The relationship between generosity and Theory of Mind in 4 to 6 year old children.

Are children with Theory of Mind less generous than children without Theory of Mind?

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Preface

This study is a replicate of Cowell's et al. 'The curious relation between Theory of Mind (ToM) and sharing in preschool age children' 2015. Reinier Vuylsteke and Dirk-Jan Wessels, both students at the Erasmus University Rotterdam collected the data for this study.

The data is used by both Reinier and Dirk-Jan, but Dirk-Jan Wessels focussed on children with and without siblings, and Reinier Vuylsteke focussed on whether there are differences in the relationship between ToM and generosity in children who are the youngest of the siblings or the oldest.

None of the text is directly taken from Cowell's study or from any other articles.

The format of the tables in chapter 4 are copied from the article by Cowell et al., but this study extended Cowell's et al. study by statistically testing if there is a difference in generosity between children who failed the false belief test and children who passed the test. SPSS was used for the data analysis.

This thesis helps the writer to get insights in the behaviour of children in whether ToM has an effect on sharing and how the children share. I would like to thank Professor W. Verbeke, the two primary schools in Rotterdam, and the parents of the children who participated in the study. Last but not least I would like to thank the children who participated in the research.

Content

Abstract

Humans are a social species and moral evaluations and pro-social behaviour are strongly interconnected from a young age. In the first years social skills develop rapidly. In different phases in these first few years, multiple personalities and kills are developed.

As written in the Preface, this study replicates Cowell's et al. study, but researches additionally also the possible impact of the family composition in terms of siblings on the relationship between generosity and ToM.

A dictator game and a false location task were set up to examine this relationship and 109 Dutch children participated in the test. The 109 children are from two primary schools in Rotterdam.

Cowell et al. suggest that there is a curious relation between generosity and ToM: children who failed the test for ToM (the false location test) share on average more resources than children who passed the test. (Cowell J. M., Samek, List, & Decety, 2015)

This current study proves however that ToM and generosity are not influenced by each other in the sample for Dutch children between 4 and 6 years old. Therefore, there is no curious relationship between sharing and ToM in this sample of Dutch children.

More research is recommended in order to make a study which includes primary schools of both high and low socioeconomic milieus, because this can be of influence on the outcome.

The difference between this paper and Cowell's et al. paper might be due to the fact that Cowell et al. researched children from a low socioeconomic milieu whereas this current study researched children from a high socioeconomic milieu.

The conclusion of this study is that there is no relationship between either ToM and generosity or siblings and generosity.

1. Introduction

The human race is a social species and from childhood, moral evaluations and pro-social behaviour are strongly interconnected. In the first few years of a human's life, social skills are developed rapidly in different phases. A research suggests that the first start of altruism and basic sense of fairness are found in infancy (Schmidt & Sommerville, 2011). Another research revealed that children have fairness expectations in a context-sensitive way when they are between 1 and 2 years old. (Sloane, Baillargeon, & Premack, 2009).

When children become between 3 and 5 years old there start to become a change in ethical stance in (Robbins & Rochat, 2011) and the children are more concerned with appearing fair to others (Shaw, Montinari, Piovesan, Olson, Gino, & Norton, 2014).

Children between 3 and 8 years old also develop inequality aversion: most children between 3 and 4 years old act selfishly, but when they are between 7 and 8, they prefer have resource allocations that remove disadvantageous or advantageous inequality (Fehr, Bernhard, & Rockenback, 2008).

The difference in sharing behaviour when children become older are thus quite clear, but it is less is known what triggers the raise in generosity. Two researches suggest that some cognitive capabilities are at the roots of the raise in generosity in children including perspective taking, ToM, and executive function, (Smith, Blake, & Harris, 2013) (Takagishi, Kameshima, Schug, Koizumi, & Yamagishi, 2010).

Takagishi et al.'s paper describes that pre-schoolers who do not have ToM, show lower mean offers than children who have ToM. These results suggest that the ability to infer the mental states of other children has a large influence in children's fairness-related behaviour.

The study also describes that the ability in children to take the perspective of another human being is valuable in guessing what kind of offer the other human being would accept. So, preliminary relations between perspective taking and distributive justice reveal that the changes of ToM in human beings in their early life can coincide with higher expression of altruism or sharing (Takagishi, Kameshima, Schug, Koizumi, & Yamagishi, 2010).

During the development of ToM, selfishness is suggested to be an early developmental status. When children become in their middle childhood they begin to consider others human's perspectives. In this development, children begin to recognize and understand other human's wants for resources and therefore the children will be incentivized to share. A study with 98 children between 3 and 5 years from multiple cultures (Hispanics, Caucasian, and African American) reveal that children with ToM share fewer resources on average in the Dictator Game. However, in most cases, if there is no consequence for keeping all the resources to yourself, children with better ability to take the perspective of someone else might have the ability to recognize opportunities and situations for a strategic win at no cost to the child self. If this occurs, the children who passed the ToM question (false-belief test) are increased selective in sharing and thus, when there are no consequences for keeping the resources to themselves (hoarding) and cooperation is not expected, the children will share fewer resources with a human they do not know (Cowell J. M., Samek, List, & Decety, 2015).

Taken together, it is clear that generosity differences and develops between the first few years of a child and his/her late childhood. The underlying changes in a human that lead to this development are however less clear.

This paper is designed to research the effect ToM has on sharing (generosity) in children between 4 and 6 years old. Like Cowell's paper, because the studied children are at the optimal age level for variance in order to understand false-belief, instead of studying the ability of ToM and its influence to sharing (Takagishi, Kameshima, Schug, Koizumi, & Yamagishi, 2010), the children in the sample can be split into 2 groups: one group with children who passed the false location tasks and a group of children who failed this same test.

The hypothesis this paper studies is: ToM can either lead to (1) decreased sharing or (2) increased sharing.

Furthermore, this paper will also compare the mentioned hypothesis for three (sub)groups: (1) total sample, (2) children with siblings, (3) children without siblings.

2. Theory

This paper focuses mostly on ToM. In the last couple of decades studies on ToM, have grown rapidly. The first research on ToM is Premack and Woodruff's study: "does the chimpanzee have a ToM?"
The neuroscience field became interested and began to contribute in the research by picturing the human brain in different situations and tasks to be able to better understand the demanding of beliefs and intentions of other human beings.

Theory of Mind is described as the ability to link and connect mental stages like intents, desires, beliefs etc. from a person to another person so he/she understands that other's have beliefs, desires etc. which might be different from his/her own mental stages. Humans who are not able to link and connect the mental stages (so do not have ToM) can have developmental and/or cognitive mental impairment and they can have schizophrenia, attention deficit hyperactivity disorder, and/or autism. The results of this absence of ToM are that someone can have difficulties in perspective taking and this is also known as mind-blindness. Mind-blindness means that people who do not have ToM might find it difficult to see and understand situations and topics from another side of view than their own perspective. Therefore these people can have a hard time determining and understanding someone else's feelings and intentions and they find it hard to understand how the behaviour of others can be influenced by their own behaviour.
The connection between autism and a ToM deficit is from a research by Simon Baron-Cohen et al. The paper describes that children who suffer from autism do not have ToM and thus have a hard time with tests where the child is asked to understand someone else's beliefs. When they become older, they have a hard time assigning mental states to other people. (Baron-Cohen & et al., 1985)

So, ToM allows humans to assign thought, intentions, and desires to others and to explain actions and their own desires. This ability to assign (mental) states develops over the years and different people develop these abilities less or more effectively.

Empathy is a closely linked ability to ToM and it is stated as the recognition and understanding of the mind states of others, including their emotions, desires, and beliefs. Empathy is also stated as the ability to put you in the shoes of other people.
Premack's and Woodruff's study revealed that animals can assign knowledge and to other animals. Later studies revealed that human beings are also capable of developing these skills. (Premack & Woodruff, 1978) Simon Baron-Cohan states that a huge precursor of the development of ToM is the understanding of attention in other people. This ability can already be noticed in children between 7 and 9 months old.

Cowell's study on which this paper is based, suggest that there is a curious relationship between generosity and ToM: children who fail the test for ToM will share more resources (stickers) than those who pass the test for ToM.
This current paper replicates this study, but also researches another possible factor on this relationship: whether a child has siblings or not.
Distributive justice studies are done in order to test the generosity of the children and these studies with children are done with the forced-choice sharing games with a known confederate, the Dictator Game, and/or ultimatum/bargaining games. In the first mentioned study, children get two choices: share with another person or keep the resources. The amount of resources they share does not matter, only if the children share or not. A research done with this type of study by Fehr et al. found that altruistic sharing can be limited when children have the ability to have a natural incentive to keep the resources for him/her self (Fehr, Bernhard, & Rockenback, 2008). The ultimatum/bargaining test can measure the changes of the ability to share in children in relation with socially bargaining. In the test, children are requested to offer in terms of how many resources they are willing to give to other people and how many resources they want to hoard. Both children receive no resources when the other child participating in the test rejects the offer.

This paper is based on the Dictator Game. This way of testing the children is chosen as it can give a relatively unbiased outcome of sharing. In the Dictator

Game, the participants receive resources (6 stickers in this study) and are then asked if they would like to share their resources with another person, and how many of their resources they are willing to give.

A Dictator Game study at six schools in England for children aged four, six, and nine showed that children from a higher socioeconomic milieu and older children had more altruism. A note has to be made here: the largest part of the children showed altruism, even the four year old children. (Benenson, Pascoe, & Radmore, 2007). This study also revealed that generosity is influenced by extrinsic and intrinsic factors. Moore's results suggest that decisions for sharing in children depend on the relationship between the child and the receiver. Children are more willing to be generous to friends, less generous with people who are not friends, and make pro-social advances with people they do not know in situations when the cost to the child self is zero. (Moore, 1998)

3. Methods

Participants

This paper researched children between 3 and 6 years old (N = 109, average age = 59.2 months, Standard Deviation = 1.65 and n = 56 male). The children were recruited from two primary schools in a high socioeconomic milieu in Rotterdam.

As mentioned in the preface, Dirk-Jan Wessels and Reinier Vuylsteke tested the children themselves. In order to get enough respondents to replicate Cowell et al.'s test (N = 98 in their study), Dirk-Jan and Reinier contacted over 150 schools and day-nurseries in Rotterdam and Amsterdam. After countless rejections, two schools in Rotterdam were willing to help.

To give the parents of the potential participants on these schools an incentive, Dirk-Jan and Reinier added another letter to the letter the parents had to sign for the ERIM: for every child that participates, Dirk-Jan and Reinier donate 2,50 euro to Unicef. The letter to the schools is shown in Appendix 1.

After the testing days, Dirk-Jan and Reinier donated 272,5 euro and sent copies of the transaction to the participating schools.

Procedure

During school hours the children were tested. First they tested for ToM with the false-belief test and secondly sharing was tested during the Dictator Game. The participants were studied one at a time and outside their classroom.

The parents of the participating children approved that their child was tested. A letter with name, name of the child, age, and signature obtained the approval. An example of the letter to the parents for their approval is shown Appendix 2.

All participants gave a verbal assent with the ethical guidelines for testing children and the study was approved by the ERIM.

Measures

Theory of Mind:

The children see a doll, Pete/Kitty (the doll has a corresponding gender with the child) and Pete/Kitty has a tennis ball and puts it in a bucker or basket. Pete/Kitty then leaves the room and the children are introduced to another doll

that enters the room: Tiger/Puck. Tiger/Puck gets the ball out of the initial bucket or basket, and he/she puts it into the other hiding location and then Tiger/Puck leaves. Pete/Kitty enters the room again and the children are requested to answer the question, "Where will Pete/Kitty look for the ball?" Children pass the test when they answer with the initial hiding location, and the children who answer with the alternative hiding location fail the test.
The children who passed the test are assumed to have ToM and those who fail the test are assumed to have a ToM deficit.
Children could have gotten instructions/intelligence from their parents or other classmates and to reduce this possible bias, Reinier and Dirk-Jan switched the initial hiding location of the ball after every couple of tests.

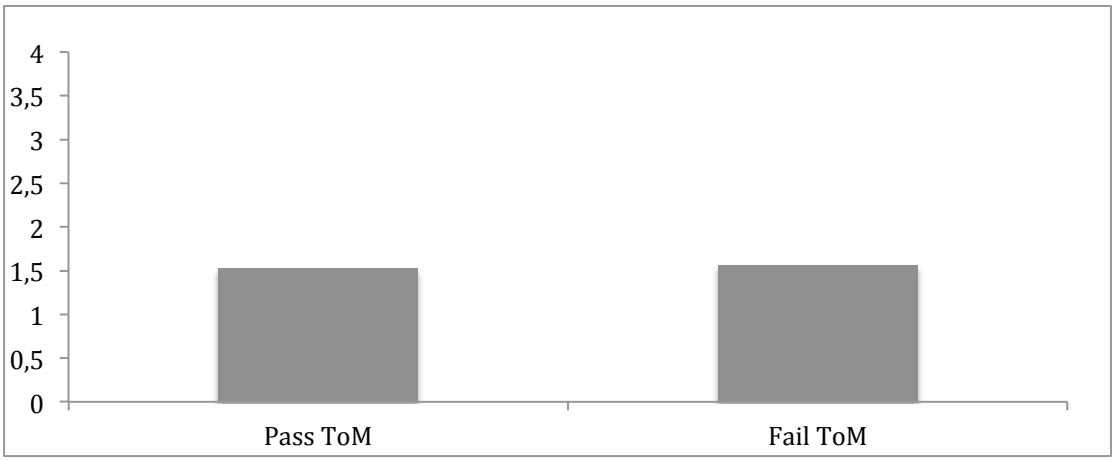
Dictator game:

The children receive 6 stickers and the researchers tell them that they can have the stickers. When the child does not like anyone of the stickers, he/she gets other stickers until he/she have six stickers they like. The researchers tell the child that there is another child (gender corresponds to the participating child) at school and this child cannot play this sticker game, and thus this child won't have any stickers. But, if the children would like to, they can give stickers to this other child. The children are shown one bowl for stickers they want to keep and a bowl for stickers they want to share with the other child. The children are asked to put the stickers in the bowls. The children are free to choose how they would like to divide the stickers over the bowls. The children are also free to put all the stickers in either of the bowls. Generosity is measured by the amount of stickers the participating child puts in the bowl for the other child.
In the dictator game, the children get questions so the researchers know if the children understand their task. Every child had to point at the bowl for the stickers they would like to share and the bowl for the stickers that the child could keep. If the child pointed at the bowls incorrectly, the child was told the instructions again.

4. Results

The average amount of candies shared per child in the study is 1.55 out of a six (skewness =0.714, kurtosis = -0.405). To test if there is a significant difference in generosity between males and females an independent sample t-test with generosity (dependent variable) and gender (grouping variable) is generated. The results indicate that differences in sharing between males and females are insignificant: (F (0.165) =0.686, *n.s.*). Children who failed the ToM-test shared on average 1.56 stickers (out of 6), while ToM-test passers shared on average 1.53 stickers. These results are pictured in figure 1.

Figure 1

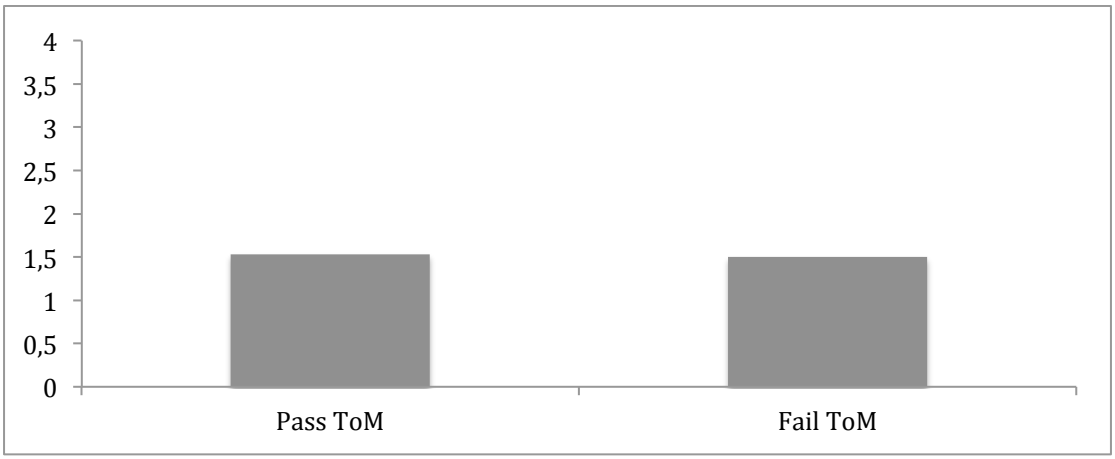


To test whether there is a significant difference in generosity between children who failed the ToM and children who passed the ToM test, another independent sample t-test was generated.

The results show that there is no significant difference in sharing between children who passed the ToM test and those who failed the test (F (0.026) = 0.871, *n.s.*).

This independent sample t-test was also generated on the two other subgroups: children with siblings (figure 2) and children without siblings.

Figure 2



Children with siblings who failed the ToM-test shared on average 1.50 stickers (out of 6), while ToM-test passers shared on average 1.53 stickers.
The results of the independent sample t-test show that there is no significant difference in sharing between children with siblings who passed the ToM test and children with siblings who failed the test.

11 out of the total sample of 109 children did not have siblings. All 11 children failed the ToM-test and therefore an independent sample t-test cannot be generated.
An independent sample t-test was generated to test whether there is a difference in average generosity between ToM-test failers with siblings (1.5) and ToM-test failers without siblings (1.91). (As there are no children without siblings who passed the ToM-test, we cannot test whether there is a significant difference between this group and the group of children with siblings who passed the ToM-test).
The result of this test indicates that there is also no significant difference in generosity between children who have siblings and failed the ToM-test and children who failed the same test but have no siblings.

5. Additional research

Recently, a study was conducted by a department of the Erasmus University in the field of ToM. In this study 132 salespeople (90% is male) were asked to fill in a questionnaire. The average age of the sample was 38.20 years (standard deviation = 7.39).

This current paper used this obtained data in order to examine whether this data supports the results from the children's data.

To analyse the data, a factor analysis was conducted and the resulting factors are: (1) initiate conversation, (2) ability to notice hints, and (3) ability to supply missing information.

The first factor, initiate conversation, is described as "*People low in ToM have difficulties in taking the initiative conversations."* This factor includes the following questions:

- *When I am in the elevator I can easily have a small conversation*
- *I always make certain that I influence the atmosphere of a sales conversation in a positive way*
- *When at a reception I can easily start a conversation e.g., about the weather*
- *During conversation I can easily motivate customers to talk about themselves such that I can understand their motives*
- *I find it difficult to talk to a customer that is not about the business*

The second factor, ability to notice hints, is described as "*People low in ToM process indirect info and hints not very easily, as they only focus on bare utterances and are notable to focus on the ostensive meaning of communications."* This factor includes the following questions:

- *I find it difficult to pick up the non-verbal signals of customers during a conversation*
- *At time I realize that I do not pick up the hints in sales conversations and a colleague has to tell me what happened in the conversation (only then do I realize what happened in the conversation)*
- *I do not know when I have to say something about customers and when I have to shut up about it*

The third factor, ability to supply missing information, is described as *"People low on ToM tend to have more difficulties in supplying missing information during a sales conversation that can strengthen the understanding of the listener and shape the right context for this purpose/conversation."* This factor includes the following questions:

- *When I realize that I do not possess the right amount of knowledge in a sales conversation I can easily add the right amount of information, then people do understand what I want to say*
- *When I realize that people do understand I always draw a broader frame such that words get a better meaning*
- *I always try to understand the context in which a customer is living and using examples I complete the missing information*

The dependent variable reciprocity is described as "*measurement if the salespeople care about others' problems and listens to them, but also shares their problems or other things."*

The question is whether these factors are correlated with reciprocity. The results of the tests prove that there is no significant relation between the factors who encompass ToM and reciprocity:

Correlation Factor 1 and reciprocation = 0.081 but significance is 0.429 > 0.05

Correlation Factor 2 and reciprocation = -0.125 but significance is 0.221 > 0.05

Correlation Factor 3 and reciprocation = -0.012 but significance is 0.909 > 0.05

Although this study was on adults and this current study focuses on children, the results of this study supports the outcome and conclusion of the study in which the possible relationship between ToM and sharing is analysed: the study on adults prove there is no relation between STOM and reciprocity. Overall, both studies fail to show a relationship on interpersonal metalizing abilities (ToM) and sharing on reciprocity. This means that ToM and sharing have nothing to do with each other and it is now proven for children between 4 and 6 years old and adults.

6. Conclusion

Former studies have proven the counterintuitive relationship between generosity and ToM in children from different cultures (Cowell J. M., Samek, List, & Decety, 2015). To examine whether this also counts for Dutch children from a high socioeconomics milieu, this study tested whether ToM has an influence on the generosity in this group. The false location task and Dictator Game were done in a sample of 109 children at two primary schools in Rotterdam.

This study also researched whether having siblings or not affected the relationship between generosity and ToM because a priori it was expected that children who have siblings are more often in situations where they have to share and they will therefore share on average more resources.

The results of this study prove that ToM has no significant effect on generosity of Dutch children between 4 and 6 years old: there is no significant difference in generosity between children who passed the ToM test and children who failed the ToM test.

Furthermore, this study proves that having brothers or sisters has no influence on sharing: there is no significant difference in generosity between children who have brothers and sisters and children who have no brothers and sisters. It must be noted here that none of the 109 children who had no siblings passed the ToM test. 11 children did not have siblings and they all failed the ToM test. Therefore it cannot be tested whether having siblings has an effect on the relationship between ToM and generosity.

7. Discussion

In line with Cowell et al.'s study on ToM and generosity, this study used a false-location task to test whether the participating children have ToM (Wimmer, 1983). It is not the argument whether a false-belief is completely covering all capacities of perspective taking (Bloom, 2000), yet the test discerns between children without basic early abilities of perspective-taking and those who have this ability at a young age. Furthermore, it can be that children did not understand the instructions of the ToM test or the guidelines of the dictator game properly, and this misunderstanding can lead to biases in the outcome of both tests. In order to reduce this bias as much as possible, this research included some questions during the tasks to be sure that participants understood the instructions properly. Before sharing the resources during the Dictator Game, the children pointed at the bowl for the stickers they would like to share and the bowl for the stickers they could keep. When a participant pointed at the bowls incorrectly, the instructions were told again.

Additionally, other researches with a variant of the Dictator Game for children prove that children have a sound grasp of the game (Benenson J. P., 2007) (Gummerum, 2010).

Overall, it seems less likely that results of generosity are biased due to misunderstanding of either the Dictator Game or the false-location test.

Another possibility that might be a source for a biased outcome is that parents have given their children instructions about the test. Unfortunately this possibility is almost impossible to perceive.

For further researchers it is recommended to describe the tasks of the research less explicit to the parents in their letter, in order to reduce the possible biased outcome.

This paper is a replicate of Cowell et al.'s study: 'The curious relationship between Theory of Mind and sharing in preschool age children'. Cowell et al.' study is based on children from multiple socioeconomics milieus and cultures whereas this current study is based on children from a high socioeconomic milieu.

Unfortunately it was not possible to find schools that wanted to participate in this research that are located in a low socioeconomic milieu.

Further research should be on a study that includes children from both high socioeconomic milieus and low socioeconomic milieus, as this could influence the relationship between ToM and generosity.

Additionally, it is recommended to further research children with and without siblings and their scores on both the false-location task and the Dictator Game. This data of this study did not include children without siblings who passed the ToM test. Therefore it was impossible to test whether having siblings has an effect on the relationship between ToM and generosity.

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Appendix 1: Letter to the schools

Geachte directie,

Wij schrijven u deze brief namens Willem Verbeke, Professor Sales- en Accountmanagement aan de Erasmus Universiteit Rotterdam.

Wij, Dirk-Jan Wessels en Reinier Vuylsteke, zijn bezig met onze scriptie voor de Master Economie en Bedrijfseconomie aan bovengenoemde universiteit en voor onze scriptie breiden wij een al bestaand onderzoek verder uit.

Enkele jaren geleden heeft er een onderzoek plaatsgevonden met als onderzoeks vraag: zijn kinderen tussen 3 en 6 jaar oud meer of minder vrijgevig wanneer zij Theory of Mind hebben.
Theory of Mind is in het kort gezegd het vermogen van mensen om een beeld te vormen van het perspectief van een ander persoon. De theorie wordt gebruikt om te kunnen beschrijven of een persoon bijvoorbeeld empatisch vermogen heeft.
Het opzienbarende van dit onderzoek was dat kinderen die geen Theory of Mind hebben, (dus zich minder goed in anderen kunnen verplaatsen) vrijgeviger zijn dan zij die dit wel hebben.

Wij willen u vragen of het mogelijk is om dit onderzoek bij scholieren van uw school uit te voeren. Het gaat om kinderen van 3 tot en met 5 jaar oud.
Het onderzoek is volledig anoniem en het enige wat de kinderen ons geven is hun leeftijd en het beantwoorden van de vragen die hierna worden toegelicht.

Door strikte regelgeving omtrent onderzoeken bij kinderen, is ons onderzoek voorgelegd aan ERIM International Review Board. Deze commissie heeft ons onderzoek goedgekeurd.
De ouders van de kinderen zullen ook goedkeuring moeten geven aan het onderzoek en daarom hebben wij een brief voor hen opgesteld. Zij dienen, indien zij akkoord gaan met het onderzoek, deze brief ondertekend terug te geven. Ons streven is om zoveel mogelijk kinderen aan het onderzoek mee te laten doen.

Tijdens het onderzoek worden de kinderen getest op Theory of Mind en hun vrijgevigheid middels het zogenoemde Dictator spel.

Theory of Mind:
De kinderen krijgen een pop te zien en deze pop stopt een tennisbal in 1 van de 6 opgestelde emmers. De pop gaat weg en er komt een andere pop. Deze nieuwe pop pakt de tennisbal uit de emmer, stopt hem in een andere emmer en vertrekt. Vervolgens komt de eerste pop terug en de kinderen wordt gevraagd: "waar zal de pop kijken voor zijn tennisbal?". Kinderen met Theory of Mind zullen antwoorden dat de pop in de emmer kijkt waar hij hem achter heeft gelaten. Kinderen zonder Theory of Mind zullen antwoorden dat hij in de emmer met de tennisbal kijkt. Zij leggen geen link tussen de kennis van de pop en het verplaatsen van de tennisbal.

Dictator spel:
De kinderen krijgen 6 stickers en hen wordt verteld dat zij die stickers mogen hebben. Indien er stickers bij zitten die ze niet leuk vinden, krijgen ze een sticker daarvoor in de plaats die ze wel leuk vinden. Vervolgens vertellen wij de kinderen dat andere kinderen op school zitten die niet mee kunnen doen en dus geen stickers krijgen. Maar, als de kinderen willen, dan kunnen ze een of meerdere stickers aan hen geven.
Dan krijgen de kinderen 1 bakje voor henzelf en een ander bakje voor kinderen die niet mee kunnen doen. Wij vragen de kinderen om de stickers in de bakjes te doen. Ze mogen kiezen hoe ze de stickers verdelen over de twee bakjes. De vrijgevigheid van de kinderen wordt gemeten door het aantal stickers dat ze van de 6 aan het andere kind hebben gegeven.

De onderzoeken worden het beste uitgevoegd door de kinderen een voor een uit de klas te halen en de kinderen deze vragen te stellen. De kinderen zijn hooguit 5 minuten bezig met de vragen en daardoor zullen zij weinig van de les missen.
Wij zullen elke dag beschikbaar zijn om de onderzoeken uit te voeren u kunt dus zelf aangeven wanneer het u het beste uitkomt.

Mocht u nog vragen hebben dan kunt u telefonisch of via e-mail contact met ons opnemen.
Mocht u het onderzoek willen lezen waarover wij onze scriptie schrijven dan kunt u dat vinden via google: The curious relation between Theory of Mind and Sharing in Preschool Age Children (Jason Cowell et al.). Mocht u het niet kunnen vinden dan kunt u ons ook een mail sturen en dan zullen wij het onderzoek naar u sturen.

Met vriendelijke groet,

Reinier Vuylsteke en Dirk-Jan Wessels

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Appendix 2: Letter to the parents for approval

Geachte ouders/verzorgers,

Wij schrijven u deze brief namens Willem Verbeke, Professor aan de Erasmus Universiteit Rotterdam. Wij willen u vragen of het mogelijk is om een onderzoek bij uw kind uit te voeren. **Het onderzoek is volledig anoniem en het enige wat de kinderen ons geven is hun leeftijd en het beantwoorden van de vragen die nader worden toegelicht.** Wij, Dirk-Jan Wessels en Reinier Vuylsteke, zijn bezig met onze scriptie voor de Master Economie aan bovengenoemde universiteit en voor onze scriptie breiden wij een al bestaand onderzoek verder uit.

Enkele jaren geleden heeft er een onderzoek plaatsgevonden met als onderzoeksvraag: zijn kinderen tussen 3 en 6 jaar oud meer of minder vrijgevig wanneer zij Theory of Mind hebben. Theory of Mind is in het kort gezegd het vermogen van mensen om een beeld te vormen van het perspectief van een ander persoon. De theorie wordt gebruikt om te kunnen beschrijven of een persoon bijvoorbeeld empatisch vermogen heeft. Het opzienbarende van dit onderzoek was dat kinderen die geen Theory of Mind hebben vrijgeviger zijn dan zij die dit wel hebben.

Wat gebeurt er tijdens het onderzoek?

Deel 1 Theory of Mind
De kinderen krijgen een pop te zien en deze pop stopt een tennisbal in een mand. De pop gaat weg en er komt een andere pop. Deze nieuwe pop pakt de tennisbal uit de mand, stopt hem in een emmer en vertrekt. Vervolgens komt de eerste pop terug en wordt de kinderen gevraagd: "waar zal de pop kijken voor zijn tennisbal?". Kinderen met Theory of Mind zullen antwoorden dat de pop in de mand kijkt waar hij hem achter heeft gelaten. Kinderen zonder Theory of Mind zullen antwoorden dat hij in de emmer met de tennisbal kijkt. Zij leggen geen link tussen de kennis van de pop en het verplaatsen van de tennisbal.

Deel 2 Bereidheid om te delen
De kinderen krijgen 6 stickers en hen wordt verteld dat zij die stickers mogen hebben. Indien er stickers bij zitten die ze niet leuk vinden, krijgen ze een sticker daarvoor in de plaats die ze wel leuk vinden. Vervolgens vertellen wij de kinderen dat er andere kinderen op school zitten die niet mee kunnen doen en dus geen stickers krijgen. Maar, als de kinderen willen, dan kunnen ze een of meerdere stickers aan hen geven. Dan krijgen de kinderen 1 bakje voor henzelf en een ander bakje voor kinderen die niet mee kunnen doen. Wij vragen de kinderen om de stickers in de bakjes te doen. Ze mogen kiezen hoe ze de stickers verdelen over de twee bakjes. De vrijgevigheid van de kinderen wordt gemeten door het aantal stickers dat ze van de 6 aan het andere kind hebben gegeven.

Het onderzoek duurt slechts 5 minuten en kan tijdens schooltijd worden uitgevoerd. Tevens willen wij herhalen dat de resultaten volledig anoniem worden behandeld. Door strikte regelgeving omtrent onderzoeken bij kinderen, is ons onderzoek voorgelegd aan ERIM International Review Board. Deze commissie heeft ons onderzoek goedgekeurd.

U steunt een goed doel!
Per deelnemend kind zullen wij € 2,50 ter beschikking stellen aan UNICEF. Wij streven naar +/- 100 deelnemende kinderen. Naast het feit dat u ons ontzettend helpt met afstuderen, steunt u daarmee dus ook een goed doel dat opkomt voor de belangen van de minder bedeelde kinderen op deze wereld!

unicef

Erasmus Universiteit Rotterdam

Vragen?
Mocht u nog vragen hebben dan kunt u telefonisch of via e-mail contact met ons opnemen.
Mocht u het onderzoek willen lezen waarover wij onze scriptie schrijven dan kunt u dat vinden via google: The curious relation between Theory of Mind and Sharing in Preschool Age Children (Jason Cowell et al.). Mocht u het niet kunnen vinden dan kunt u ons ook een mail sturen en dan zullen wij het onderzoek naar u sturen.

Indien u akkoord bent met de deelname van uw kind zouden wij u willen verzoeken om onderstaande gegevens in te vullen en deze brief ondertekend **voor** _____ te retourneren.

Naam ouder/verzorger ** _____

Ouder/verzorger van ** _____

Leeftijd kind in jaren _____

Heeft uw kind broertjes of zusjes Ja / Nee (doorhalen wat niet van toepassing is) ___

Handtekening ouder/verzorger _____

Datum _____

*** deze gegevens worden alleen gebruikt voor de ethische commissie, die erop toeziet dat wij op een juiste manier aan de data zijn gekomen. Deze gegevens worden door ons niet in de uitslagen van het onderzoek verwerkt!*

Uw medewerking wordt door ons zeer op prijs gesteld!

Met vriendelijke groet,

Reinier Vuylsteke en Dirk-Jan Wessels

Erasmus Universiteit Rotterdam

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