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Parent-child relationship and adolescent egocentrism

This article aims to establish how different categories of parent-child relationships are associated with certain manifestations of egocentrism. An empirical investigation was carried out, and questionnaires were used to measure egocentrism and parent-child relationships. The results of the investigation showed that the adapted egocentrism questionnaire can be considered reliable and construct valid. Significant negative correlations were obtained between parent-child relationships and egocentrism, in particular between personal fable and the relationship of knowing. Results from the regression analysis showed that 39% of the variance in parent-child relationship can jointly be explained by imaginary audience, personal fable and overestimation of responsibilities.

Ouer-kindverhouding en adolessente egosentrisme

Die artikel het ten doel om vas te stel hoe verskillende kategorieë van ouer-kindverhoudinge verband hou met sekere manifestasies van egosentrisme. 'n Empiriese ondersoek is uitgevoer en vraelyste is gebruik om egosentrisme en ouer-kindverhouding te meet. Die resultate van die ondersoek het aangetoon dat die aangepaste vraelys om egosentrisme te meet betroubaar en konstrukgeldig is. Beduidende negatiewe korrelasies is gevind tussen ouer-kindverhouding en egosentrisme, veral tussen persoonlike fabel en kenverhouding. Resultate van die regressie analise het getoon dat 39% van die variansie in ouer-kindverhouding gesamentlik verklaar kan word deur verbeelde gehoor, persoonlike fabel en oorskatting van verantwoordelikhede.

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Greater differentiation regarding the formation of relationships occurs during adolescence. Although adolescents are still closely related to their parents, they spend increasingly more time with members of their peer group. In some instances, the adolescents' desperate need to be accepted by their peers causes them to behave in a way that pleases their peers at the expense of their parents. Such need is not deliberately aimed at excluding parents from their lives, but rather a way of ensuring that they are not socially isolated in a school environment. Adolescents experience social isolation in a school context as devastating. Ironically the relationship with parents is even more important for those who run the risk of being isolated. A sound and stable relationship with parents can protect adolescents against problems experienced within the peer group (Hall-Lande *et al* 2007: 265-86). The adolescents' relationship with their parents has both a protective and supportive function. It protects them against harsh demands made by the peer group or other adults, and supports them to venture into relationships outside the family. It is therefore not surprising that the psychological well-being of adolescents is closely associated with healthy parent relationships (Gibson & Jefferson 2006: 112).

It is evident that numerous factors might have a negative impact on the relationship between parents and their adolescent children. External factors include, among others, the structure and composition of the family, the number of siblings in the family, birth order and working conditions of parents. Two internal factors, which are typical of the adolescent phase, are worth mentioning in this regard: identity formation and egocentrism. According to Erickson's notable psychosocial theory, identity formation reaches a crisis point during adolescence. Adolescents who successfully resolve this crisis will be aware of their own unique characteristics and this awareness will be obvious in the choices they make, their commitments in life and their relationships with others. Those who struggle to form an identity will experience role confusion accompanied by relationship problems (Woolfolk 2010: 86).

Another typical aspect of the adolescent phase is egocentrism. Cognitively speaking, there is, in Piagetian terms, a gradual move

towards formal operational thinking during adolescence. This enables the person to process abstract and hypothetical content rather than to focus on concrete evidence alone (Artar 2007: 1215). The development towards formal operational thinking can result in egocentrism. An important element of formal operations is being able to think about thinking. While this ability frees the child from object centration (focusing attention on one object), it produces self-centration, a belief that one's own concerns are also the focus of other people's thoughts (Frankenberger 2000: 343-54). Adolescents assume that since they spend a considerable amount of time thinking about themselves, others must be doing the same thing, namely thinking about and monitoring them. This belief is referred to as *imaginary audience* (Rycek *et al* 1998: 745-9).

Another manifestation of egocentrism is personal fable. Some adolescents believe that their feelings and experiences are entirely unique and beyond the comprehension of others (O'Conner 1995: 205-27). Nobody has experienced what they experience or at least not on the same level or with the same intensity.

Although imaginary audience and personal fable are frequently mentioned as manifestations of egocentrism, another possible manifestation of adolescent egocentrism could be termed overestimation of responsibilities. Some adolescents weigh their responsibilities and workload more heavily than those of others. They overestimate their responsibilities because they concentrate so on their own input that they overlook the contribution of others. Consequently, these adolescents believe that they are doing more than their fair share and others are doing less than theirs (Gilovich *et al* 1999: 71-2).

According to Gilovich *et al* (1999: 69-70), people might differ in the importance they attach to maximising their own well-being, but everyone is necessarily the centre of his/her world from which everything else is observed. Naturally, this is a potential source of interpersonal conflict. During adolescence this phenomenon is even more problematic. As mentioned earlier, adolescents are in a process of distancing themselves from their parents. This in itself may cause interpersonal problems. Coupled with this they are also inclined to behave in an egocentric way. The question thus arises: How does the

egocentric behaviour of adolescents influence parent-child relation-ships during this socially sensitive period?

Existing literature does not provide a clear answer to the above question. Adams & Jones (1982: 25-31) and Riley *et al* (1984: 401-17) found that perceived parental emotional support is associated with lower levels of adolescent egocentrism, whereas perceived parental rejection is associated with higher levels of egocentrism. However, these studies only used imaginary audience to measure egocentrism. In addition, an instrument consisting of only seven items was used to measure perceived parental support whereas one consisting of only five items was used to measure parental rejection. The question can rightfully be asked whether these few items can adequately measure a complex construct such as parent-child relationships.

Contrary to the above studies in which perceived parental emo-tional support was associated with lower levels of adolescent ego-centrism, O'Connor (1995: 205-27) found that perceived parental emotional support was associated with higher levels of adolescent egocentrism in males. The results for females were generally non-significant.

Ryan & Kuczkowski (1994: 219-38) argued that the imaginary audience is a normal aspect of early adolescent development. This diminishes in the context of secure parental relationships by late adolescence, but remains salient if these relationships are insecure. Although weak correlations were found between imaginary audi-ence and relationship with parents, support was obtained for the formulation that emotionally insecure relations with parents may be associated with a maintained salience of imaginary audience in later adolescence. It appears that adolescents in insecure relation-ships with parents remain more self-conscious, self-critical, and less able to "stand out" after normal egocentrism would have typically diminished.

The "storm and stress" label associated with adolescents has been conceptualised in terms of characteristics related to parental conflict, moodiness and risk-taking behaviour (Hines & Paulson 2006: 598). However, the latter is associated with egocentrism. Adolescents

who strongly believe that they are unique and exceptional may also start to believe that nothing serious will happen to them. They are invulnerable to catastrophic life events such as death and severe illness. This belief is related to reckless behaviour during adolescence of which careless driving, irresponsible sexual activities, drug and alcohol abuse as well as criminal behaviour are typical examples (Omori & Ingersoll 2005: 17-33, Arnett 1992: 339-73). Greene *et al* (2000: 439-61) examined the contribution of egocentrism and sensation-seeking to risk-taking behaviour among adolescents and college students. They concluded that consistently high personal fable combined with high sensation-seeking explained risk-taking behaviour, in particular alcohol consumption and delinquency.

Risk-taking behaviours associated with adolescent egocentrism, such as irresponsible sexual activities and substance abuse, occur to a lesser extent in closely knit families where good relationships prevail (DeVore & Ginsburg 2005: 460-5). If risk-taking behaviour, associated with adolescent egocentrism, shows a decrease within a healthy parent-adolescent relationship, adolescents who enjoy a good relationship with their parents might be less egocentric. However, empirical evidence on parent-adolescent relationships and egocentric behaviour is needed to verify this assumption.

Three problem areas can be identified from the available literature. First, in a school the focus is mainly on teaching and factors relating to academic achievement. A developmental aspect such as adolescent egocentrism is often ignored. Like other developmental aspects such as personality and moral development, adolescent egocentrism should be addressed within the family. For this reason it is disappointing that only a few research reports have dealt with egocentrism in a family context over the past fifteen years (O'Connor 1995: 205-27, Artar 2007: 1215). Secondly, during adolescence egocentrism manifests itself in imaginary audience, personal fable and overestimation of responsibilities. Not all of these manifestations have previously been investigated in the context of parent-child relationships. Thirdly, parent-child relationships have not been adequately measured in previous research on egocentrism. Landman *et al* (1982: 104), for example, distinguish between a relationship of

trust, a relationship of knowing and a relationship of authority. It would be meaningful to determine how each of these relationships correlates with egocentrism during adolescence.

An empirical investigation was carried out to address these short-comings. The aims of the investigation were as follows: to establish how different categories of parent-child relationship (relationship of trust, relationship of knowing and relationship of authority) correlate with certain manifestations of egocentrism (imaginary audience, personal fable and overestimation of responsibilities); to determine the most important manifestation of egocentrism in a parent-child relationship context, and to analyse some of the egocentric responses of adolescents who have good relationships with their parents compared to those who have bad relationships.

In order to address the above aims, egocentrism had to be measured. No suitable measuring instrument within the South African context could be found for this purpose. A new measuring instrument had to be developed which adheres to normal psychometric requirements. The development of a new instrument and the verification of its psychometric characteristics can be considered an additional aim of the investigation.

1. Methodology

1.1 Participants

Schools in Gauteng and Mpumalanga provinces were approached at random to be involved in the research project. Three schools in Gauteng (in the Johannesburg and Pretoria area) and two schools in Mpumalanga (Nelspruit and Secunda area) responded positively. The schools represent learners from various population groups with an average socio-economic status. In each of the schools two classes were selected at random, taking into account that learners from grades 8 to 12 had to be included. From an analysis of the biographical data, the majority of the respondents (67%) came from a family where the mother is at home and the father is working. Nearly 74% of the respondents came from

families with two to three children. Table 1 illustrates the number of boys and girls in each grade.

Table 1: The number of boys and girls in each grade

Grade	Boys	Girls	Total
8	64	58	122
9	22	40	62
10	24	32	56
11	28	44	72
12	22	42	64
Total	160	216	376

More grade 8 learners were selected (122) due to the composition of the classes that took part in the research project. The average number of respondents in the other grades was 63. The total number of learners was 376 which can be considered a sufficiently large sample to establish patterns concerning egocentrism and parent-child relationships. The sample is also suitable to draw conclusions with regard to the reliability and validity of the newly developed measuring instrument.

1.2 Measuring instruments

1.2.1 Parent-child relationships

A questionnaire developed by Fourie (2001: 171) was used to measure parent-child relationships. Three categories of relationships were measured, namely a relationship of trust, a relationship of knowing and a relationship of authority.

- Relationship of authority

The 13 items in this category aim to determine how parents set rules and how adolescents experience parental authority. Examples of items are: My parents are often unfair. My parents explain the reasons for the rules that they lay down.

- Relationship of knowing

The 15 items in this category aim to measure to what extent adolescents' parents are interested in them and whether adolescents are of the opinion that their parents understand them. Examples of items are: I do not think that my parents really understand me. My parents like to be informed on what is going on at school.

- Relationship of trust

The 15 items in this category aim to determine whether there is mutual trust between adolescents and their parents. Examples of items are: I can discuss confidential matters with my parents. My parents are suspicious of my whereabouts.

For each of the categories, the respondent was asked to indicate a number between 1 and 6 on the following scale:

This is precisely how I experience it	1 2 3 4 5 6	This is not at all how I experience it

When the items for the different categories are added up, a total parent-child relationship can be obtained. Certain items were put inversely, but were corrected during the processing of the data so that a high score points to a good relationship and a low score to a bad relationship.

The questionnaire can be considered reliable since the *alpha* coefficients for each of the categories and the total parent-child relationship were above 0.7 (Schumacher & McMillan 2010: 184). The coefficients were 0.75 (relationship of authority), 0.88 (relationship of knowing), 0.91(relationship of trust) and 0.95 (total relationship).

1.2.2 Egocentric behaviour of adolescents

In order to measure imaginary audience and personal fable the measuring instruments developed by Enright *et al* (1980: 101-16) and by Lapsley & Duggan (2001) were used. Certain changes were made (for example, a six-point instead of a five-point scale was used). This necessitated the calculation of a new item analysis and new reliability coefficients. To measure overestimation of

responsibilities a new questionnaire was developed using the same six-point scale used to measure parent-child relationship and the other categories of egocentrism. Ten items were developed for each of the sub-categories of the egocentrism questionnaire.

Imaginary audience is an indication of adolescents' belief that others, in particular peers, are watching and thinking about them and are interested in their thoughts and behaviours. Examples of items used to measure imaginary audience: When I make a mistake everybody pays attention. People are always staring at me.

Personal fable reflects the adolescents' tendency to idealise their feelings, ideas and experiences which they consider to be unique, intense and beyond comprehension by others. Examples of items in this category: My parents will never understand me. Teachers cannot help me – I am too different.

Overestimation of responsibilities is an indication of adolescents' belief that they are doing more than their fair share, and that others are doing less than theirs. They concentrate so on their own input that they overlook the contribution of others. Examples of items in this category: When work is distributed, I receive most of it. I always get the most difficult tasks to do.

The same six-point scale used for the parent-child relationship questionnaire was used for the egocentrism questionnaire: the higher the score, the stronger the egocentrism category.

1.3 Procedure

The schools that were willing to take part in the project received a copy of the questionnaire to approve the content. The items which measure parent-child relationships were carefully evaluated to ensure that they do not offend parents in any way.

The respondents were informed that the obtained data were to be analysed for research purposes and that no information would be disclosed. It was also clearly stated to them that this is a voluntary exercise and that there is no obligation to take part in the project.

The questionnaires were completed within school hours. During the answering sessions of the questionnaires the instructions were

read out aloud to the learners. Learners were given the opportunity to ask questions on any indistinctness in the questionnaires. The learners took approximately one hour to complete the questionnaires. This same procedure was followed with all the learners in the different schools in order to obtain the required data.

2. Results

Since a new questionnaire was developed to measure egocentrism, an item analysis was done on each category. No items had to be omitted. Consequently, each category had 10 items. The item analysis also provided information on the reliability of the questionnaire. The *alpha* reliability coefficients for the categories were 0.80 (overestimation of responsibilities), 0.80 (imaginary audience), 0.78 (personal fable) and 0.91 (total egocentrism). Since all the coefficients were greater than 0.7, the measuring instrument can be considered reliable (Schumacher & McMillan 2010: 184). The coefficient of 0.91 for the total questionnaire is an indication of high reliability.

It was also necessary to obtain clarity regarding the construct validity of the newly developed egocentrism questionnaire. The questionnaire consists of different subsections, measuring different constructs. These are related to one another and to the total construct of the test since they all deal with egocentric behaviour during adolescence. One would, therefore, expect to find significant positive correlations among the constructs (subsections) and between each construct (subsection) and the construct measured by the questionnaire in total (egocentrism). If such correlations exist, the questionnaire is construct valid.

In order to determine construct validity, correlation coefficients were calculated between each of the subsections (imaginary audience, personal fable and overestimation of responsibilities) and between the subsections and the global construct measured by the questionnaire (egocentrism). Table 2 provides these correlation coefficients.

Table 2: Correlation coefficients between the subsections and the total of the egocentrism questionnaire

	Imaginary audience	Personal fable	Over-estimation of responsibilities
Personal fable	0.69		
Responsibilities	0.71	0.69	
Total	0.90	0.88	0.90

N=376. For all the correlation coefficients p<0.01

All the correlations appear to be high, positive correlations, significantly on the 1% level. The different constructs, therefore, strongly relate to one another as expected and consequently the ego-centrism test may be considered construct valid.

Correlation coefficients were obtained to establish how different categories of parent-child relationship are associated with certain manifestations of egocentrism (cf Table 3).

Table 3: Correlation coefficients between parent-child relationship and egocentrism

		Parent-child relationship			
		Trust	Knowing	Authority	Total
Egocen-trism	Im-aginary audience	-0.32	-0.42	-0.33	-0.39
	Personal fable	-0.52	-0.63	-0.54	-0.61
	Respon-sibilities	-0.41	-0.49	-0.43	-0.48
	Total	-0.46	-0.57	-0.48	-0.55

N=376. For all the correlation coefficients p<0.01

All the identified manifestations of egocentrism correlate negatively with the different aspects of parent-child relationship on the 1% level of significance. High egocentrism is associated with a low relationship between parent and child. The strongest negative correlation was that between personal fable and the relationship of knowing (-0.63). The correlation between egocentrism in general and the total parent-child relationship was -0.55.

The aim of the investigation was also to determine the most important manifestation of egocentrism in a parent-child relationship context. For this purpose a stepwise regression analysis was performed using imaginary audience, personal fable and overestimation of responsibilities as independent variables and the total parent-child relationship as the dependent variable (cf Table 4).

Table 4: Regression analysis using egocentrism manifestations as independent variables

Step	Variable	R^2	F	df	p
1	Personal fable	0.37	224.79	(1,374)	p<0.01
2	Responsibilities	0.38	115.32	(2,373)	p<0.01
3	Imaginary audience	0.39	79.39	(3,372)	p<0.01

In a regression analysis the independent variable showing the highest correlation with the dependent variable enters the model first. In this instance, it was personal fable, explaining 37% (R^2=0.37) of variance in parent-child relationship. This proportion was significant: $F(1,374) = 224.79$; $p<0.01$. Once the first variable is taken up in the model, the order of the remaining variables depends on their correlation with the dependent variable and with the variable(s) already in the model. The next independent variable explains the largest significant proportion of the remaining unexplained variance of the dependent variable. In this instance, it was overestimation of responsibilities, explaining an additional 1% of the variance in parent-child relationship. This additional proportion was significant: $F(2,373)=115.32$; $p<0.01$. Imaginary audience entered last,

explaining 1% more of the variance already explained by personal fable and overestimation of responsibilities: $F(3,372)=79.39$; $p<0.01$. In total, the different manifestations of egocentrism explained 39% of the variance of parent-child relationship during adolescence.

A stepwise discriminant analysis was performed to analyse the egocentric responses of adolescents who have good relationships with their parents compared to those who have bad relationships. These two groups were compiled using the cut-off points provided by Fourie (2001: 182). The items for the egocentric questionnaire were used as independent variables in the discriminant analysis (cf Table 5).

Table 5: Discriminant analysis using items of egocentrism questionnaire as independent variables

Step	Item	R^2	F	df	p
1	1	0.49	187.21	(1,190)	p<0.01
2	11	0.58	129.07	(2,189)	p<0.01
3	33	0.62	102.94	(3,188)	p<0.01
4	37	0.64	82.48	(4,187)	p<0.01
Wording of the items					
1. My parents will never understand me.					
11. I have no time for myself - I spend all my time doing schoolwork.					
33. My parents do not understand how difficult life has become.					
37. I have a unique view on a variety of matters.					

In a discriminant analysis the independent variable which differs the most between the identified groups enters the model first. In this instance, it was item 1, explaining 49% ($R^2 = 0.49$) of the difference between the mean of those adolescents with good parental relationships and the mean of those with bad parental relationships. The proportion explained was significant: $F(1,190)=187.21$; $p<0.01$. The next item was item 11, explaining an additional 9% of the difference between the means of the two groups. This additional proportion was significant: $F(2,189)=129.07$; $p<0.01$. The third item to enter the

model was item 33, explaining 4% of the difference not explained by items 1 and 11; $F_{(3,188)} = 102.94$; $p < 0.01$. The last item to enter the model was item 37, explaining an additional 2% of the difference between the means of the two groups with $F_{(4,187)} = 82.48$; $p < 0.01$. Not one of the remaining items could explain a significant larger proportion of the difference between the means. In total, items 1, 11, 33 and 31 explained 64% of the difference between the means of those adolescents who experience a good relationship with their parents and those who experience a bad relationship.

3. Discussion

No suitable instrument within the South African context could be found to measure egocentrism. One of the purposes of the investigation was to develop a new instrument which adheres to normal psychometric requirements. The items that were used to measure imaginary audience and personal fable were adapted from an existing questionnaire. Overestimation of responsibilities, which was not previously measured in an adolescent egocentrism context, was added as a third category, making the new questionnaire more unique.

The questionnaire can be considered reliable. The *alpha* reliability coefficients were 0.80 for overestimation of responsibilities, 0.80 for imaginary audience, 0.78 for personal fable, and 0.91 for total egocentrism. The coefficient of 0.91 for the total questionnaire is an indication of high reliability.

A correlational approach was used to verify the validity of the questionnaire. Since imaginary audience and personal fable are typical manifestations of egocentrism during adolescence there should be a positive correlation between the two constructs. One would also expect a positive correlation between overestimation of responsibilities and imaginary audience as well as personal fable. The expected correlations were obtained. The correlation coefficient between the typical manifestations of egocentrism was 0.69 ($p < 0.01$). Overestimation of responsibilities, which was not previously measured in an adolescent egocentrism context, correlated positively with

imaginary audience (0.71; p<0.01) and personal fable (r = 0.69; p<0.01), and could therefore be considered a valid manifestation of egocentrism during adolescence.

In addition to the development of a new measuring instrument, the investigation set out to meet three other aims: to establish how different categories of parent-child relationship (relationship of trust, relationship of knowing and relationship of authority) correlate with certain manifestations of egocentrism (imaginary audience, personal fable and overestimation of responsibilities); to determine the most important manifestation of egocentrism in a parent-child relationship context, and to analyse some of the egocentric responses of adolescents who have good relationships with their parents, compared to those who have bad relationships.

As far as the first aim is concerned, all the correlations between egocentrism and parent-child relationships were negative. This implies that high egocentrism can be associated with low parent-child relationship. This corresponds with the findings of both Adams & Jones (1982: 25-31) and Riley *et al* (1984: 401-17) who found that perceived parental emotional support is associated with lower levels of adolescent egocentrism, whereas perceived parental rejection is associated with higher levels of egocentrism. It appears, as Ryan & Kuczkowski (1994: 219-38) have suggested, that insecure attachment to parents may contribute to the adolescent's continuous insecurity in a social environment that will reflect in higher levels of imaginary audience. The same applies to personal fable. A negative relationship with parents may enhance adolescents' sense of uniqueness and minimise their ability to appreciate the views of others (O'Conner 1995: 205-27).

As far as the second aim is concerned, the strongest negative correlation was that between personal fable and the relationship of knowing (-0.63). This is an indication that adolescents who believe that their parents are not interested in them and do not understand them are probably those who also believe that their feelings and experiences are entirely unique and beyond the comprehension of their parents. Their parents have never experienced what they experience

or at least not on the same level or with the same intensity. Therefore their parents can be of little help to them.

The correlation between the total egocentrism score and the total parent-child relationship score in the current investigation was -0.55. If this correlation is compared with that between other factors and parent-child relationship, adolescent egocentrism appears to be an important factor that was overlooked in the past. Michael & Ben-Zur (2007: 24) obtained a correlation of -0.51 ($p < 0.01$) between depression and adolescent-parent relationship while Zimmer-Gembeck & Locke (2007: 7) obtained a correlation of 0.33 ($p < 0.01$) between active coping at home and relationship with parents in a family context. Bester (2007: 184) correlated parent-adolescent relationships with sixteen personality variables, measured with the 16-Personality Factor questionnaire. The highest of the sixteen correlations ($r = 0.40$; $p < 0.01$) was between emotional stability and parent-child relationship. The correlation of -0.55 between egocentrism and the parent-child relationship therefore shows that adolescent egocentrism could make a significant contribution when parent-child relationship is investigated from a multivariable approach. This conclusion is also supported by the results of the regression analysis which showed that 39% of the variance in parent-child relationship can be attributed to the egocentric behaviour of adolescents.

As far as the third aim is concerned, four items from the egocentric questionnaire seem to discriminate effectively between those adolescents who have good relationships and those who have bad relationships with their parents. The four items could explain 64% of the difference between the means of the two groups. In the light of these items it is possible to describe adolescents who will, most probably, experience relationship problems with their parents. These adolescents believe that they are so unique and special that their parents will never understand them. They are convinced that they are doing more than their fair share of schoolwork (most probably because of parental pressure). They are of the opinion that their circumstances are so exclusive and complicated that it is beyond their parents' comprehension, and they believe that their parents judge them too critically.

These beliefs bear an element of unrealistic thought. A misunderstanding between parent and child might sporadically occur, but it is unrealistic for adolescents to be convinced that their parents will never understand them. The same applies to the opinion that their circumstances are so unique and complicated that it is beyond their parents' comprehension. These unrealistic thoughts will have to be changed within the family. This cannot be addressed at school. Parents might need counselling in this respect, especially in severe cases were the egocentric nature of adolescents results in parental conflict or risk-taking behaviour. A cognitive behavioural approach might be successful in this regard. If unrealistic thoughts can be replaced by realistic ones, egocentrism might decrease and the relationship with parents could improve according to the results of this investigation. The application of a cognitive behavioural approach within a family context to address egocentric behaviour could be considered for a future research project.

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