we notice that a two- or three-year-old child is already fibbing, it actually indicates that their Theory of Mind and self-control are at a higher level than their peers. To execute a successful lie, one must keep multiple pieces of information in mind. We need to remember what we said previously, what the other person knows, and what we want to tell them to make them believe what we want. Therefore, according to Alloway et al. (2015), a sufficient level of verbal working memory is required for these situations. Six to seven-year-old children with better working memory are much more successful at telling believable lies (Alloway et al., 2015). The ability to lie for oneself is related to the cognitive development of childhood. Lying is an interpersonal practice that requires the intentional inhibition of truth and the creation of false beliefs in another person's mind. Executive Function (EF) is a complex cognitive construct that allows for maintaining attention, keeping goals in mind, ignoring distracting circumstances, tolerating frustration, considering the consequences of different behaviors, reflecting on past experiences, and planning for the future (Zelazo, Blair, & Willoughby, 2016). It plays a role in resisting temptations, adapting flexibly to changing environments and situations (Cragg & Chevalier, 2012; Diamond, 2013).

From the perspective of EF, higher performance in inhibitory control tasks has been found to be positively associated with children's ability to lie because while lying, they need to conceal their own faults, inhibit their expressive behavior, and suppress distracting thoughts (Evans & Lee, 2011; Talwar & Lee, 2008). Lying may also require cognitive flexibility. Studies with children have shown that the level of lying increases during preschool years, which is a function of normative cognitive development, especially with regard to executive functioning (EF) (e.g., Evans & Lee, 2011, 2013; Polak & Harris, 1999; Talwar & Lee, 2002, 2011; Xu & Lee, 2007). Children's activities can also influence the types of lies they tell. For example, Hsu and Cheung (2013) found that children with higher cognitive abilities (i.e., capable of recognizing that other people may have different perspectives for motivation) better understood prosocial lies. Williams, Moore, Crossman, and Talwar (2016) found that higher ToM scores predicted children's polite lies (when a child lies out of politeness to avoid hurting others). Additionally, understanding ToM is associated with orientation towards prosocial behavior, such as practicing empathy and compassion (Eggum et al., 2011; Fitzgerald and White, 2003). As such, it is conceivable that children with higher ToM scores are more likely to tell prosocial lies that serve the benefits of social relationships (the essence of this type of lie being that it does not benefit the liar). Although it seems likely that similar cognitive abilities facilitate lying for oneself and others, children require greater cognitive resources, such as inhibitory control and perspective-taking skills, to lie to another person while suppressing their own desires. Since previous research suggests that EF and ToM influence children's lying behavior (see Evans

& Lee, 2013; Talwar & Lee, 2008), it is worthwhile to examine these cognitive factors.

Models of Deception

Individual attitudes toward deception vary from person to person, and to this day it has not been conclusively proven whether the propensity for lying and the "talent" or ability for deception depend on age, intelligence, education, or genetic heritage (Brückner & Dorfner, 2009). Lewis (2015), for example, outlines four different reasons why we lie as children, of which only one can be considered explicitly hostile behavior: protecting the feelings of others, avoiding punishment, deceiving ourselves for positive self-esteem, and the only negative aspect, intentionally hurting another person. With the arrival of adolescence, closely linked to the development of naive theory of mind, we acquire all the skills necessary for successful deception. Several attempts have been made to classify lies as well, for example, Bok (1983) categorized lies into trivial lies and lies in crisis situations; Kozák (2002) grouped lies into lies without stakes, omitting details, acquiescence, exaggeration, trivialization, rearrangement of facts, highlighting certain details, bluffing, and structured lies.

Biland (2013), unlike Lewis, divides lies into only two categories: selfish and selfless. The latter concept encompasses all "kind lies," or any type of distortion of reality that ensures our social benefits in the long run. For example, when our parents ask us to be happier with the gift from relatives, even if we had wished for something completely different. Another everyday example is when, as children, we hear from our parents how much they don't want to talk to anyone right now, but when an old acquaintance addresses them, they put on their best smile and with a "it's great to see you!" they immediately engage in conversation. However, these only make up one-fourth of our occasions, as three-fourths of our lies are selfish in nature. Other classifications also exist alongside these: DePaolo (1996) and colleagues, for example, see the main difference in lies between self-directed and directed towards another person. From a psychological perspective, it is important to define the type and characteristics of lies, as well as the motivation behind them. Goffman (1974) distinguishes between benign and exploitative categories. These two categories can be further subdivided, with benign lies being playful deception, deception used in experiments for educational purposes, crucial tests where loyalty is tested, paternal lies, and strategic concoctions. To this list, Meltzer (2003) adds the category of altruistic lies. The exploitative lies mentioned earlier include espionage, slander, and fraud. Although researchers have proposed numerous types of lies (e.g., Cantarero, Szarota, Stamkou, Navas & Dominguez Espinosa, 2018; DePaulo et al., 1996), there is a lack of a comprehensive model that organizes the types of lies. The question of what motivates us to lie has preoccupied many researchers. Cantarero and colleagues (2018) have developed a model that places the degree of motivation for lying at the center, as well as the long-term and short-term benefits or potential losses associated with lying DePaulo et al. (1996) distinguishes between self-oriented and other-oriented lies, where the liar also considers the interests of others. Specifically, self-oriented lies are described as "lies in which the liar's own protection or enhancement of their psychological state, or the advancement or protection of interests through lying is the goal" (Kashy & DePaulo, 1996, p. 1042). Other-oriented lies serve the benefit of another person rather than the liar. Erat and Gneezy (2011) describe the typical type of Pareto lies. The purpose of these lies is to help both the liars and others. These lies are used more frequently than altruistic lies, which are most common among children (Glatzle-Rutzler & Lergetporer, 2015). Altruistic lies refer to lies where the liar does not gain an advantage at the expense of others, but rather the lie serves the benefit of someone else. DePaulo and her colleagues categorized the available lies based on content into the following categories: 1) lies about feelings, opinions; 2) lies about accomplishments, knowledge; 3) lies about actions, plans, whereabouts; 4) explanations about reasons; and 5) lies about facts, possession. Regarding the motive behind the lies, they classified them into two categories: self-oriented and other-oriented, and formally distinguished between complete lies, exaggerations, and mild lies. Depending on the subject of the lie, they grouped them into lies about the liar themselves, the recipient of the lie, another person, or an object/event. In DePaulo's study, about half of the lies were self-oriented, a quarter were altruistic, and the rest were "mutually beneficial". Regardless of gender, the majority of lies originated from psychological motives (not for material gain), but women told fewer self-oriented lies than men - at least in the college sample. It also mattered to whom the lies were told. Men told more self-oriented lies in both

samples than women, and among lies told by women, there were more altruistic lies than those told by men to women. We must also mention the list provided by Kozák (2002), who identifies the motives for lying as conformity to social roles, avoidance of fear or retaliation, the impact of coercion, conformity (i.e. adaptation to the environment due to economic pressures), self-presentation developed under pressure from economic life, conflict avoidance, maintenance or appearance of status, prestige enhancement, emotional manipulation (seeking emotional support), benevolent lies (spare others), altruism, shaping self-image (self-deception), and finally, the "cask" category, for which there is no explanation. According to Vrij (2001), the reasons for lying include wanting to make a positive impression on others, gaining advantage, protecting oneself from embarrassment, avoiding others' condemnation of one's behavior, and avoiding punishment. Vrij suggests that the latter is quite common among children.

Lies and personality

When considering personality traits that literature suggests lead to more frequent lying, these include Machiavellianism, good acting skills (theatrics), high sociability (extraversion), and high adaptability due to uncertainty. Individuals with one or more of these personality traits lie more than average, do not regret it afterward, would do it again, and do not feel uncomfortable during lying according to studies (Vrij, 2001; Kashy and DePaulo, 1996). In the Hungarian context, the relationship between everyday lies and personality traits has been relatively under-researched. Mercédesz Dinnyés (2004) created her own questionnaire based on the classifications of Kozák (2002) regarding certain characteristics of lying. She supplemented this with a personality test and questions about sociocultural data, presenting it to nearly 200 Swedish and Hungarian university students. Her results indicated a reverse relationship between the preference for certain types of lies and the level of personality, but this was not universal. For example, more friendly individuals were less likely to prefer silence as a type of lie, while more energetic (extraverted) individuals were more likely to bluff than their more reserved counterparts. Emotional instability was associated with more frequent lying in categories such as rearranging facts, withholding details, premeditated or fabricated lies, and exaggeration/minimization, whereas those who were less emotionally labile were less likely to engage in lies without stakes. Conscientiousness showed an inverse relationship with rearranging facts and exaggeration/minimization. The overall number of lies showed the expected correlations with certain aspects of emotional intelligence (awareness of emotions, recognition of others' emotions, competent emotional expression), as well as with energy, friendliness, and emotional stability.

Summary

Despite much progress in understanding the development of lying in children over the past two decades, many questions remain. To summarize, both intentionality and conventional components have only been examined in cases where the purpose of lying was to conceal wrongdoing (in children). Theory of Mind (ToM) plays an important role, but children's moral understanding of lying does not correlate with their actual behavior. Since research in this area primarily focused on younger children (Evans & Lee, 2011), it can be concluded that research on socially sanctioned lies has almost exclusively focused on the role of conventional elements. For example, the role of ToM understanding was barely considered in studies of children's narratives about white and blue lies. Studies need to simultaneously assess children's ToM and socio-moral understanding to explore how intentionality and conventional components interact in the development of prosocial lying. It's important to note that almost all previous research conducted before 2014 examined only one type of lie without exploring its relationship with other types of lies in children. Studies need to concurrently examine children's narratives about various lies, which can answer the question of whether honesty is a constant trait or depends on the social context. Recent studies published in the last five years have begun categorizing lies.Numerous socio-cognitive factors have been identified that are related to the development of either intentionality or conventional components, but researchers have only recently begun to examine the role of these factors in the development of lying. For example, children's executive function has consistently been linked to preschoolers' lying decisions (Carlson, Moses, & Hix, 1998; Evans et al., 2011; Talwar & Lee, 2008) and semantic leakage control (Evans & Lee, 2011; Talwar & Lee, 2008). The role of many other factors (e.g., temperament, family background, developmental history) remains largely unknown (with exceptions

see Lyon, Malloy, Quas & Talwar, 2008; Popliger et al., 2011; Talwar & Lee, 2011). Additionally, most studies have failed to directly compare lying in children from different cultural backgrounds, although research on the moral evaluation of children's lying has revealed significant cross-cultural differences (Lee, 2000), leaving the question open as to whether children's lying depends not only on context but also on culture.The experimental evidence reviewed in this work primarily demonstrates the normative development of verbal deception. Parents and teachers have reported increased antisocial lying in behaviorally problematic children and adolescents (Loeber & Schmaling, 1985). Two studies found different lying behavioral patterns among children with and without developmental disorders (Li, Kelley, Evans & Lee, 2011; Rasmussen, Talwar, Loomes & Andrew, 2008). Research needs to determine whether deficits in understanding intentionality and conventional components play a significant role in the atypical development of lying. Such research could have significant practical benefits for professionals working with children with developmental issues.

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Notes

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