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Executive Function, Parenting Style, and Theory of Mind

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Abstract

This research investigated the individual differences in theory of mind (ToM) and executive functioning (EF) in preschool-age children. The relationship between parenting styles and ToM was also investigated, and specifically examined EF as a possible mediator between parenting styles and ToM. A sample of 3.5- to 5.5-year-old children ($N = 25$) were run through a series of EF and ToM tasks while parents filled out a Parenting Style Questionnaire. It was hypothesized that positive relationships would be found between parenting and ToM, parenting and EF, and EF and ToM. After running a correlational analysis, a significant relationship was found between ToM and Authoritative parenting styles, $r = .43$, $p = .05$. However, no significant relations were found between EF and parenting or EF and ToM. Future studies should use broader, more diverse populations to capture a more representative sample, as well as include supplementary tasks to further investigate EF skills. Limitations are also discussed.

EXECUTIVE FUNCTION, PARENTING STYLE, AND THEORY OF MIND

Introduction

Past research on the relationship between executive functioning (EF) and theory of mind (ToM) has set the stage for a broad range of investigations into social-cognitive development, including the influence of parenting styles. For instance, recent EF research has suggested that, when examining environmental influences on EF, parental discipline should also be examined (Carlson, 2005). What has been neglected in this research, however, is how the relationship between styles of parenting and EF are related to children's ToM. Therefore, the current study attempts to address the fundamental relationship between four variables: Authoritative parenting styles, harsh or Authoritarian parenting styles, EF, and ToM.

This research is both theoretically and practically driven. Theoretically, this investigation seeks to answer important but neglected questions about children's conceptual development. Specifically, it addresses whether Authoritative parenting styles promote better ToM development, as well as how EF contributes to ToM in the preschool period. The practical purpose of this investigation is to bring to light ways in which parents can improve their children's ToM and EF capabilities at home through effective parenting techniques.

In general, ToM can be understood as the ability to understand, explain, infer, and predict the mental states of others that trigger behaviors (Baron-Cohen, 1994). The false-belief task, for example, is one method of obtaining an individual's level of ToM by testing how well one can take on the perspectives of others. Likewise, EF can be defined as "those processes that serve to monitor and control thought and action including self-regulation, planning behavior, organization, cognitive flexibility, error detection and correcting response inhibition, and

resistance to inference” (Carlson & Moses, 2001). EF can be measured with gambling tasks or card sort tasks, for example, by testing one’s inhibitory control abilities.

Past investigations in the developmental field have yielded evidence of robust correlations between ToM and EF (Carlson, Moses, & Breton, 2002; Carlson & Moses, 2001; Carlson, Mandell, & Williams, 2004). Carlson and Moses (2001) proposed that the emergence and expression of ToM might be enabled by EF. That is to say, in order for ToM to develop and emerge, at least some level of EF is necessary (Moses, 2001; Carlson et al., 2004). Along those same lines, failure to perform well on ToM tasks may partially be due to the child’s lack of inhibitory control and working memory –both fundamental components of EF. For example, conflict inhibition tasks, such as the Bear/Dragon task, call for a novel response while simultaneously suppressing or inhibiting the prepotent response (i.e. refraining from performing the specific actions that the “naughty dragon” calls for), (Carlson & Moses, 2004).

There are several reasons to believe that EF and ToM are strongly related. Neurologically, both ToM and EF are quite active in the prefrontal cortex (Rowe, Bullock, Polkey, & Morris, 2001), thus sharing the same neural processes (Carlson & Moses, 2001, 2004; Sabbagh & Taylor, 2000; Carlson et al., 2004). Similarly, individuals with autism have deficits in both ToM and EF, again suggesting a possible neural commonality (Baron-Cohen, 1995; Carlson & Moses, 2001, 2004; Carlson et al., 2004).

A more elementary piece of evidence of a relationship between ToM and EF is their developmental trajectories. Marked developments in both ToM and EF take place during the preschool years and are critical for cognitive and social maturation (Carlson & Moses, 2001, 2004; Dennis, 2006). Finally, it is evident through ToM tasks that, in order to successfully take on a different perspective than one’s own, some EF is necessary, again suggesting that EF may

enable the emergence of ToM (Carlson & Moses, 2001, 2004). That is to say, a child must control the suppression of their own perspectives in order to take on the viewpoints of others.

Where Moses and Carlson (2004) investigated the role of inhibitory control for the emergence and expression of ToM, the current investigation works to expand this relationship by examining the role played by the style of parenting. During the preschool period, parenting is one of the most significant external influences on a child's self-regulation (Dennis, 2006; Calkins & Johnson, 1998). Two main parenting styles are considered: Authoritative parenting and Authoritarian parenting styles. For the present study, Authoritative parenting is defined as parenting style that utilizes warmth and nurturance while, at the same time, firm control of the child's behavior (Knight, Elfenbein, Capozzi, Eason, Bernardo and Ferus, 2000). Also, parents who practice Authoritative parenting give reasons for what they ask of and expect from their child, as well as explain how their action may have affected others in the instance of a transgression (Burl, 1991; Knight et al., 2000).

A number of studies indicate that a child whose parents talk to them about how their actions affect others, is more inclined to help those in distress (Zahn-Waxler, Radke-Yarrow, and King, 1979). These indications are partially due to the tendency of communicative, Authoritative parenting styles to yield children who have developed secure attachments to their parents (Ruffman, Slade, Devitt, and Crow, 2006). What is more, securely attached children historically perform better on ToM and emotion tasks (Meins, Fernyhough, Russell, and Clark-Carter, 1998; Ontai & Thompson, 2002). In other words, children hailing from secure, Authoritative -type parents are usually better able to take on the perspective of others.

In fact, FitzGerald and White (as cited in Pears and Moses, 2003) discovered that performance on perspective taking tasks was positively associated with parents who focused on

the feelings of the victim when their child had misbehaved. Similarly, Ruffman, Perner, and Parkin (1999) found that children's performance on a false-belief task was also positively associated with "victim-centered" discipline (Pears & Moses, 2003).

Finally, Huhges, Deater-Deckard, and Cutting (1999) uncovered a positive correlation between warm, Authoritative parenting styles and children's performance on ToM tasks. The results from these and other studies provide a basis for the argument that Authoritative parenting styles, and talking about feeling-states in particular, positively affects children's understanding of emotions and beliefs, in addition to promoting cognitive development (Dunn, Brown, and Beardsall, 1991; Pears & Moses, 2003; Bee, Barnard, Eyres, Gray, Hammond, Spietz, Snyder, and Clark, 1982).

Authoritarian parenting, on the other hand, is operationally defined as a harsh parenting style that utilizes power-assertive techniques, including physical punishments, commands and yelling, while lacking warmth and communication (Ruffman, Slade, Devitt, and Crowe, 2006). Furthermore, Authoritarian parenting styles depend on punishments that act exclusively as consequences to actions without explanation, as well as avoiding discussions or emotion understanding techniques (Burl, 1991; Ruffman et al., 2006).

In fact, Pears and Moses (2003) found that the sole use of consequences when disciplining was negatively associated with emotion understanding. This may be due to the fact that, although relying on consequences like removing television time and other privileges may adjust a child's behavior temporarily in order to avoid future punishment, it fails to teach them about how their actions may have affected others.

Pears and Moses (2003) found that power-assertive Authoritarian parenting is also significantly negatively associated with belief understanding. This evidence indicates that

power-assertive, Authoritarian parenting techniques are likely to have deleterious effects on a child's cognitive development (Pears and Moses, 2003). In other words, physical punishment, unexplained consequences, yelling and direct commands are not effective parenting strategies for the promotion of ToM.

It is clear then, that parenting style is correlated with ToM. What has been neglected however is the relationship between parenting styles and EF, and how this relationship affects ToM. Thus, the objective of this study is to take the initial exploratory step by testing the effects of parenting styles on EF and ToM, and determining whether EF might in fact mediate the relationship between parenting styles and ToM.

The current study hypothesizes that parenting styles and ToM are mediated by EF. That is to say that warm positive parenting styles, such as Authoritative parenting, could enhance a child's EF and inhibitory control skills by improving the way they replace current information with new information. In turn, these EF skills may enhance ToM.

In the current study four variables are examined. The first, EF, is characterized as self-regulation or self-control on a cognitive level (Carlson & Moses, 2001), and was measured using the Bear/Dragon task (Kochanska, Murray, Jacques, Koenig, & Vandegest, 1996; Reed, Pien, & Rothbart, 1984) and the Card Sort task (Frye, Zelazo & Palfai, 1995; Zelazo, Frye & Rapus, 1996). The second variable, ToM, can be understood as the ability to understand, explain, infer, and predict the mental states of others (Baron-Cohen, 1995). This variable was measured with two false-belief tasks: location false-belief (Wimmer & Perner, 1983) and contents false-belief (Perner, Leekam, & Wimmer, 1987; Gopnik & Astington, 1988). Finally, the two parenting styles examined were measured with the Parenting Style Questionnaire (adapted from Strayhorn

and Weidman, 1988), which refers to discipline techniques that parents generally use when interacting with their child.

Based on previous research, the current study expects the following:

- Performance on EF and ToM will improve with age.
- EF will correlate with ToM, as in previous research.
- Parenting will correlate with ToM, as in previous research. Specifically,
 - Children whose parents employ Authoritative techniques, such as “victim-centered” discussions after their child has transgressed, are should perform better on the ToM tasks than children whose parents employ a more Authoritarian technique.
 - Harsh discipline characteristic of Authoritarian parenting styles will negatively correlate with ToM skills.
- Parenting will correlate with EF

If all these predictions are correct, the critical question is whether the relations between parenting and ToM will persist with EF statistically controlled.

METHOD

Participants

Participants included 25 preschool-age children ($M = 50.96$ months, $SD = 8.44$; 15 boys and 10 girls). Children were recruited via telephone calls to parents from the University of Oregon Psychology Department developmental database. The names in the database were collected from birth announcements in the Eugene-Springfield area.

Materials

The current investigation was extracted from a larger study conducted by University of Oregon graduate student, Seraphine Shen, examining relations between EF, emotion regulation, ToM, and emotion understanding.

Parenting style was measured using a subscale from the Parenting Style Questionnaire (see appendix), comprised of 6 questions gauging the level of Authoritarian parenting (questions 3a, 13d, 16a, 17a, 21a, and 26a), and one question gauging the level of Authoritative parenting (question 22a). This questionnaire used a 5-point Likert scale, where a low score indicated less frequent behavior. For example, the Authoritative parenting style question asks “If your child has been unkind to another child, how often do you talk about the other child’s feelings (or how your child would feel if someone did it to them),” where parents rated their answer from a 1 for “Never or almost never,” to a 5 for “Always or almost always.” Likewise, one of the Authoritarian parenting style questions asks “How often do you spank or swat your child,” where parents rate their answers the same way. After scaling the questions, a higher score suggested more Authoritative or Authoritarian parenting style, respectively.

Parents were also asked to specify all other older and younger siblings living in the home, including their date of birth, gender, and current age. In addition, they were asked to identify the highest degree the child’s father and mother have attained, ranging from 1 (none) to 7 (Ph.D., J.D., M.D., etc).

EF and ToM were measured with two tasks each. The EF tasks included Bear/Dragon and Card Sort, while the ToM tasks include two false-belief tasks: location false-belief and contents false-belief.

Executive Functioning Measures

Bear/Dragon. The Bear/Dragon task (Kochanska et al., 1996; Reed et al., 1984) is a simplified version of “Simon Says” where the child was asked to imitate the simple actions of the “nice bear” (e.g. clap your hands), but not to imitate the actions of the “naughty dragon.” Practice trials were run for each puppet until the child understood the rules of the game. The child was reminded before the test trials started to “listen to the nice bear, but don’t listen to the naughty dragon.” Five trials were run, alternating the nice bear and naughty dragon commands. Then the rules were repeated one more time, and five more trials were run, again alternating the commands of the nice bear and naughty dragon. On each bear trial, the children were given 3 points for correct full movement, 2 points for partial correct movement, 1 point for wrong movement, and 0 points for failure to move. On the dragon trial, children were given 3 points for no movement, 2 points for partial movement, 1 point for full incorrect movement, and 0 points for full correct movement. The points were then added up into bear totals and dragon totals, each out of 15, as well as a Bear/Dragon total out of 30. This task usually lasted around 2 minutes.

Card Sort. During the Card Sort task (Frye et al., 1995; Zelazo et al., 1996), the child was asked to sort cards that varied on two dimensions: shape and color. For the current study, either a boat or a bird was presented colored either blue or orange. The child was first instructed to sort the cards according to shape (a boat or bird). Then after the experimenter demonstrated how to sort one boat and one bird, the child was instructed to sort 5 cards by shape, lying the cards face down after sorting them. Then, the child was instructed to sort the cards according to color (blue or orange). After the experimenter demonstrated how to sort one blue card and one orange card, the child was instructed to sort 5 cards by color, again, lying them face down after sorting them. Children were awarded 1 point for correct placement and 0 points for incorrect

placement of cards. When computed, the number of accurate pre-switch trials out of 5, and accurate number of post-switch trials, also out of 5. This task usually lasted no longer than 2 minutes.

Theory of Mind Measures

Location False-Belief. During the location false-belief task (Wimmer & Perner, 1983), the child was told a story using puppets where “Bert” and “Ernie” are playing kickball and there are two storage spaces: a chest and a drawer. When Bert leaves for lunch, he puts the ball away in the drawer. Then Ernie decides he wants to continue playing with the ball and retrieves it from the drawer. When Ernie leaves, he puts the ball away in the chest. Upon Bert’s return, the child was asked a series of three questions: “Where does Bert think the ball is?” “Where is the ball really?” “Where did Bert put the ball in the beginning?” Children were awarded 1 point for answering the questions correctly, and 0 points for answering the questions incorrectly. This task typically lasted about 3 minutes.

Contents False-Belief. During the contents false-belief task (Perner et al., 1987; Gopnik & Astington, 1988), the child was first shown a Band-aid box and was asked what was inside. Then, the experimenter showed the child that the box actually contained a small, stuffed bluebird. The child was then asked what “When you first saw this box, before we opened it, what did you think was inside, Band-aids or a bluebird?” Next, the experimenter tells the child that newcomer “Max” has never seen inside this box before, and asks “What does Max think is inside the box, Band-aids or a bluebird?” Finally, the experimenter asks, “What is really in the box?” Children were awarded 1 point for answering the questions correctly and 0 points for answering incorrectly. This task usually lasted less than 2 minutes.

The total possible score across the two false-belief tasks was out of 3. Additionally, if the child got the control questions wrong, then they are scored as missing data, regardless of their other answers. An individual separate from the coder and experimenter reviewed the recorded sessions and re-coded several tasks, including Bear/Dragon task.

Procedure

When the parent (usually the mother) arrived with their child, they returned the questionnaires that had been previously mailed to them (also usually filled out by the mother). While the child was being run through the battery of tasks, the parent observed from an adjacent room through a one-way mirror and television monitor connected to a video camera in the testing room, which video taped the sessions for later coding. During this time the parent completed the Parenting Style Questionnaire.

When the child was ready to begin, one female experimenter, who administered the tasks directly, and one coder, who observed and recorded the child's performance, accompanied the child into the testing room. After the experimenter obtained verbal consent from the child, the battery of tasks began. The experiment began with the contents false-belief task, followed by the Bear/Dragon task, then unexpected location false-belief task, and finally the Card/Sort task.

Completion of these four tasks, plus the additional tasks in the battery, usually lasted around 30-40 minutes. After the child completed all the tasks, or wanted to stop before all the tasks were completed, they were rewarded with a sticker, a small toy, and a \$5 gift certificate to a local toy store.

RESULTS

Of the 25 subjects, 14 (64%) had one or more older siblings while 12 (48%) had one or more younger siblings. Also, 8 fathers (32%) and 14 mothers (56%) reported having a high

school, associate, or vocational degree, while 17 fathers (68%) and 11 mothers (44%) reported having a bachelor's or master's degree.

The composite ToM and EF scores were computed as the average of the individual variable scores after the scores had been standardized. This was done to correct for the high number of children who did not complete the Bear/Dragon task. Descriptive statistics (see Table 1) of the tasks completed show that there are more composite ToM tasks ($N = 25$) successfully completed than there are composite EF tasks ($N = 22$). Also notable is the lack of individual differences found with the Card Sort task used ($M = 4.64$, $SD = 1.09$).

To analyze parenting styles, 6 questions were pulled from the Parenting Style Questionnaire to analyze Authoritarian parenting, and one question was pulled to analyze Authoritative parenting. Where most parents reported low usage of Authoritarian PS ($M = 1.88$, $SD = .36$), almost all of the parents reported high employment of Authoritative parenting ($M = 4.18$, $SD = .98$) (see table 1).

The initial prediction that performance on EF and ToM would improve with age was partially supported. Where EF was not positively correlated with age, the relationship between ToM and age was significantly positively correlated ($r = .46$, $p < .05$) (see table 2). Despite past research, the current study did not find significant evidence to support the second prediction that EF is correlated with ToM, $r = .04$, $p > .05$ (see table 2).

The prediction that Authoritative PS is positively correlated with ToM, was found to be significant, $r = .43$, $p < .05$ (see table 2). Yet, the prediction that Authoritarian PS, as well as the composite Authoritarian PS score, is negatively correlated with ToM showed no significant support when tested with each of the six questions used to determine harsh parenting styles.

After running a correlational analysis between EF and parenting, statistical evidence from neither Authoritarian PS ($r = .04, p > .05$), nor Authoritative PS ($r = .11, p > .05$) could support the hypothesis that PS and EF are significantly related. In order to test the mediation of EF between parenting styles and ToM, a partial correlation was run controlling for EF. After statistically controlling for EF, there was a positive correlation between Authoritative PS and ToM, however this correlation was not significant ($r = .51, p > .05$), thus lacking support for the study's hypothesis.

Interestingly, though, was the correlation found between Authoritarian PS and age, $r = .65, p < .05$ (see table 2). Additionally, a significant relationship was found between children with older siblings ($M = .84, SD = .80$) and proficient ToM, $r = .44, p < .05$ (see table 2).

DISCUSSION

The current study hypothesized that EF is a mediator of the relationship between parenting styles and ToM. Although a significant relationship was found between Authoritative PS and ToM, there was not enough evidence to support the main hypothesis. However, there was statistical evidence to support several of the study's expectations.

The initial expectation that ToM improves with age was supported by the positive correlation found between these two variables, demonstrating that as children get older, their ToM skills are likely to improve.

Another prediction of this investigation based on past research was that EF and ToM would be positively correlated. This prediction, however, was not statistically supported. This may be largely attributed to the lack of individual differences found between subjects in the Card Sort task ($M = 4.64, SD = 1.09$), together with the low number of completed Bear/Dragon tasks ($N = 18$), which made the results for EF difficult to interpret.

Also, results show that Authoritative parenting techniques are more frequently used than Authoritarian parenting techniques by parents in the current population. Inferential statistical analysis shows that, although a significant negative correlation was not found between Authoritarian PS and ToM, nor was a correlation found between EF and parenting, a positive correlation between ToM and Authoritative PS was obtained, demonstrating that positive parenting styles have a significant effect on children's ToM skills.

A significant correlation was found between age and harsh discipline. This suggests that as children get older, harsher parenting styles are employed. However, this relationship should be further investigated before any reliable conclusions are made.

Finally, children with older siblings demonstrated higher ToM scores than children with younger siblings. This indicates that children who grow up with an older sibling may take on the perspectives of other better than a child who does not have older brothers or sisters. Further investigation into the effect of siblings on ToM is recommended for future research.

These findings support past research, including Ruffman et al. (1999), Pears and Moses (2003), and others, because of the significant, positive relationship found between, Authoritative parenting styles –including victim-centered discipline- and a child's ability to take on the perspective of others.

Theoretically, this research worked to examine neglected aspects of the relation between parenting styles and ToM development, as well as the contribution of EF to this development. And, although a correlational relationship was not found for EF and ToM or parenting styles and EF, the initial step as been taken to investigate this novel association between types of parenting styles, EF and ToM.

The significant results found in this investigation are practical as well. The purpose underlying this investigation was to reveal effective parenting styles used at home that improve children's ToM capabilities. When parents use communicative styles of parenting that focus on how the victim feels when their child transgresses, it forces the child to take on the perspective of another, thus improving their ToM. On the other hand, the opposite causal direction should also be considered: parents utilize "victim-centered" talk, communication, warmth and other Authoritative parenting techniques because their children have good ToM.

Similarly, the implications of these findings are great, in that traditional methods of corporal punishment, time-outs, and the removal of privileges may not be the most effective forms of parenting when a child has transgressed. Instead, communicating with the child about how their actions may have affected others has proven to be significantly related to children's proficient ToM skills. Moreover, as Zahn-Waxler, et al. (1979) suggests, a child with proficient ToM skills may be more inclined to help others in distress.

Finally, and most importantly, these results help to further spread knowledge of Authoritative parenting styles that utilize communication skills, warmth, and non-physical discipline, thereby possibly decreasing the rate of corporal punishment and child abuse instances by Authoritarian parents in the home.

This study had several limitations, including a limited number of subjects, a limited population, and ineffective EF tasks. For future research, using more subjects is strongly suggested, as well as using a wider, more diverse population. Also, using a more effective EF task than the version of the Card Sort task used is also recommended, based on the lack of individual differences it yielded between children. Also, using less aesthetically pleasing

puppets for the Bear/Dragon task is recommended, as they were somewhat distracting for many of the younger children.

In conclusion, the current study provides evidence for the theory that Authoritative parenting styles utilizing victim-centered discipline, communication, and warmth is significantly and positively related to children's ToM skills.

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Table 1: Means and Standard Deviations for Examined Variables

	Young (36- 48 months) M (SD)	Old (49 months and older) M (SD)
EF Composite	.19 (.33)	-.1 (.86)
Bear/Dragon (dragon trials)	.19 (.39)	-.12 (1.25)
Card Sort (post-switch)	.06 (.44)	-.05 (1.32)
ToM Composite	.17 (.24)	.53 (.36)
Contents False-Belief (former belief)	0 (0)	.46 (.52)
Contents False-Belief (false belief)	.13 (.35)	.55 (.52)
Location False-Belief	.44 (.53)	.64 (.5)
Authoritative PS	4.18 (.98)	4.75 (.45)
Authoritarian PS	1.89 (.36)	2.47 (.6)

Table 2: Intercorrelations for Twelve Variables Tested

	1	2	3	4	5	6	7	8	9	10	11	12
1. Executive Function		.64	.71	.04	-.2	-.03	.26	.11	.04	.08	.32	-.08
2. Bear/Dragon (dragon trials)	.64		-.08	.49	.18	.3	.51	.3	-.18	.11	.47	-.35
3. Card Sort (post-switch)	.71	-.08		-.3	-.33	-.23	-.09	-.08	.23	.04	.02	.18
4. Theory of Mind	.04	.49	-.3		.67	.66	.87	.43	.17	.46	.44	-.14
5. Content False-Belief (former)	-.2	.18	-.33	.67		.43	.12	.12	.4	.07	.77	.15
6. Contents False-Belief (false-belief)	-.03	.29	-.23	.66	.04		.26	.26	.16	.32	.45	-.24
7. Location False-Belief	.26	.51	-.09	.87	.43	.29		.56	.12	.26	.4	-.09
8. Authoritative Parenting	.11	.3	-.08	.43	.12	.26	.56		.18	.31	-.08	.02
9. Authoritarian Parenting	.04	-.18	.23	.17	.12	.16	.12	.18		.65	-.25	.17
10. Age (in months)	.08	.11	.04	.46	.4	.32	.26	.31	.65		.1	-.06
11. Older siblings	.32	.47	.02	.44	.07	.45	.4	-.08	-.25	.1		-.54
12. Younger siblings	-.08	-.35	.18	-.14	.15	-.24	-.09	.02	.17	.06	-.54	

Note. N = 25. Coefficient correlations significant at the .05 level are printed in boldface type. Coefficient correlations significant at the .01 level are printed in italic, boldface type.

Appendix

*Parenting Style Questionnaire***Parenting Style Questionnaire**

We would like to learn more about how parents as a whole discipline their children. By discipline, we mean the things parents say or do when a child has done something wrong or has broken a rule. Please answer the questions below about the way you, your partner, and/or your child's other biological parent discipline your child.

	Always or almost <u>Always</u>	Often <u>Often</u>	About half the time <u>time</u>	Occasionally <u>Occasionally</u>	Never or almost never <u>never</u>	Does not apply <u>apply</u>
1a If you tell your child s/he will get punished if s/he doesn't stop doing something, and s/he keeps doing it, how often will you punish him/her?	5	4	3	2	1	
b. How often is this true for your partner ?	5	4	3	2	1	9
2a. How often do you let your child get away with things that you feel should have been punished?	5	4	3	2	1	
b. How often does your partner let your child get away with things you feel should have been punished?	5	4	3	2	1	9
3a. How often do you get angry when you punish your child?	5	4	3	2		1
b. How often does your partner get angry when s/he punishes your child?	5	4	3	2	1	9
4a. How often do you think that the kind of punishment you give your child depends on your mood?	5	4	3	2	1	
b. How often is this true for your partner ?	5	4	3	2	1	9
5a. How much of the time do you feel confident that you can change or correct your child's misbehavior?	5	4	3	2	1	
b. How often do you think this is this true for your partner ?	5	4	3	2	1	9
6a. How often do you feel you are having problems managing your child in general?	5	4	3	2	1	
b. How often does your partner seem to be having problems managing your child in general?	5	4	3	2	1	9
7a. How often do you let your child get out of a punishment when s/he really sets his/her mind to it?	5	4	3	2	1	
b. How often does your partner do this?	5	4	3	2	1	9

	Always or almost <u>Always</u>	<u>Often</u>	About half the <u>time</u>	<u>Occasionally</u>	Never or almost <u>never</u>	Does not <u>apply</u>
8a. If there is a discipline problem, how often do you and your partner agree on what to do?	5	4	3	2	1	9
9a. If there is a discipline problem, how often do you generally go along with what your partner has done?	5	4	3	2	1	9
10a. How often when you discipline your child, does s/he ignore the punishment?	5	4	3	2	1	
b. How often when your partner disciplines your child, does your child ignore the punishment?	5	4	3	2	1	9
11a. How often do you have to discipline your child repeatedly for the same thing?	5	4	3	2	1	
b. How often does your partner have to do this?	5	4	3	2	1	9
12a. How often are you satisfied with your child's behavior?	5	4	3	2	1	
b. How often do you think your partner is satisfied with your child's behavior?	5	4	3	2	1	9
13a. In general, how often do you think the discipline you use with your child is appropriate for his/her age?	5	4	3	2	1	
b. How often do you think it is fair?	5	4	3	2	1	
c. How often do you think it is too strict?	5	4	3	2	1	
d. How often do you think it is harsh or mean?	5	4	3	2	1	
14a. In general, how often do you think the discipline your partner uses with your child is appropriate for your child's age?	5	4	3	2	1	9
b. How often do you think it is fair?	5	4	3	2	1	9
c. How often do you think it is too strict?	5	4	3	2	1	9
d. How often do you think it is harsh or mean?	5	4	3	2	1	9



How often do you and your partner do each of these things when your child won't mind you or breaks a rule?

	Always or almost <u>Always</u>	Often	About half the time	Occasionally	Never or almost never	Does not apply
15. Talk to child						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
16. Scold or yell at child						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
17. Spank or swat your child						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
18. Send to time out						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
19. Take away privileges (like TV, toys)						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
20. Leave it to other parent						
a. You	5	4	3	2	1	9
b. Your partner	5	4	3	2	1	9
21. Try to force your child to do what you want.						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9
22. If your child has been unkind to another child, how often do you talk about the other child's feeling (or how your child would feel if someone did it to them?)						
a. You	5	4	3	2	1	
b. Your partner	5	4	3	2	1	9

	Always or almost <u>Always</u>	<u>Often</u>	About half the time <u>time</u>	<u>Occasionally</u>	Never or almost never <u>never</u>	Does not apply <u>apply</u>
23a. How often is it hard to be patient with your child?	5	4	3	2	1	
b. How often do you think that your partner finds it hard to be patient with your child?	5	4	3	2	1	9
c. How often do you think that your child's other biological parent (if not your partner) finds it hard to be patient with your child?	5	4	3	2	1	9
24. Are there any other adults besides your partner that live in the child's household that are <u>regularly</u> or <u>often</u> involved with raising your child (for example, taking care of child, disciplining child, etc.)? 1 - YES 2 - NO						

If no, STOP HERE.

If yes, continue.

	Always or almost <u>Always</u>	<u>Often</u>	About half the time <u>time</u>	<u>Occasionally</u>	Never or almost never <u>never</u>	Does not apply <u>apply</u>
• How often do you think <u>any</u> of these adults:						
a. Uses discipline with your child that is harsh or mean?	5	4	3	2	1	9
b. Uses physical discipline with your child?	5	4	3	2	1	9
c. Uses discipline with your child that is too strict?	5	4	3	2	1	9

END: THANK YOU