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ACTION: THE ROLE OF THE NARRATIVE
FUNCTION OF LANGUAGE

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Chapter 13

DEVELOPMENT OF MORAL FOUNDATIONS OF ACTION: THE ROLE OF THE NARRATIVE FUNCTION OF LANGUAGE

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ABSTRACT

A theory is presented that highlights the narrative role of language in moral development. Two stages in moral development are distinguished: the stage when children can speak and memorize events but are not yet capable of cheating and the stage when they are capable of creating deceptive stories in order to protect themselves from punishment for non-compliance with moral rules. When children reach the second stage, they may encounter situations of free moral choice – the situations in which they can transgress on a moral rule and yet get away with this by presenting adults with a deceptive story. From the view of the presented theory, these kinds of situations are key for the emergence of the intrinsic moral motivation – motivation based on respect for moral rules rather than on the fear of negative consequences for non-compliance. Various scenarios of the development of this kind of moral motivation are considered, and experimental studies that aimed to test the theory are reviewed.

Keywords: Moral development, motivation, narrative function of language, deception

INTRODUCTION

Is children's deception a by-product of moral development that needs to be overcome, or can it play a positive role in this development? Is intrinsic, free of self-interest moral motivation an achievement of the mature mind only, or can it also be found in preschool children? When children comply with moral rules in the absence of direct surveillance, does it necessarily mean that moral values are internalized? Can children's development in the domain of cheating and deception be generalized to other aspects of the moral lives of

children? Is it possible that different phenomena of moral life, such as moral identity, moral integrity, moral agency, moral hypocrisy and moral disengagement have a common developmental root? These and other issues debated by developmental researchers are raised in this article.

REALITY THAT CAN BE TAMPERED WITH

Among its many functions in children's cognitive development (Piaget, 1926/1959, 1932, 1951/1962; Vygotsky, 1987), language has a function whose importance for the moral development of the child remained relatively underestimated by theorists. This function is a "story-telling" or narrative function of speech. Indeed, as soon as the child acquires the capacity of "thinking through language" (i.e., sometime between 2 and 3 years of age), the child's behavior becomes "duplicated". From now on, not only is the child doing something, but he or she also knows and remembers that he or she is doing this. In other words, language becomes a medium for alternative (or represented) reality. This new reality, correctly or incorrectly, reflects the outer world, but its most important feature in the context of this article is that it can be intentionally distorted.

It is important to emphasize here that, unlike the child's growing capacity of executive control over other mental functions (such as thinking or social behavior - see Maccoby, 1980; Vygotsky, 1987), the process of "verbal duplication" of the child's behavior is not voluntary. It is not only that the child can duplicate his or her everyday behavior in his or her memory through language; the important point is that, from now on, the child cannot help doing this. This mental, internal "dubbing" is a necessary and unavoidable accompaniment of all conscious actions of a linguistic individual.¹

There have been interesting attempts to interpret moral development as a partial result of the human ability to create narratives. Taking from Heidegger, Packer (1991) theorized that morality involves constructing one's new identity through narrations about oneself. Furthermore, Tappan (2006) argues that moral development involves "the experience of social communication and social interaction between speaking persons, engaged in ongoing dialogue with others..." (p.18). In order to preserve their identity as moral persons, individuals create a "life-story" about themselves, which is an ongoing narrative that explains to other individuals the reasons behind their actions in important events of their lives (McAdams, 1993). Research confirms that in their narratives, people often dismiss immoral things that they did in order to maintain their moral self-image (Pasupathi, Mansour & Brubaker, 2007). The important point the above theories make is that creating narratives can lead to building up the moral self-image yet it can also be used for justifying immoral actions and lies. The issue that remains to be studied is in what way the narrative function of language shapes the early stages of moral development.

The child's capacity of creating and telling narratives has been mainly investigated in the studies of autobiographical memory. The studies showed that young children can provide a good account of episodes of their past experiences (Hudson, 1990; Miller & Sperry, 1988; Nelson, 1989). At the same time, children's general memory abilities, as well as memory

¹ Some researchers argue that it is the narrative function of language that distinguishes humans from non-humans in the most cardinal way (see Carrithers, 1991).

about misleading or accurate narratives, increases with age (Templeton & Wilcox, 2000). Yet, it is not until 4 years of age that children become able to represent the views of other people in their narratives, thus contrasting what they know (think) about some events, and what others may know (think) about these events (Nelson, 1992; Perner, 1992). For example, Nicolopoulou and Richner (2007) analyzed 617 stories created by 3 to 5 year old children and found that in the 3-year-olds' stories, characters are represented by their physical and external features, whereas 4- and 5-year-olds increasingly attributed "agents" with mental states and mental representational capacities. The point I am going to make is that the capacity of creating narratives in which different points of view can be contrasted is a crucial prerequisite for the emergence of the new type of mind.

THE T-MIND AND THE TDT-MIND²

Sometime between the ages of 2 to 3 years, the child becomes an individual with a little "bug" in his or her head, and this bug is language. Whatever the child does, or thinks, or experiences at the moment, is now being recorded on the "portable tape recorder" of his or her verbal (narrative) memory. Through this taping, an original copy of the child's behavior is created. Of course, this copy is far from being perfect. When telling about past events, the child may forget or misinterpret something, and there can be other factors responsible for the loss of information (like the lack of attention, insufficiency of linguistic means, etc.). It was reported for instance that preschool children are vulnerable to misleading suggestions (Bruck&Ceci, 1999), and in certain cases children and adults claimed that they actually experienced events they only imagined or thought about (Belli, Schuman, & Jackson, 1997; Ceci, 1994). There is also a developmental progression between 3 and 6 years of age on both general memory abilities and abilities to report accurate or misleading narratives (Templeton & Wilcox, 2000). Nevertheless, if you ask a 3-year-old child to tell what he or she has been doing for the last few minutes, the child will come up with a more or less plausible story. Let me call this original story "the first tape", or simply the tape (T). This is not to say that young children's memory is a passive "imprinting" of information on the brain tissue, similar to that which happens in taping a sound on a tape recorder. All the above studies have shown that this process is more constructive and interpretive than the "tape" metaphor would suggest. Yet this metaphor is useful because it emphasizes the compulsory and involuntary nature of young children's memory. The changes in young children's memories that result from misunderstanding or misinformation are akin to "noises" on the tape of a tape recorder, rather than to deliberate amendments made with the purpose of misleading and deceiving others.

In everyday life, the usual function of the T is the same as that of verbal memory. Apart from storing, keeping and retrieving information, the T maintains the unity and consistency of the 'stream of consciousness' as it flows from the past to the future. There is, however, a class of situations when producing the T becomes insufficient for coping with reality. In these situations, the child anticipates that he or she would have to expose the T to other people, but for some reasons is unwilling to do so. Typically, such situations emerge when the child's

² These abbreviations stand for the mind without the capacity of cheating (the T-mind) and the mind with that capacity (the TDT-mind).

self-interests contradict the interests of other and more powerful individuals, and the child is aware of this.

In my analysis of these conflicting situations, I am going to skip trivial cases where the child is simply too small and immature to be able to control his or her actions. For example, if a 2-year-old child has a strong temptation to take a bite from a cake that was prepared for a party of guests and left on the table unattended, the child would hardly be able to restrain his or her impulse, and most adults are aware of that. If, however, the child is already capable of keeping his or her impulses under control, the child still has a chance of doing what he or she wants and getting away with this. For that to be possible, however, the child has to create a story for the “outer use” – a double tape (for instance, that it was a dog or another child who tried the cake).

In the view presented in this article, the capacity of creating the T-duplicates, which distort reality, is of fundamental importance for the child's moral development. With the creation of the T-duplicates, the child's mental space becomes doubled, or double-layered. In the first layer, the T, the events are stored as they occurred. As this process is compulsory and involuntary, it cannot be edited on purpose, even if the child does not want some events to remain in his or her memory. With the T-duplicate things are different. The child creates and edits the events, adjusting the T-story to his or her own needs. In the process of editing, the child replaces some events written on the T with different events, or changes some of their elements and their succession.

I'd like to emphasize that creating the T-duplicates is not the same thing as cheating. In everyday life, many of our lies happen unexpectedly and without selfish intention. When my friend, in whose house I am enjoying a pleasant evening, suddenly asks if I like his new carpet, I might be tempted to say “yes, I do”, even though I might not. When at a table a mother asks her 5-year-old daughter if she had washed her hands, the girl might say that she had whereas she actually hadn't. In contrast, the T-duplicate story is a deceptive story that is prepared in advance, with the intention to be used in the future in order to achieve a personal benefit.

Yet are young children cognitively sophisticated enough to develop a dual-process model that creating the T-duplicates involves? There is evidence that shows young and preschool children's capacity to manipulate imagined objects and reflect upon them, and that this capacity is more advanced than is usually assumed. For instance, Piaget (1962) argues that the capacity to symbolically represent things and sensibly manipulate symbolic representations is present in 3-year-old children. Piaget also gives multiple examples of 4- and 5-year-olds' imaginary stories in which children could consistently and for a long time manipulate complex imaginary objects. In a more recent work, Harris (2000) provided ample evidence for young children's precocious capacity to deal with the imaginary world. For example, in a game of pretence, 2-year-olds were shown to be able to imagine a chain of causal transformations of objects and describe their outcomes; they could also manipulate pretend, imagined objects in such a way that these objects retained both physical and causal properties of the physical prototypes. Dias and Harris (1988) have shown that 6- and even 4-year-olds, under certain circumstances, are capable of drawing logically correct conclusions from semantically incorrect premises. Shultz, Wells, and Sarda (1980) reported that preschool children can distinguish between intentional and unintentional actions. In light of this and other existing evidence, the task demand of creating the T-duplicates does not seem particularly challenging.

To be able to create the T-duplicate, the child has to acquire two major capacities. First, the child has to believe that his or her mind is private, and the T cannot be read by other people directly from his or her mind (understanding the privacy of the individual mind). If the child has any doubts about this, then the creation of the T-duplicate has no point; this could only damage the child's image in the eyes of other people and aggravate the anticipated punishment. There is indirect evidence that the awareness of their minds' privacy appears in young children: even 3-year-olds were able to understand that, unlike perceived physical objects, imagined entities cannot be touched or seen by other people and can also be fantastic (Estes, Wellman & Woolley, 1989; Wellman & Estes, 1986).

Second, the child has to be able to view the situation through the eyes of other people, or to have some kind of "theory of mind" (ToM). Intense research has been done on children's understanding that others have mental states, such as desires, intentions, and beliefs. A central aspect of research on ToM was children's understanding of false beliefs. The concept of false beliefs stems from the distinction between mind and world and presents the mind as a representational device that sometimes gets things wrong (Dennett, 1979; Premack & Woodruff, 1978). Several tasks have been created to trace the development of preschoolers' false belief understanding. In the change of location task, children witness a character placing an object in one location and then leaving the room (Wimmer & Perner, 1983). In the character's absence, another character moves the object to a new location. Children are then asked where the first character will look for his or her object upon his or her return. Children younger than about 4 years of age typically state that the character will look for the object where it really is and not where the character presumably believes it to be (where he or she placed it last). Another task, the unexpected identity task, was designed to reduce task demands by dispensing with the narrative form. The children are presented with a "smarties" box and asked what they think is inside (Gopnik & Astington, 1988; Perner, Leekam, & Wimmer, 1987). After they answer, "smarties," the box is opened to reveal pencils. The box is then closed and children are asked "When you first saw the box, before we opened it, what did you think was in the box?" Typically, three-year-olds state "pencils," while older children correctly state "smarties." Summarizing extensive research on false belief tasks in a meta-analysis, Wellman, Cross, and Watson (2001) concluded that children's performance on these tasks improves dramatically from ages 3 to 5 years, from below-chance performance before 3 years and 5 months to above-chance performance after 4 years. This improvement is highly robust even in the face of various manipulations designed to simplify the task. There is some evidence that indicates understanding of false belief to be a uniquely human ability: children were able to succeed in both verbal and nonverbal false belief tasks, whereas no ape could succeed on nonverbal false belief tasks (Call & Tomasello, 1999). Recently, evidence has been reported that 15-month-old infants already possess (albeit in a rudimentary and implicit form) the ability to attribute false beliefs to an actor (Onishi & Baillargeone, 2005). Like the earlier reported kinds of "implicit knowledge" in infants, the nonverbal "understanding" of false beliefs cannot compete with older children's verbal understanding of false beliefs: in order to create the T-duplicates, children have to have verbal representations of other's false beliefs. Importantly, children's ToM performance is positively related to their language ability (Cheung, Hsuan-Chih, Creed, Ng, Wang & Mo, 2004; Lohman & Tomasello, 2003; Milligan, Astington, & Dack, 2007), inhibitory control (Carlson & Moses, 2001; Perner, Lang & Kloos, 2002), understanding pretence (Rosen, Schwebel & Singer, 1997), and deception (Carlson, Moses & Hix, 1998).

It is approximately at the age of 3 years that children also become capable of lying (Hala, Chandler & Fritz, 1991; Lewis, Stranger, & Sullivan, 1989; Polak & Harris, 1999; Perner, 1992; Sodian, Taylor, Harris & Perner, 1991). Talwar, Lee, Bala and Lindsay (2002) asked 3- to 7-year-olds not to peek at a toy while the children stayed alone in the room. Although the children promised not to peek, 82% of them peeked. When asked about whether they had peeked or not, 37% of 3-year-olds and 86% of children between 4 and 7 years of age lied. The majority of children were also able to identify an incorrect statement of a story character as lying. At the age of 5 years, children not only can effectively deceive, but they also can confidently detect lying in other people. Lee, Cameron, Doucette and Talwar (2002) presented 3- to 6-year-olds with a story in which a protagonist made an implausible statement. They found that 3- and 4-year-olds tended to accept the claim, whereas 5- and 6-year-olds reported that the character committed a misdeed. Asendorf and Nunner-Winkler (1992) reported that at the age of about 5 years, children are explicitly aware that they are expected not to violate moral rules. At the same time, it was found that cognitive moral understanding is not a good predictor of children's moral behavior: "Rather, an overwhelming majority of younger children will "happily" transgress in order to satisfy their own needs when these collide with known and well understood moral commands" (Nunner-Winkler, 1998, p.601).

It is important to emphasize that children's capacity for deception, which is of importance for this paper, is based on language and implemented through linguistic means, which makes it a specifically human ability. Indeed, non-human primates demonstrate a number of behaviors that function to deceive others, such as "tactical deception" of other animals (Whiten & Byrne, 1994) or using knowledge of what a human competitor can and cannot see to develop deceptive strategies for concealing their approach to contested food (Hare, Call & Tomasello, 2006). However, these non-verbal deceptive behaviors are no match to children's deception that operates on the basis of language. Behavioral deception in primates is confined to the presently unfolding events, whereas language based deception can also operate with events of the past and the future.

Having these capacities in his or her possession, the child is able to create a narrative in which the picture of past events is arranged in the way the child would like others to believe the events occurred. As a result, the child interprets the meaning of what other people do on the basis of the T-duplicate, and this meaning can be drastically different from (even opposite to) the meaning that these actions would have without the T-duplicate being involved. For instance, if the child says that the dog has eaten from the cake and is praised by the adults for not doing it himself or herself, the child must be aware that the praise is given to him or her not for the transgression (which is written on the T) but for his or her good behavior (which is presented to adults in the form of the T-duplicate and wrongly taken by them for truth).

With the acquisition of the capacity for creating edited duplicates intended for outer use, the child's mind becomes able to operate with two kinds of representational reality: the one that exists for private use (the T-reality) and the other that is used for presenting to the external social environment (the T-duplicated reality). I will call this kind of mind the T-doubled-T-mind (the TDT-mind), contrasting it to a simpler T-mind that precedes the TDT-mind. It has to be emphasized here that, although the TDT-mind requires the understanding of "false belief" and the privacy of the individual mind, it cannot be reduced to either of these capacities. The acquisition of the capacities for representation and meta-representation, as well as of making and telling narrations, are necessary but not sufficient conditions for the emergence of the TDT-mind. In this paper, I am going to show that (1) it is only when the

child's representational mind becomes the TDT-mind, the child enters the space of free moral choice (SFC), and (2) entering the SFC is crucial for the development of a special kind of moral motivation – the intrinsic motivation based on the moral self-esteem.

THE TDT-MIND AND MORAL DEVELOPMENT

Let me start with the important distinction between the *rule-conforming moral behavior* and the *free moral action*. Suppose that a friend of mine, who lives in a foreign country, left with me some books that I promised to donate to the library for the public use. When I inspected the books and found them to be of no particular interest to myself, I fulfilled my promise and donated the books to the library. By so doing, I followed the moral rule of decency (to keep one's promises). The important feature of this action is that following the moral rule (my moral interest) also coincides with my self-interest (not to keep in my house the books that I do not need). Let me call this kind of behavior “the rule-conforming moral behavior”.

Now, suppose that after I examined the books, I found them very interesting and important for my own work – the books that I would like to have permanently on my desk. In this case, my self-interest (to keep the books) is in contradiction with my moral interest (to fulfill my promise and donate the books to the library). Even now, if I donated the books to the library, I would still be in doubt of what made me do so – my intrinsic moral motivation or my hidden self-interest. Indeed, I might think that my friend could enquire if I had fulfilled his promise and donated the books, and he would be angry with me if I didn't do so.

Suppose, however, that I received sad news that my friend had tragically died in a car accident. Now I know for sure that I can keep the books that he left without anyone ever finding out about the promise that I gave to my friend. In other words, now I am completely free in my choice to either donate the books or keep them. It is only now that if I donated the books to the library, I could be sure that I committed a moral action – the action based on intrinsic moral motivation. In other words, by a “free moral action” I mean an action that includes three components: (a) it is committed in accordance with the moral rules; (b) in order to commit this action, I have to give up my self-interest; and (c) when committing this action, I am free from external or internal enforcement to comply with the moral rules. Importantly, component (c) includes anonymity, which means that I am free not to comply with the moral rule and still appear a moral person in the other people's eyes.

Perhaps, some readers would find this situation too rigorous and constrictive and away from the moral challenges of the everyday life. This, however, is not the case, because the above situation bears on important theoretical issues of moral development. Ever since the XVIII century's dispute between Immanuel Kant and Francis Hutcheson (Kant, 2005/1785), there is an ongoing discussion about the possibility of the autonomous, “free of self-interest” moral motivation in real humans (for the update, see Batson, 1990; Batson & Thompson, 2001; Blasi, 1983; Nucci & Lee, 1993). This dispute is far from being only academic since the existence of this kind of moral motivation proves the ability of a human individual to exercise free action and thus creates a psychological ground for juridical and political practices that are based on the presumption of an individual's freedom and personal responsibility.

On the basis of this definition, the development of a free moral action in a child includes the acquisition of three main psychological properties: the ability of inhibitory control, the knowledge of moral rules, and the development of appropriate moral motivation.

Although the precursors of inhibitory control can be traced in infants (Bruner, 1974), the proper ability to control one's actions appears at the age of 3 years (Diamond & Talor, 1996; Hughes, 1998). Like the case with the ToM development, a crucial step in the inhibitory control performance seems to occur between 3 and 4 years, and this improvement is significantly related to the performance on ToM tasks (Carlson & Moses, 2001).

Children beginning social and moral rules as arguments in family disputes at the age of around 3 years (Dunn & Munn, 1987). Mostly, children spontaneously learn moral rules from their caregivers and older siblings, with adults only occasionally giving the children direct moral instructions (Edwards, 1980; 1987). Interestingly, even young children can distinguish moral transgressions (such as lying and stealing) from violations of social conventions; it is only with regard to moral transgressions that children refer to rights and welfare of others (Turiel, 1983). Both preschool (Smetana, 1981) and school age children (Nucci & Nucci, 1982; Smetana, 1981) react to moral transgressions differently from how they react to transgressions of conventional rules: moral transgressions are viewed as more serious offences than conventional transgressions. This capacity to verbally formulate moral rules crowns up the previous development, during which children acquire some intuitions about right and wrong, as they begin to react with distress and shame to their mishaps and wrongdoings (Cole, Barrett & Zahn-Waxler, 1992; Stipek, Gravinski & Kopp, 1990).

But the most important and psychologically interesting is the third process – the development of moral motivation in children. At the age of 2 years, children can show certain precursors of moral feelings (Cole et al, 1992). Reacting with particular emotions (like anxiety) in response to violations of prohibitions can be acquired quite early in life through reinforcement (Emde, Biringen, Clyman & Oppenheim, 1991). Yet, these reactions do not fundamentally differ from emotional responses of animal subjects as they are trained to behave in a certain way. By definition, the intrinsic moral motivation can only emerge (and work in the child's action) in a situation when the child has a free choice between following his or her self-interest (and, therefore, transgressing), and following moral rules.

The question arises, under what conditions can such situations occur in the everyday life of a child? Obviously, all the components that are necessary for a moral action must be present: (a) the child is aware of the moral rule and anticipates punishment for the transgression, (b) the child's self-interest makes the transgression attractive for the child, and (c) the child sees the opportunity to transgress while making others think that he or she did not transgress. While conditions (a) and (b) do not require the child's mind to be the TDT-mind, condition (c) does.

The crucial point to emphasize is that *there can be no free moral decision made if there is no opportunity to transgress and still appear to be a moral person in the other people's eyes.* In certain situations children can use their TDT-mind for deception and still go unpunished if, for example, they can relegate responsibility for their lies to other people or excuse these lies by circumstances (see Braginsky, 1970). This kind of cheating behavior, usually displayed in the studies of Machiavellianism is, however, of no interest for the purpose of this article, because it exposes the child as a liar and has no bearing on the development of intrinsic moral motivation. The opportunity to transgress anonymously can only appear if the child can create a story in which he or she did not transgress, present this

story to other people and make them believe it. In this article, this kind of lying will be referred to as “negation of wrongdoing” lying. If the child's mind is the T-mind, the child can still transgress, but he or she can only do this in the anticipation (perhaps, unconscious and “conditioned” by previous experiences) of the forthcoming exposure and, most likely, punishment. That is why wrongdoings in toddlers are usually accompanied by frustration and anxiety (Cole et al., 1992; Stipek et al., 1990). When the child's mind becomes the TDT-mind, situations emerge in which the child is aware that he or she can get away with the “negation of wrongdoing” lying and, therefore, is free to transgress. In this paper, this class of moral conflict situations will be referred to as “the space of free choice” (the SFC) situations.

In the real life of a young child, in most situations of moral conflict only conditions (a) and (b) are implemented; as far as it concerns condition (c), the opportunity to create a feasible “negation of wrongdoing” story and make others believe it is a rare occasion for the child. Children of the young age are rarely left unsupervised, and in most cases transgressions leave traces and are easily detectable. For instance, in the “cake temptation” example, the child with the TDT-mind will hardly go for the transgression, as soon as he or she is already smart enough to understand that the “dog story” is not going to work. Since most real life situations of the young child are like that, the child with the TDT-mind would not transgress even if left alone and unobserved, or transgress and try to avoid punishment through making excuses of relegating responsibility to others (i.e., saying that he or she had been encouraged to try the cake by an older brother).

As the child grows older however, constant surveillance is lifted and the child increasingly finds herself in the SFC situations. Usually, children learn about the SFC situations by observing other children or story characters who successfully deceive others by creating the “negation of wrongdoing” lies and get away with this. On the basis of these observations (conversations) children become aware that there is for them an opportunity to do the same. When later finding themselves in such situations, children with the TDT-minds will try to create the “negation of wrongdoing” story. Having lied successfully for the first time, the child would then be less hesitant and find more and more opportunities to do so. The more efficient deceiver the child becomes, the larger the space of free moral choice gets. So, it is not an exaggeration to say that it is through deception and lying about their own behavior that children enter the space of free moral choice and moral responsibility³.

It should not be surprising that the child who entered the SFC does not go for a moral choice straight away. In fact, if this were the case, there would be no need for development of intrinsic moral motivation. Indeed, if, by some miracle, children had an innate tendency (motive) to follow moral rules in the SFC situations, then they wouldn't have a free choice; rather, the children would follow moral rules in the same way animals follow their instincts. On this basis, one has to conclude that there could be no an opportunity for children to develop a moral action if they did not acquire the capacity to deceive. The stage of lying about their own behavior is the first and necessary stage in the development of free moral action in children.

³ This is not to say that young children are exceptionally deceptive in a sustained way. As argued above, the opportunities to deceive anonymously are not so frequent. However, the significance of these opportunities for the development of intrinsic moral motivation is in contrast with their relatively small proportion among the whole number of situations of moral conflict. By analogy, involvement in a pretend play, especially with adults, is key for the development of children's imagination (Harris, 2000), yet for most children this kind of play is not an everyday experience and happens relatively infrequently.

As the TDT-mind develops and the SFC expands, the child creates two different images of himself or herself: one is the private image, and the other is the image presented for the outer world. In his or her private image, the child is a liar, and in his or her public image, the child is an honest individual. As soon as conformity to moral rules is positively evaluated by society and nonconformity is evaluated negatively, the child's private image acquires for the child an ambiguous meaning. The child may think of himself or herself as a smart and clever liar, yet he or she is aware that what he or she is doing is wrong. At the same time, the public image, due to positive social reinforcement, acquires a positive meaning in the child's eyes ("a good boy or girl").

So, in the beginning, a positive moral image of themselves is created by children with the TDT-mind as a protective shield against the pressure of society. This positive moral self-image can be viewed as an analogy to what Freud named "superego". There is, however, one important difference. According to Freud (1966), "superego" emerges as a result of the "introjection" of a parental image by a child, driven by the child's (mainly, a male child's) desire to resolve the "Oedipus complex" (the erotic drive the child has to his or her parent of the opposite sex). In this process, the child is viewed as a passive individual who is forced to let the external controller (the "superego") in his or her mind under the pressure of society. In contrast, the TDT-mind theory proposes that children of both sexes actively create their positive moral self-images; the driving force behind this is not the erotic need or the feeling of guilt, but the need of the children to protect their self-interests against the interests of the more powerful individuals (parents, caregivers).

Viewed in this way, the whole process of the development of the free moral action in the child is about when and how the positive moral self-image ceases being "the means to the ends" and becomes the "end in its own right". In other words, why and when do children become interested (motivated) to do what their positive moral self-images require them to do (that is, to go for the moral choices in the SFC situations)? It could be argued that preschool children are not capable of this kind or intrinsic moral motivation as long as it requires the development of moral self, which does not appear until the age of adolescence. On the contrary, as the "social domains" approach to morality emphasizes, the children's moral decisions vary across domains and are influenced by context (Nucci, 2002; Turiel, 2001).

However, I do not see a contradiction between the "context driven" moral motivation and the type of motivation based on the moral self-esteem. Rather, the situation in which a person has to make a moral decision while being free from internal and external enforcement is an extreme case of the "context dependent" moral judgment and behavior. The characteristic feature of this case is that here the space of free moral choice stands for the context. As was pointed out above, situations like that occur in the everyday life, and they can be reconstructed in experiment with the purpose of answering the important theoretical question whether autonomous, free of self-interest moral motivation is a late achievement only, as Blasi's (1983) theory would suggest, or it can be observed in children, at least in its rudimentary form. In my view, the latter possibility cannot be completely overruled. In order to be able to conform to a moral rule on the ground of respect to this rule, one does not have to be an expert on the metaphysics of morality. Rather, under certain circumstances, a simple knowledge that, in the eyes of loved caregivers, lying is a bad thing to do may motivate a child not to lie. This goes along with the view that "moral reflection is a capacity available in different forms at all points in development and . . . people at all points in their social growth can evaluate social situations from a moral point of view" (Nucci, 2004, p.127).

Speaking theoretically, there can be at least three scenarios of under what circumstances this “reflective motivation” might appear in children. The first, and the simplest one, is the “*discipline internalization*” scenario. According to this scenario, sooner or later (and better sooner than later) adults discover the child's “negation of wrongdoing” lies and apply disciplinary measures. This would restore the child's rule-conforming behavior, but at the price of throwing the child out of the space of free choice and back in the space of externally controlled moral behavior. This scenario would reduce the problem of moral development to the process of elaboration and internalization of the means of external control and surveillance over the child's behavior.

Of course, the process of elaboration and internalization of adequate disciplinary techniques is an important issue of moral education (for the review, see Grusec&Goodnow, 1994). However, this process has one major limitation: what is called the “internalization of values” resulting from the application of disciplinary techniques is in fact the internalization of “external incentives to follow the values”. Indeed, with cognitive development, children become more sophisticated in their capacity to anticipate the disciplinary consequences of their transgressions and learn to obey moral rules even at the absence of adults' surveillance. Yet they do this not because the moral values *per se* are important for them, but because they become more sensitive to the possible dangers of disciplinary consequences of moral transgressions. In fact, this process of internalization of surveillance is a cognitive elaboration of the rule-conforming motivation that appears in toddlers. What in toddlers exists in the form of emotional anticipation of the disciplinary consequences of a transgression, in older children becomes cognitively based anticipation. In both cases, the result of internalization is the rule-conforming moral behavior, rather than a free moral action. It is also possible that early forms of external moral motivation acquired through “social learning” (Bandura, 1969; Perry & Perry, 1983; Sears, Maccoby& Levin, 1957), and the later, cognitively mediated forms (Grusec&Goodnow, 1994; Kochanska, 1994) work together, making transgressions in the absence of apparent surveillance even more difficult for a child.

This is not to say that perfection and sophistication of the disciplinary techniques is unimportant for moral development. It is through the disciplining and external control that the child with the TDT-mind acquires the awareness of the positive value of moral norms, and the polarization between the child's private image and his or her public image grows. Yet, the role of disciplining for the development of moral action is only auxiliary. Disciplining provides a background, a foundation for the development of moral action, but it cannot make this action appear. Rather, the sophistication of disciplinary techniques does a good job of providing motivation for children's rule-conforming moral behavior. In an indirect way, the limited nature of disciplining is acknowledged by some authors who make a point that maintaining good and healthy relationships with children should be given priority over the goal of internalization, particularly if the cost of internalization is an increase in children's feelings of anxiety and guilt (Goodnow, 1992; Higgins, 1981, 1989). Another way to acknowledge a limited nature of internalization is emphasizing negative ramifications of cognitive development for moral conduct. Bandura, Barbarinelli, Caprara and Pastorelli (1996) argued that cognitive development, along with creating an invariant control system within a person that prompts the person to cherish moral values, also creates mechanisms by which self-sanctions can be disengaged from inhumane conduct. The authors studied 10 to 15 year old adolescents' proneness to moral disengagement (such as resort to moral justification, euphemistic labeling, advantageous comparison, displacement and diffusion of responsibility,

distortion of consequences, and dehumanization of victim) and found high correlations between moral disengagement and delinquent behavior. Children who were prone to moral disengagement exhibited a higher level of interpersonal aggression and delinquent behavior than individuals who maintained a high level of moral agency.

The second possible scenario is the “*cognitive identification*”. It can be hypothesized that, as the number of occasions to achieve the child's goals through “negation of wrongdoing”cheating grows, so does the dissociation between the child's private image and his or her public image. In order to reduce this dissociation (“cognitive dissonance”), children identify themselves with the public self-images they have created, in the same way that children identify themselves with their gender roles (Bem, 1981; Kohlberg, 1966). This process of “cognitive identification” with the positive moral self-image (which the public image of the child is) can be facilitated by the child's learning about folk story characters that impersonate the good and bad behaviors, and by observing moral behavior of other people in the SFC situations.

Lastly, the third scenario is the “*emotional identification*”. Baumrind (1967) found that children who displayed most competent and mature social and moral behavior had loving, demanding and understanding parents. In contrast, restrictive, punitive and inaffectional parents mostly had disphoric and socially immature children. Although the connection between child-rearing practices and children's psychological development is a complex one and depends on children's individual differences (Kochanska, 1991; Kochanska, Kuczinski, &Radke-Yarrow, 1989; Lamb, 1982), the view prevails that parental warmth, cooperation and helping in treating their children, understanding children's needs and respect to the child's self-esteem facilitates children's moral development (Damon, 1988; Dunn, Brown, &Maquire, 1995; Higgins, 1989; Maccoby, 1980; Maccoby& Martin, 1983; Walker &Talor, 1991). It can be assumed that if children are treated in a trusting and loving way, if they have a fair share of their parents' time and personal attention to their needs, then the public image which is associated with the kind of a person the parents would like the child to be, acquires an emotionally positive value for the children. As a result, each time when the child's “negation of wrongdoing”cheating is accepted “on trust” by a person whom the child loves and respects, the child can experience emotional discomfort and guilt for having deceived the person. Conversely, when at another time the child goes for a moral choice in the SFC situation, he or she can experience a positive feeling for meeting the parents' expectations. This “transfer of love” from the object of affection (the parents) to the moral norms (positive moral self-image) can later be generalized to include moral conduct with regard to other people.

In any of the above scenarios, the child has to develop a kind of moral motivation that is free from self-interest, something akin to what theorists called moral identity – the tendency to live consistent with one's moral self (Blasi, 1983; Colby & Damon, 1992). Yet, as some authors pointed out (Hardy & Carlo, 2005; Nucci, 2004), the moral identity theory only accounts for the intrinsic moral motivation that emerges in young adulthood. The question that remains open is whether people of earlier ages can develop intrinsic moral motivation. Some data suggested that autonomous moral motivation in adolescents could emerge prior to moral identity development (Pratt, Hunsberger, Pancer, &Alisat, 2003). As this paper proposes, there are no grounds to reject the idea that even preschool children, in certain circumstances, can develop intrinsic moral motivation based on moral self-esteem and moral self-respect; after all, at the age of 6 children have awareness of moral norms, relate those

norms to their own behavior, and have other prerequisites of autonomous morality, such as understanding theory of mind (see *The T-mind and the TDT-mind*).⁴

In this scenario, it is important not to confuse the feeling of trust and love that drives the child's emotional identification with his or her positive moral self-image and the feeling of empathy that is considered to be an emotional underpinning of moral development (Eisenberg & Miller, 1987; Hoffman, 1988; Smith, 1966). Empathy can indeed make a person comply with moral rules even in the absence of surveillance or pressure of social environment (Batson, 1990), yet it is a biologically predisposed emotion and promotes the development of rule-conforming moral behavior rather than a free moral action. For the purpose of the analysis chosen in this paper, only those situations of moral conflict have been selected in which transgressions cause minimal harm to other people and are unlikely to evoke the feeling of empathy in the child.

TESTING THE TDT-MIND THEORY IN CHILDREN IN THE SITUATION OF A FREE MORAL CHOICE

In order to test the TDT-mind theory, an experimental paradigm was needed that met the criteria of the SFC-situation. First, in this situation, children must be aware that not only are they not under surveillance, but also that there is no way for other people to find out about their moral transgression (anonymity). Second, children must be aware that, if they transgressed, the consequences of the transgression for other people would be negligible (freedom from empathy). This would eliminate the possibility for the feeling of empathy to contaminate the freedom of the child's choice. Third, children should be explicitly alerted to the fact if they complied with the game rules, there might be a price to pay (awareness of consequences of being moral). This would eliminate the possibility that children might abstain from violation of the game rules and still hope that they will be externally rewarded for doing this. Fourth, children must be made aware that if they violated the game rules, they would be questioned about what they did when they were left alone (anticipation of having to cheat). This is needed in order to rule out the possibility that children transgress in the hope they will not be asked questions about their transgression. Fifth, the children must be aware that if they unintentionally transgressed on the game rules, they would have the chance of correcting themselves, thus avoiding questioning and having to cheat (disengagement of inhibitory control failures from moral transgressions). This condition disengages violations that resulted from insufficient inhibitory control from violations that are committed on purpose.

⁴This is not to say that in preschool children their intrinsic moral motivation is the same as the one based on moral identity in adults. Rather, intrinsic motivation in preschoolers should be viewed as an early and rudimentary form of the intrinsic moral motivation that later develops in adults. The authority of loved parents, which underlies the children's respect to moral norms, in adults can be replaced by the authority of God. After all, according to the two dominant religions of the Western world, Judaism and Christianity, the basic moral rules ("the Ten Commandments") were received by Moses directly from God. Despite today we view these rules not as divinely given, but as a set of useful conventions worked out by our societies, some people still voluntarily obey moral rules in the absence of surveillance, although obeying these rules involves sacrificing their personal interests (Batson & Thompson, 2001). This suggests that, subconsciously, people might still believe that the Ten Commandments are God's imperatives, even though consciously they may consider themselves not to believe in God.

In research, two main paradigms were used for studying deception in children. One paradigm (the “pointing paradigm”) was employed for examining “strategic deception” – the children’s capacity to make others believe false information. For instance, Sodian (1991) asked 3-year-olds to point to an empty location in order to deceive a “robber” as to where “a treasure” was hidden. Russell, Mauthner, Sharpe & Tidswell (1991) used a “window task”, by asking children to point to the empty box to deceive a competitor as to whereabouts of the chocolate. This paradigm is a version of the ToM task, rather than a task on compliance with moral rules. As long as deception of this kind is not about children’s own behavior and is not directly related to moral development, these studies will not be considered here.

The other (the “temptation-resistance”) paradigm have been used in order to study the “negation of wrongdoing” type of deception in children. Lewis, Stanger and Sullivan (1989) asked children to sit in a chair with their back to a small table and told that the experimenter was going to put out a surprise toy. The children were instructed not to peek, after which the experimenter left the room and the children’s behavior was videotaped through a one-way mirror. On return, the experimenter asked the child if he or she had peeked, and the negative response of the child who had peeked was counted as deception. Arsendorf and Nunner-Whinkler (1992) developed a version of this paradigm. In their study, children were encouraged to guess what kind of animal the experimenter hid under a scarf. After three unsuccessful trials, the experimenter left the room, and the child’s behavior was videotaped from behind a one-way mirror. Immoral behavior was defined as violating the rule (i.e., peeping under the scarf) and subsequently denying this in the post-test interview. Polak and Harris (1999) added a control condition to a modified Lewis et al.’s (1989) paradigm. In the prohibition condition, children were asked not to touch a toy in the experimenter’s absence, and in the permission condition, they were told that they could touch a toy. The higher rate of denial in the prohibition condition than in the permission condition ruled out the possibility that in the prohibition condition children lied unintentionally. Kochanska, Murray, Jacques, Koenig and Vandergeest (1996) employed experimental scenarios based on the same principle: children were either prohibited to do some actions (i.e., touch some objects on the shelf) or asked to complete a task in a certain way and then left unsupervised. For example, in the Animal Game, the child was asked to identify three animals hidden under the cloth by touching with a tip of a finger but without looking under the cloth. In the Bird Game, the child was asked to select “Magic birds” marked by a sticker on the bottom from among a large number of birds, being allowed to touch no more than two. Finally, in the Dart Game, the child had to throw five darts into a ring on the floor placed very far away, not being allowed to leave a confined space outlined on the floor. Violations of these prohibitions were qualified as transgressions. In all these versions of the temptation-resistance paradigm, only the first (anonymity) and the second (freedom from empathy) criteria of the SFC situation were met, albeit sometimes inconsistently (for instance, in Lewis et al.’s study a mother remained in the room sitting with her back to the child). None of the above studies included a pre-test interview that alerted children to the fact that the game might become impossible to win if the agreed rules are complied with (awareness of consequences of being moral). It was therefore possible that some children transgressed on the rules (i.e., peeked) and still hoped that they would get the praise for the correct “guessing”. In none of the studies were children alerted to the perspective of being questioned about their performance if they did not comply with the rules (anticipation of having to cheat). The most important disengagement of inhibitory control failures from deliberate moral transgressions (analyzed in more detail later

in this paper) was not provided as well. Because of this, once children transgressed on the game's rules (i.e., peeked), then there was no way that they could avoid either lying or acknowledging that they broke the rules. This made it possible that children violated the game rules involuntarily and then were bound to lie in order to cover their transgressions. In other words, the earlier studies of cheating behavior dealt with children's unintentional cheating, rather than with their capacity to use their TDT-minds for creating and presenting the T-duplicates about their behavior.

In order to meet all the three criteria of the SFC situation, a new version of the temptation-resistance paradigm was developed – the “bucket and balls” (B&B) task. In the warming up session, children were taught to perform a manual task – to transfer three ping-pong balls from a bucket into a jar using a special L-shaped shovel, without touching the balls with their hands (for the original research reports, see Subbotsky, 1983, 1993). The correct performance on this task required some training, but it was quite manageable even for 3-year-olds, as long as the bottom of the L-shaped shovel was slightly concave.

In the first experimental condition (verbal behavior in an imaginary situation), children were individually told a narrative of a character (a boy) who was instructed by an adult to do the task. The character was promised a praise only if he successfully completed the task. If the task remained uncompleted or was completed in the wrong way (moving the balls with the hands), the character was told that he would not be given the praise. The adult then left the room and allowed the boy to work on the task unsupervised. The character tried hard to do the task right but failed. He then decided to transfer the balls with his hands and, when the adult returned, said that he had done the task in the right way. The adult said “Good boy”, gave the character his praise and the boy returned to his classroom. Participants were asked to repeat the story and then to judge the character's actions and say what would they do in his place.

This condition was multipurpose. First, it tested whether the children were aware about the rules of decency and honesty and considered these rules to be directives for their own behavior. Second, the children were given hints (a) that the task they had been trained on can be impossible to win, (b) that abstaining from a violation of the task's rules might have a price to pay (not getting the praise), and (c) that violating the task's rules would have to be backed by cheating if the character wanted to win the praise.

In the second condition (free choice, no direct surveillance) children were individually offered the opportunity to do the task and left alone in the room. The child's behavior was observed through a screen, of which the child was unaware. Soon, the child discovered that it was impossible to transfer the balls with the scoop, because an identical but slightly convex scoop surreptitiously replaced the concave scoop used in the training session. The differences between the B&B paradigm and paradigms used in the earlier research are summarized in Table 1.

Minding the distinction between moral and conventional rules (Nucci&Nucci, 1982, Smetana, 1981; Turiel, 1983), I would like to emphasize that, as in other experimental paradigms used in the studies of “negation of wrongdoing” lying, the B&B situation involves both types of rules. Whereas the rule “not to touch the balls with one's hands” is a social convention between a child and an experimenter, the rule “not to lie” when asked about whether the transfer had been made in the right way is a moral rule, because saying that something was done in a way it actually wasn't is a distortion of truth. The methodical advantage of the B&B task over the earlier version of the “resistance to temptation” paradigm is that, in the B&B task, violation of the conventional rule (i.e., moving the balls with the

hands) is disengaged from violation of the moral rule (i.e., cheating to an adult): even if a child unintentionally touched or moved the balls with his or her hands, he or she still had the opportunity to undo the action and thus avoid being questioned about the way he or she completed the task.

On the base of the TDT-mind theory it was expected that children with the T-minds would move the balls with their hands, and then acknowledge this to the experimenter (Group 1). Children with the TDT-minds would make attempts to transfer the balls with their hands, thus preparing the basis for the “negation of wrongdoing” story, but then they would split into three groups.

Table 1. The differences between the tasks earlier employed for testing children’s deception about their own behavior and the B&B task

	Earlier employed	The B&B task
Awareness that complying with task’s rules will entail personal cost	Not provided	Provided
Awareness that violation of task’s rules will have to be backed by cheating	Not provided	Provided
Inhibitory control component and moral choice component	Not disengaged	Disengaged

Children who lacked intrinsic moral motivation would either leave the balls in the jar and lie to the experimenter (Group 2), or return the balls into the bucket and tell they could not manage (Group 3). This latter group would do this not because they went for a moral choice (what it superficially looks like), but because of the fear that their transgression and lying would be somehow discovered by the experimenter. The internalized (or imaginary) external control provides that these children comply with the game’s rules. The fourth group of children would show the same pattern (attempting transgression and then returning the balls into the bucket), but for a different reason: they would be driven by intrinsic moral motivation not to cheat. Lastly, the fifth group of children would not even try to touch the balls with their hands, thus showing both the high level of inhibitory control and intrinsic moral motivation. These predictions are summarized in Table 2.

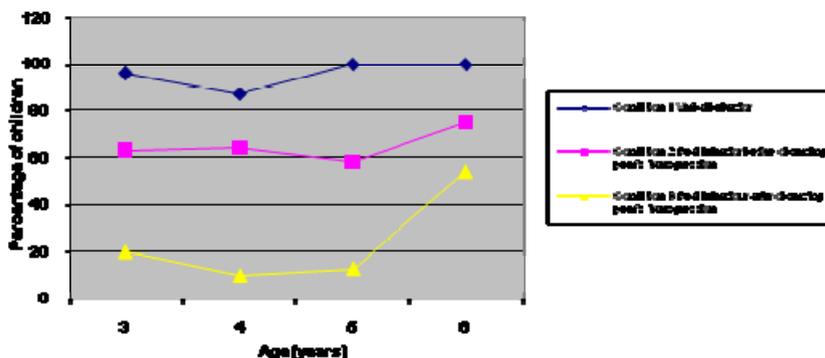


Figure 1. Percentage of children who complied with the moral rule in the B&B task as a function of age and experimental condition.

Table 2. Expected patterns of children’s behavior in the B&B task

Behavioral pattern	TDT-mind				
	Absent	Present			
		Intrinsic moral motivation			
		Absent		Present	
	Group 1	Group 2	Group 3	Group 4	Group 5
Move the balls with their hands	v	v	v	v	
Move the balls back to the bucket and leave them there			v	v	
Cheat to the experimenter		v			
Acknowledge moving the balls with their hands	v				
Don't touch the balls with their hands					v

Participants were 136 children from a suburb in Moscow, aged 3 years to 6 years 11 months and coming from mixed socioeconomic background. Only a few 3-year-olds displayed the T-mind pattern of behavior (Group 1). They were excluded from the subsequent analysis. The results of the performance of children with the TDT-minds in conditions 1 and 2 of the experiment are shown in Figure 1 (upper and middle lines).

As predicted, in condition 1, nearly all children disapproved of the character's actions because he broke his promise and lied. All these children also told that they would not try to touch the balls with their hands and lie. In condition 2, almost all children in some way attempted to use their hands in order to “help the scoop”. On average, around 60 percent of children in all age groups either left the balls in the bucket or brought them back to the bucket from the jar. The rest of the participants moved the balls from the bucket into the jar with the help of their hands and lied to the experimenter (Group 2). There were no marked gender differences observed.

In order to separate between the group of children with the TDT-mind who did not lie *because the internalized external control (surveillance)* prevented them from doing so (Group 3 in Table 1), and the group who displayed a similar pattern of behavior because they had *intrinsic moral motivation* (Group 4 in Table 1), each child who observed the moral rules in Condition 2 (including those of Group 5) participated in Condition 3 of the experiment. In this condition, a target child was left in the room with another child (the model, a former transgressor) who was asked to perform this task one more time. Sometime during the performance, the model moved the balls with his or her hands and, on the experimenter's return, lied. The model was then given the praise and sent back to the classroom. After that, the target child was offered an opportunity to give the task “another try” and left alone in the room.

The purpose of this procedure was to free the target child from the internalized (imaginary) external control. If, in the second condition, the child was anticipating that the adult would somehow find out about his or her transgression and so decided not to lie, now the child was sure that the adult would accept his or her version of the events presented in the

T-duplicate. This means that in Condition 3, children were free from the imaginary (internalized) surveillance. If the child with the TDT-mind, after observing the other child's transgression left undetected, moves the balls with his or her hands and denies doing so, then the child can be viewed as the one who, in his or her previous behavior, was driven by the internalized surveillance. If, however, the child still complies with the rules of the game, then the child can be classified as the one who has intrinsic moral motivation.

Eighty-one children, who belonged to the TDT-mind category and did not transgress in Condition 2 of the experiment, participated in Condition 3. The results (Figure 1, bottom line) showed that the percentage of children who did not transgress dropped significantly in all age groups, but the oldest one. This effect *demonstrates that even if children comply with moral rules in a situation in which direct surveillance is absent, this does not necessarily mean that the children have intrinsic moral motivation*. A significant increase in the number of children who opted for the moral choice in the SFC situation was observed among 6-year-olds as compared to younger children, but there were no significant differences between the numbers of such children found among 3-, 4-, and 5-year-olds.⁵

Interestingly, in concordance with the “social domain” theory, when the same children who cheated on the B&B task were tested in other situations in which an immoral choice could bring negative consequences for others, the children behaved differently. For instance, in the “distributive justice” situation in which a child had to distribute a prize of two attractive objects between himself or herself and the partner with the option to keep both objects, around 50% of 4- and 5-year-olds shared the prize. Similarly, in another situation where partner’s interests were involved – helping versus not helping a partner – children complied with the moral rule significantly more frequently than in the B&B situation (Subbotsky, 1993). This improved performance can be explained by the fact that in these situations children’s intrinsic motivation was helped by additional factors, such as moral emotions (empathy) and external control. Indeed, in the situations where peers’ interests were involved, children’s partners were not passive observers of the child’s behavior; rather, most of them actively encouraged the child to help or share. This explanation of the contrast between children’s performance on the B&B task and their performance on helping and sharing tasks receives support in the fact that when the experimenter remained in the room, almost none of the children aged 3 to 6 years cheated on the B&B task. On the other hand, when children of the same age groups were given an opportunity to anonymously donate to a good cause, the percentage of children who donated was about the same as in the B&B task (around 14%), despite the fact that in the pre-test interview 80% of children said that they would donate. Interestingly, Batson, Kobrynowicz, Dinnerstein, Kampf, and Wilson (1997) reported that when adults were given an opportunity to anonymously take advantage of their position in the situation of distributing unequally attractive tasks between themselves and their partners, only about 20 percent of participants complied with the rule of fairness, though the majority of non-compliers later acknowledged that what they had done was wrong. The authors explain the participants’ immoral behavior by “moral hypocrisy”— a special motive according to which “individuals want to appear moral while, if possible, avoiding the cost of actually being moral” (Batson & Thompson, 2001, p.54). Further research showed that many participants initially want to be truly moral (i.e., to maintain their “moral integrity”), but this intention is

⁵ This experiment was reproduced in Czechoslovakia with Slovak children and yielded similar results (Pozar&Subbotsky, 1984).

overpowered by stronger self-interested motives (“overpowered integrity”) (Batson, Tsang, & Thompson, 2000). In the B&B task, children showed similar patterns of behavior: some of those who had promised to comply with the game’s rules, violated the rules immediately after the adult left the room, waited for the adult to come back and lied without hesitation (“moral hypocrisy”), whereas other children two or three times moved the balls forth and back with their hands before they decided to lie, thus showing a pattern consistent with the “overpowered integrity”. The above data suggest that children’s behavior in the B&B situation can be generalized to more common aspects of moral lives of children and adults, such as donation or distributional justice.

In other words, it can be assumed that in moral domains other than cheating, the TDT-mind works in a similar way: when confronted with a moral challenge in the SFC situations, people with the TDT-mind but with no intrinsic moral motivation don’t comply with moral rules if their non-compliance remains anonymous, and subsequently deny non-compliance. In the non-SFC situations of moral challenge, many people still don’t comply with moral rules, but in order to excuse their immoral behaviors they use mechanisms other than creating the “negation of wrongdoing” stories. Bandura (1999, 2002) provided a detailed description of those mechanisms, such as moral justification of reprehensible conduct, diffusion of responsibility, minimizing detrimental effects and consequences of immoral acts, and dehumanization of victim.

Still, up to 20% of younger children and 46% of 6-year-olds in this study complied with the game rules, indicating that they were driven by intrinsic moral motivation. This kind of motivation can be viewed as the beginning, or an early form of what in the social cognitive theory is called “moral agency” – a mechanism through which “moral reasoning is translated into actions through self-regulatory mechanisms rooted in moral standards and self-sanctions” (Bandura, 1999, p.2). According to Bandura (1991), neither moral thinking nor cognitive conflict can provide a link between moral reasoning and conduct; for such a link to be possible, moral agency must emerge. In the course of moral development, the emergence of moral agency can provide gradual substitution of external sanctions and demands by symbolic and internal moral motivation. However, the mechanisms for the exercise of agency that social cognitive theory provides (such as “self-belief of efficacy”, “goal representations”, “anticipated outcomes” – Bandura, 1989) are properties of the mature mind. The question remains open as to what kinds of mechanisms can underlie operation of moral agency in its early stages of development, including preschool and elementary school children. The TDT-mind theory suggests a possible answer to this question.

Regarding children’s rule complying behavior in the B&B situation, this behavior was obviously not motivated by external demands. The feeling of empathy could not drive their actions either as soon as all the children were aware that the experimenter had the whole bag full of postage stamps. The explanation that in these children external control simply was more strongly internalized than in other children looks unlikely as well. After witnessing the peer’s “negation of wrongdoing” cheating behavior that the adult takes for truth, children of this age understand that they too can deny wrongdoings and get away with this. This implies that the internalized surveillance can no longer keep the children from lying. The most likely explanation of children’s non-cheating behavior in this situation is that the children identified themselves with their positive moral self-images. The fact that this identification was most evident among 6-year-olds is consistent with the recently reported data about a significant shift that occurs in children between the ages of 5 and 7. According to Lagattuga (2005), 7-

year-olds and adults attributed negative emotions to transgressors and positive emotions to people who comply with the rules that run against their desires significantly more frequently than did 4- and 5-year-olds. This data could signify that at the age of about 6 years children begin to identify themselves with their positive moral self-images, and this makes them increasingly aware that they would feel bad if they were to go against the rules albeit in a situation in which their transgression is likely to remain unnoticed. Studies of children's autobiographical memory also suggest: it is only since 6 years of age that children's mental representational abilities and their eyewitness memory could be considered to be similar to that of adults (Templeton & Wilcox, 2000).

The question still to be answered is which of the two possible mechanisms for this identification (the cognitive categorization mechanism or the emotional identification mechanism) is to be preferred? It is also possible that both mechanisms contributed in making the children go for a moral choice.

Indirect evidence for the cognitive categorization version comes from some children's controversial behavior – refusal of the praise. Some children who transgressed, deceived, and got the praise, suddenly refused to accept the praise (that resembles the so-called “phenomenon of a bitter candy” described earlier by A. N. Leontiev, 1977). This can be interpreted as a result of a cognitive clash between what the child knows he or she was doing (lying to an adult) and what he or she was getting (a praise for having done the task in the right way). In its full version, this phenomenon was observed only in a few children. Many children, however, displayed another pattern of behavior that could be viewed as a mild version of the above phenomenon. This was most children's unwillingness to remain in the experimental room after they deceived and got the praise. Even when they were encouraged by the experimenter to stay (“Let's read a book together”, “Let's play some games”), the children were eager to leave the room as soon as possible, coming up with various excuses (“I need to go to the bathroom”, “My friends are waiting for me”). This pattern of behavior (refusal of communication) was in sharp contrast to the children's behavior in the warm-up session when they were happy to stay in the experimental room as long as possible, as well as to the behavior of children who did not lie and who always wanted to stay in the room for some time.

In the literature, there is mixed evidence against and for the cognitive categorization scenario for the age involved in this study. Nunner-Whinkler and Sodian (1988) showed children a vignette featuring a child character that wants to steal his classmate's possession and then decided against this. When asked what the protagonist would feel, most 4- and 6-year-olds predicted that the protagonist would feel bad after following the rules because he failed to fulfill his desire. In contrast, a significantly smaller number of 8-year-olds made such a prediction. This and other research (Arsenio & Kramer, 1992; Barden, Zelco, Duncan, & Masters, 1980; Keller, Gummerum, Wang & Lindsey, 2004) showed that children younger than 8 years view rule breakers as happy and rule compliers as unhappy. The understanding that a rule breaker is likely to experience mixed emotions develops only in older children and adults. If, in the present study, the complying children cognitively categorized themselves with their positive moral self-images, then they should be expected to be able to predict that they would feel bad after breaking the moral rule. Yet, the above research shows no evidence that 3- to 6-year-old children are able to make such a prediction. However, a more methodologically advanced study showed that children as young as 4- and 5-years were yet

sensitive to the fact that breaking a rule undermines the good feeling that results from fulfilling one's desire (Lagattuga, 2005).

The evidence for the emotional identification version, indirect as well, comes from a study in which various parenting styles were related to children's preferences to go for the moral or the self-interest choices in the B&B situation (Subbotsky, 1992, 1993). This study showed that most children whose parents showed the authoritarian-rejecting pattern of parenting style as assessed by a multi-factorial projective questionnaire (treating children in an emotionally cold way, making emphasis on punitive measures, devaluing children's achievements) cheated. In contrast, most children whose parents exhibited the subjectively favorable pattern (emphasizing positive emotions and trust, respecting children's needs, combined with posing reasonable demands on their achievements) opted for the moral choice. This was in concord with the data showing that parenting styles that stress respect of children's opinions and emotional support facilitates advanced moral reasoning in children (Walker & Hennig, 1999).

In order to test the "cognitive categorization" versus the "emotional identification" scenarios, an intervention study was conducted with two groups of children: 210 children aged from 3 to 5 years were in the younger group, and 220 children aged 5 to 7 years were in the older group (Subbotsky, 1993). In the pretests (the B&B task, Conditions 2 and 3), all the children broke the game rules and lied. Both groups were divided into six subgroups, with approximately equal numbers of participants in each. Children in these subgroups were then individually subjected to various kinds of intervention treatment, after which they were post-tested in the same B&B task.

In the first two intervention conditions (the "demonstration of a positive model" treatment), children were given an opportunity to observe another child (Condition 1) or an adult (Condition 2) performing the B&B task. On discovering that the task was impossible to fulfill, both the peer and the adult models opted for the moral choice. This treatment was expected to accentuate the cognitive dissonance between the participants' private and public images and prompt them to go for a moral choice in the subsequent retest.⁶

In Conditions 3, 4, and 5, children were involved in various treatments that accentuated the experimenter's trust and respect for their needs and their positive moral self-images. In Condition 3 the experimenter "forgave" the child's "mishap", in Condition 4 the child was asked to function in the role of a moral instructor for other children, and in Condition 5 the experimenter for two months systematically involved children in all sorts of emotionally positive interactions. Condition 6 was a control one – children in this group did not receive any treatment but were retested two months after the pretest.

The results indicated that in Conditions 1 and 2 (observation of a positive model) the number of children who made moral choices in the posttest increased only insignificantly as compared to the increase in the control groups. In contrast, Conditions 3, 4 and 5 yielded a significant increase in the number of moral choices. As predicted by the "emotional identification" scenario, in Condition 5 younger children showed an increase in the number of moral choices only if tested by the person who was involved in the emotionally positive interaction, but not if a stranger tested them. Unlike younger participants, older children

⁶In some studies of altruism, a positive effect of observing an altruistic model on children's prosocial behavior was reported (Bryan, 1971; Harris & Samerott, 1975; Wagner & Wheeler, 1969). In contrast to this study, however, in the studies of altruism children were tested in situations in which their choices could have been affected by the anticipated imaginative control and the feeling of empathy.

showed a significant increase in this type of behavior with regard to a stranger as well. This can be interpreted as an indicator that in older preschoolers the emotional identification with their positive self-images resulting from the intervention was transferred from the person who conducted the intervention (the figure of children's affection) to a stranger. Viewed in general, the results of the intervention experiment are in favor of the emotional identification scenario. They supported the assumption that trust, forgiveness and respect to children's personal needs facilitate the process of children's identification with their positive moral self-images which results in the emergence of intrinsic moral motivation.

Another prediction that can be made on the basis of the TDT-mind theory of moral development concerns the relationships between moral behavior and inhibitory control (IC). In research, studying this relationship produced contradictive results. Kochanska et al. (1996) found that children who had high IC at an earlier time of testing (2.2-3.4 years) were more likely to resist the temptation to cheat at a later time of testing (3.5-4.6 years), thus demonstrating a positive relationship between IC and non-transgression on moral choice tasks. However, Carlson, Moses and Hix (1998) reported a positive relationship between IC and cheating in 3- and 4-year-olds on a deceptive task: children with high IC were more successful deceivers. Considering these data, it appears that IC skills are positively correlated with both compliance and non-compliance with moral rules.

In the light of the TDT-mind theory, the apparent contradiction between the above data can be explained. The explanation is that in the above studies, the tasks in which children were required not to cheat were not the SFC tasks; rather, those tasks tested children's capacity to inhibit the impulse of breaking a conventional rule. Obviously, in these kinds of tasks the children who have a better developed capacity for inhibitory control can be expected to show a stronger tendency to comply with the prohibition (i.e., of not going outside the confined space), than the children with less developed capacity for inhibitory control. Likewise, in the tasks that required children to cheat (i.e., inhibit the impulse to show to the box in which an object really is) children with better developed inhibitory control would again do better than children with less developed inhibitory control.

However, if the task were a free moral choice kind that allows children to deceive about their own behavior, then the direct link between children's capacity for IC and their performance on the moral task would no longer exist. The B&B task is just this kind of task. Unlike the moral choice tasks in which violation of a prohibition inevitably led to subsequent cheating, in the B&B task the children who violated the prohibition (i.e., touched the balls with their hands or even moved the balls into the jar) could still avoid lying by leaving the balls in the bucket or moving them back into the bucket. In other words, the B&B task enabled children to make their moral choice decision independently from their IC capacity. This enables one to explore children's level of IC and their moral motivation as two independent "within" factors: the performance on the low-level IC component of the B&B task can be assessed by the number and latency of touches, and the performance on the high-level moral component of the same task can be assessed via the general patterns of behavior. For instance, on the higher-level component of this task (moral choice level), children who moved the balls with their hands as soon as they discovered that the shovel did not work, left the balls in the bowl and cheated were awarded the lowest moral motivation score of 0. These children demonstrated no conscious intention to comply with their verbal moral judgment. In contrast, children who did not touch the balls with their hands were awarded the highest score of 4. This behavioral pattern revealed that the child had no conscious intention of cheating.

All the other patterns of behavior received scores between 0 and 4: these patterns revealed various degrees of hesitation between compliance and non-compliance with the moral rule.

One further feature of the B&B task that distinguishes it from the moral choice tasks employed in earlier research is that in the B&B task the IC component is subordinate to the moral choice component and receives feedback from this component. If children, once they discovered that the balls could not be moved without violating the rule, decided that they would not go for deception, this decision made touching the balls unnecessary, thus enhancing children's resistance to the temptation of touching the balls. In other words, the children's decision on the *higher-level component* of the B&B task (i.e., intrinsic moral motivation) can affect their decision on the *lower-level component* of the B&B task (i.e., inhibitory control). This up-down link may *allow children who acquired intrinsic moral motivation to override their impulse to touch the balls and perform well on the IC sub-level, even if their actual IC skills are relatively poor*. On this ground, it was predicted that (a) there will be no a significant correlation between children's performance on the higher-level of the B&B task and their performance on independent IC tasks, however, (b) there will be a significant correlation between the higher-level component of the B&B task (i.e., moral motivation) and the lower-level component of this task (i.e., inhibitory control).

In order to test these predictions, eighteen 4-year-old and twenty-one 5-year-old children attending schools at Lancaster (England) were tested on the B&B task and on the four IC tasks: *Rattle/Car Task*, *Day / Night Task*, *Cup / Saucer / Cube task*, and *Statues Task* (Harrison & Subbotsky, 2007). For instance, on the *Rattle/Car Task*, the child and the experimenter each had a rattle and a toy car. Children were first trained to imitate the experimenter's action that were performed in accord with the objects' usual functions (i.e., shaking the rattle, moving a car on the table – 20 actions altogether), and then the children were asked to switch to the "non-imitation game": they were asked to shake the car whenever the experimenter rolls her rattle across the table, and roll their rattle across the table whenever the experimenter shakes her car (20 test actions were then administered). Children's performance on both the lower- and higher-level components of the B&B task and on the IC tasks was rated in accordance with the standard scoring schemes.

In this study patterns of children's behavior were very similar to those in the study conducted earlier in Moscow. Out of the thirty-nine children tested, thirty-seven declared that they would not touch the balls with their hands. However, 54% of these children moved the balls with their hands and denied having done so. The rest of the children did not touch the balls with their hands, touched the balls but in the end left them in the bucket, or moved the balls in the bucket with their hands but returned them back into the bucket and left them there.

As predicted by the TDT-mind theory, there was a significant correlation between performance on the higher-level (moral motivation) component of the B&B task and the lower-level (inhibitory control) component of the same task, whereas all correlations between the higher-level component of the B&B task and independent IC tasks were not significant (Table 3). This supports our assumption that inhibitory control, along with other abilities, is a necessary condition for the development of the free moral action, but it cannot explain or predict the child's decision in the situation of free moral choice.

Table 3. Pearson correlations between scores on the two levels of the B&B task and the IC tasks

	RATCAR	DYNIGHT	CUPSAUC	STATUE	L2B&B
Level 1 B&B	.150	.269	.090	.301	.870
Sig. (2- tailed)	.363	.067	.585	.062	.001
Level 2 B&B	.129	.190	-.064	.139	1
Sig. (2- tailed)	.435	.246	.698	.398	.

It can also be expected that for children it would be easier to practically use their TDT-minds for deception than to understand the work of the TDT-mind if this work were presented to them as a narrative about deception. This expectation follows from the earlier reported data according to which children can demonstrate competence in a practical task, and yet cannot reason about the same task verbally. For instance, studies on children's metalinguistic awareness showed that young children spontaneously correct their speech errors, and yet do not possess the explicit knowledge necessary to answer questions on the rules of language correctly (Karmiloff-Smith, 1986). In order to examine this expectation, 5- and 8-year-old children were individually shown 4 pictures that presented a character performing the B&B task (Fig.2, top left), failed to do it in the right way (Fig.2, top right), moved the balls with her hands while being unobserved (Fig.2, bottom left), and in the final episode was telling something to the adult (Fig.2, bottom right) (Honeyman, 2003). Participants were explained the rules of the game (like in the real B&B task) and then asked a series of questions in order to find out if they understood the nature of the TDT-mind.

For instance, when the child was shown Episode 4 (Fig.2, bottom right), he or she was asked "How does Mary think she moved the balls?" (understanding of the tape question), and "What is Mary telling the man about how she moved the balls?" (understanding of the doubled tape question). Unlike 8-year-olds, 5-year-olds exhibited poor understanding of the "negation of wrongdoing" type of lying. For example, to the above questions most children answered that the character knew the true story (tape) but was telling the truth (uncorrected doubled tape), thus utterly missing the point that it made no sense for the character to move the balls with her hands and then acknowledge this to the adult. Provided that in earlier research more than 80% of 5-year-olds (and even 3-year-olds) deceived the experimenter on the B&B task, we concluded that in most children their capacity to create and use the "negation of wrongdoing" deceptive story in a practical B&B task is not accompanied with the understanding of the same type of lying when it is presented to the children in the shape of a narrative. These data also suggest that inferring the protagonist's deception about her own behavior (the "negation of wrongdoing" type of lying) from the protagonist's actions is a more difficult task than inferring the deception about external events from the protagonist's utterances which most 5-year-olds were able to do (Lee et al., 2002; Wimmer & Perner, 1983).

A possible explanation of why it is more difficult to understand lying in the B & B situation than to lie in the real B&B situation is that the former requires more cognitive sophistication than the latter. Indeed, in order to deceive about their own actions in the

practical situation, children only have to understand false beliefs of the first-order (i.e., that the person who is being deceived will have a false belief about the children's actions). In contrast, inferring the "negation of wrongdoing" lying from the protagonist's actions implies the grasp of second-order beliefs (i.e., beliefs about beliefs). Indeed, in order to infer that the girl in Figure 2 is lying, children have to understand that the girl believes that the adult she is lying to will have a false belief about her beliefs. This implies that a positive correlation should exist between understanding of the "negation of wrongdoing" deception and understanding of second-order beliefs.

In order to test these predictions, 5- and 6-year-old children were tested on the above "B&B understanding" task and on two second-order beliefs tasks ("ice-cream" and "birthday puppy") taken from Sullivan, Zaitchik and Tager-Flusberg's (1994) study (Ungen, 2004). As predicted, significant correlations were found between children's understanding of deception in the B&B task and their understanding of second-order beliefs.

Altogether, the above data suggest that children first start using their TDT-mind in order to lie about their own behavior, and only later do they become capable of reflecting upon their TDT-mind as the tool for deceiving others.



Figure 2. Drawings used in the understanding of the TDT-mind test.

THE DEVELOPMENT OF MORAL ACTION IN CHILDREN: A SUMMARY

According to the TDT-mind theory, the mind of an infant is a one-dimensional kind of mind. Although the cognitive world of a young infant appears to be rather complex (Bower, 1974; Onishi & Baillargeon, 2005), the infant's behavior remains "un-taped" in the infant's mind due to the lack of language.

The mind becomes the T-mind when the child develops the capacity to create simple narratives, which occurs approximately at the age of 2 – 2.5 years. Starting from this age, children become able to create simple stories that reflect, although imperfectly, the succession of events of their everyday lives. At the same time, children of this age acquire rudimentary notions of moral rules. Some of these notions come through the caregivers' demands, and others are absorbed from stories and other narratives with moral content (like “Snow White” and “Little Red Riding Hood”). At this stage, moral norms become personally significant for toddlers, as the children's emotional reactions to mishaps and transgressions show (Cole et al., 1992). Yet, due to the lack of an appropriate level of self-control and other cognitive prerequisites of the TDT-mind, children are not yet capable of using the knowledge about moral norms for creating T-duplicates.

The T-mind becomes the TDT-mind at some point between 3 and 4 years of age. At this age, children start enjoying a number of new cognitive achievements: a more powerful capacity for creating narratives, an increased level of self-control, and at 4 years – the capacity for representing views and false beliefs of other people. On the basis of these cognitive advances, children discover a new opportunity for themselves – to create a shield that could protect their self-interests if these interests conflict with the interests of individuals on whom the children depend (parents, caregivers). In this way, children become capable of and interested in creating special edited versions of their past behavior – the T-duplicates. From now on, the child's “story of life” splits into two parts: the T-story (a private image of himself or herself) and the T-duplicate story (an image created for the outer use). In those cases of the “conflict of interests” in which the child of 3-5 years of age thinks that he or she can transgress and still appear moral by presenting the adults with the T-duplicate story, the child would go for it. Through this, the child creates a positive moral image of him or herself but does not yet identify him or herself with this image. The split between the private and public images creates a special space in the child's mind – the space of free moral choice. In this space, the child is free to go for a moral option but chooses not to do so.

The next step in the development of the moral action comes at around 6 years of age, when there is a marked increase in the number of children who go for a moral option in the SFC situation. This can be a result of either cognitive categorization or emotional identification of the child with his or her positive moral self-image. Although the experimental data presented in this article are in favor of the “emotional identification scenario”, the possibility of the “cognitive identification scenario” cannot be utterly overruled. For the “emotional identification” to work, it is necessary that the child's caregivers treat him or her in a trusting and loving way, respect the child's interests and his or her self-esteem, putting at the same time reasonable demands on the child's achievements. It is also important that the caregivers show their disapproval of deceptive behavior without being too directional and “pushing” in their disciplinary techniques and without making a special stress on surveillance and “unmasking” the child's deceptions. If the child is lucky enough to have this kind of treatment, then the trust and love to the caregiver is likely to be transferred to the child's positive moral self-image. The positive moral self-image that the child initially created in order to protect his or her self-interests, thus becomes the image with which the child identifies himself or herself. This results in the emergence of the first form of intrinsic moral motivation.

As far as it concerns the further development of intrinsic moral motivation in adolescents and adults, it is possible that children's identification with their positive moral self-images

that initially occurs in the area of deception about their own behavior is later generalized to other areas of moral life, such as helping, sharing or donating. Together with the increasing cognitive mediation and appropriation, this process can gradually result in what in adults is called “moral identity” (Blasi, 1983, 1993; Colby & Damon, 1992), “moral integrity” (Batson & Thompson, 2001) and “moral agency” (Bandura, 1989, 1991). As a result of religious education, the authority of loved parents, which underlies the children’s autonomous respect to moral norms, in adults can be replaced by the authority of God. Ever since the Kantian claim of the existence of the “categorical imperative”, there has been an ongoing debate over why some people are able to act for the sake of “goodness itself”. The popular answer to this difficult question by reference to evolutionary benefits of unselfish behavior (Dawkins, 1976, 2007; Stenger, 2007) has a plausible alternative in the hypothesis that, subconsciously, some people, including atheists, still believe that following “goodness itself” pleases God (Subbotsky, 2011). It is also possible that in some children’s later life this identification with their positive moral self-image never occurs. These children can still grow into moral individuals, but in these individuals their compliance with moral rules needs support from external and internal incentives, such as empathy or surveillance; if these incentives are not strong enough, phenomena such as “moral hypocrisy”, “corrupted integrity” (Batson & Thompson, 2001) or “moral disengagement” (Bandura, 1999, 2002) are likely to emerge. The evidence shows that, under certain conditions adolescents and adults violate moral rules (Bandura, 1999, 2002; Batson, Thompson, Sueferling, & Strongman, 1999; Batson & Thompson, 2001; Bersoff, 1999; Corey, 1937; Freeman & Aatov, 1960; Hartshorne & May, 1928/1930). It can be safely assumed therefore that the process of the individual’s identification with his or her positive moral self-image is never complete.

In conclusion, I would like to emphasize that the TDT-mind theory illuminates only one line in the child’s moral development – the emergence of the first form of intrinsic moral motivation and the role that the narrative function of language plays in it. Other lines of moral development go in parallel: the development of moral motivation as a function of social domains (Grusec & Goodnow, 1994; Nucci, 2001; Turiel, 1998, 2002), the cognitive elaboration of empathy (Hoffman, 1988), and the development of various motives of prosocial behavior (Eisenberg & Fabes, 1998). In other words, the moral development of a child is a complex process that can only be accounted for in a wide range of interdisciplinary studies. Nevertheless, I believe that the development of the free moral action can be viewed as a prototypical case for the development of intrinsic moral motivation in other domains of moral functioning. In perspective, the TDT-mind theory can account for the common developmental root of a range of phenomena (such as moral agency, internalization of moral values, moral integrity, moral identity, as well as moral hypocrisy, corrupted integrity, and moral disengagement) that currently are viewed and studied as separate entities.

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