

The Role of Family and Parental Characteristics in the Scope of Social Encounters of Children in Homeschooling

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Abstract Homeschooling, a phenomenon that is increasingly widespread in the Western world, raises questions regarding the ability to supply children in this framework with adequate social encounters. Despite evidence regarding the importance of these encounters for children in homeschooling, there is insufficient data concerning the sources of differences between homeschooling families in the scope of these social encounters. The present study examined the relationships between a child's social encounters and socioeconomic aspects of the family, parental personalities, and the way homeschooling is practiced. One hundred and forty parents who homeschooled their children completed questionnaires about themselves, their families, and their children, as well as the social interactions of their children. The findings indicate that parental personalities and the way homeschooling is practiced correlated significantly with the social encounters of homeschooled children. Parents' conscientiousness was associated with a greater number of social encounters and more structure in the homeschooling. This article presents possible explanations for these findings, theoretical implications of the findings and possibilities for further research.

Keywords Homeschooling · Home education · Social encounters · Socioeconomic status · Parental personalities

Introduction

In recent years, there has been a considerable expansion in the phenomenon of home education. This expansion is significant in many Western countries but it is particularly noticeable in the United States, the leader in the number and percentage of learners in home schooling (Kunzman and Gaither 2013). In Israel the practice is still relatively limited (about 600 families), but the number of families that homeschool has also grown significantly in the past two decades (Guterman and Neuman 2016a, 2016b). It is easy to think of homeschooling as a recent phenomenon, but in fact, it is a return to a much older model of schooling than the one we are familiar with today (Davis 2011). The establishment of the state as a central, responsible body that administers and controls the process of children's learning and education is in fact a relatively new phenomenon in the history of humanity, just a few 100 years old. In fact, when the state began to obligate parents to send their children to school, there was significant opposition on the part of the parents (Provasnik 2006). From this point of view, homeschooling represents a return to a much older model of education.

However, the situation today is clearly very different from the situation that existed before formal schools became so accepted. In the past, the community in which the child grew up was the sole basis for the social world of the child and family. Holiday celebrations took place in the community and social relationships were created there. In the

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community, children learned about the traditions of the group to which they belonged. Today, the school has taken on a significant part of this role. Children learn about holidays and traditions in school; they are taught there about the history of their country and their people. Schools hold ceremonies for the children and even for families, schools arrange field trips for the children, and so on. In effect, most of children's social relationships are formed in school, and even relationships between parents are formed at school in some cases (Greenfield and Cocking 2014; Wentzel and Looney 2007). When these data regarding the social importance of school is taken into account, it is easy to understand the many fears that are raised regarding the influence of home education on children's social relationships (Medlin 2000).

A number of studies regarding the social encounters of homeschooled children have been conducted. Ray (1994) surveyed 1485 children in homeschooling to get a picture of their social lives. He found that they were involved in a wide variety of activities with a diverse group of people, from friends in their peer group to adults outside their families. On average, the children spent 12 h a week with children who were not their siblings. Sixty percent of them were regularly involved in sports groups, 82% in Sunday school, 48% in music classes, and 93% in recreational activities outside the family. In addition, 45 percent of the children participated in academic lessons with other children outside the home. In further research, Ray (1997, 1999) found that on the average, children in home schooling were involved in 5.2 activities outside the home per week, and 98% of them were involved in two activities or more. These activities included Scouts, dance lessons, sports groups, and volunteer activities. Nelsen (1998, p. 35) claimed that: "children in homeschooling are exposed more frequently to a wider variety of people and situations than children in school, whose exposure is limited to 25–35 people of their own age and socioeconomic background."

Regarding the type of social relationships formed by children in homeschooling, Chatham-Carpenter (1994) found that children in homeschooling were in contact with 49 different people in the span of a month, while children in school were in contact with 56 different people. However, there were significant differences in the quality of the encounters. The homeschooled children met with people of a greater variety of ages, while the children in school met with a higher percentage of people from their peer group. In both groups, there was the same number of close friends (3–5), despite the fact that their social networks appear somewhat different (in terms of the variety of ages).

Guterman and Neuma (2016a, b) examined the relationships between the scope of social encounters of homeschooled children and emotional and behavioral problems regarding internalization and externalization. In the

research, a significant negative relationship was apparent between the scope of social encounters that homeschooled children had with other children and internalization and externalization problems; that is, as the scope of social encounters was greater, the level of internalization and externalization problems was lower.

It appears that parents understand the importance of social encounters for homeschooled children intuitively, since a number of researchers have shown that the socialization of children in homeschooling is important to their parents. For example, Medlin (2013), who summarized numerous studies on the social context of children in homeschooling, claimed that homeschooling parents expect that their children will respect and get along with people of different backgrounds, provide their children with a variety of social opportunities outside the family, and believe that their children's social skills are as good as those of other children. In their research for the National Foundation for Educational Research (in England), Atkinson et al. (2007) found that parents recognized the importance of providing children with opportunities for socialization and used diverse sources of support to fulfill this need. Parents mentioned family and friends, local homeschooling groups, religious and community organizations, sports programs and the Internet as sources of social relationships for their children. Gathercole (2007) concluded that parents in home education tended to encourage their children to participate in a variety of activities and actively search out these opportunities for them.

Rothermel (2002, 2011), who studied 100 homeschooling families in England, also reported that socialization was very important to parents. The evidence for this was the effort that parents made to ensure that their children wouldn't suffer as a result of less exposure to their peer group compared to children who attended school. A number of families described themselves as making efforts to form friendships with other families. The parents thought that this behavior was rational; since their children were not in school, they were afraid that others wouldn't always think to invite their children to social events. Similar findings were noted in the research of Neuman (2003) and Neuman and Aviram (2003, 2008) regarding the importance of children's social relationships for parents of homeschooled children and the many efforts they invested in this area.

However, previous research has demonstrated considerable differences among parents in terms of the scope of their children's social encounters. In other words, the number of encounters varied greatly among families (Guterman and Neuman 2016a, b). In light of the findings cited above regarding the importance of social encounters for children in homeschooling, it is essential to understand the source of these differences. This understanding is important both for practical reasons, to be able to help and guide

homeschooling families, as well as for theoretical reasons, to understand the dynamic underlying the way in which these families practice homeschooling.

Examination of these issues requires consideration of the degree of structure of the homeschooling. Earlier studies have indicated broad differences among families in the ways they implemented homeschooling (Ricci 2011). One of the most common distinctions employed in the literature on this subject is between structured homeschooling and unstructured homeschooling, or unschooling (Hanna 2012; Martin-Chang et al. 2011; Van Galen 1988). Structured homeschooling is based on a schedule with predetermined hours of study and the content of learning is decided by the parents; unstructured homeschooling generally relates to learning that originates from the child's desire for knowledge and understanding. Therefore, learning of this type is not based on a schedule for learning planned by the parents, and the content is not dictated in advance by them. Clearly, the division between families who practice these two types of homeschooling is not dichotomous, but rather a continuum (Barratt-Peacock 2003).

Furthermore, in homeschooling, the interaction between parents and children is more intensive than usual (when children attend school), because the parents and children spend much more time together. In this complex situation, the examination of the five basic personality traits, though important, may not provide a full picture of the situation. Therefore, it is also essential to examine the parents' style of close relationships from the perspective of attachment theory, which is widely accepted in the study of personal and developmental processes.

For this reason, in the present study we chose to examine, in a group of homeschooling families, the relationship between various central aspects of parents and the family and the frequency of social encounters. We focused on the socioeconomic factors of the family and on various key aspects of the parents' personalities. In addition, the present study examined the degree of structure of the homeschooling process used by each family. This research was based on several hypotheses: First, there will be a positive correlation between extroversion and the scope of social interaction. Second, there will be a correlation between avoidant attachment of the parents and less social encounters of the child. Finally, structure in homeschooling will be correlated with more social relationships.

Method

Participants

The participants in the study included 103 women (74.11%) and 36 men (25.89%), a total of 139 parents of children

from 139 different homeschooling families in Israel. One hundred and thirty-one of the participants were married and eight were single. The number of children in the family ranged between 1 and 7, with an average number of 2.36 and a standard deviation of 1.19. The average education of the mothers was 15.32 years, with a standard deviation of 1.72. The average education of the fathers was 15.07 years, with a standard deviation of 2.28. In 105 of the families, the mother was the dominant figure in the practice of homeschooling; in 4, the father was the dominant figure; and in 30 of the families, the parents said they divided the implementation of homeschooling equally between them.

Procedure

The participants were recruited at weekly homeschooling gatherings. In Israel, most of the families that engage in homeschooling attend regional meetings of this type. The researchers announced ahead of time that they would arrive at the gatherings in order to present research findings and to hold a conversation about homeschooling. In addition, participants were informed in advance that before the presentation of data and the conversation, questionnaires would be handed out to the parents. Before the distribution of the questionnaires, it was explained that the goal of the questionnaires was to conduct research on the homeschooling population. The questionnaires were anonymous and did not contain any identifying details. Eight percent of the participants refused to fill out the questionnaires (12 out of 151). After the questionnaires were completed, the goals of the study were explained in full detail and the participants were given an opportunity to ask questions.

Measures

The study made use of the big five inventory (BFI) questionnaires, a parental attachment questionnaire, and a demographic questionnaire.

Demographic questionnaire

The parents completed a demographic questionnaire about themselves and their family, including features such as number of children in the family, education, and family income. In addition, part of the questionnaire requested details on the average number of hours devoted to scheduled learning each week for each child in the family. The questionnaire also addressed the number of weekly social encounters that each child had with children outside the family. This measure was based on the literature reviewed in the introduction to the present article, in which the scope of social encounters of children was estimated according to reports by their parents.

BFI questionnaire

The Big Five Inventory questionnaire, or BFI (John et al. 1991) examines five main personality traits: neuroticism, openness to experiences, extroversion, conscientiousness, and agreeableness. The questionnaire is composed of 44 short descriptive phrases representing different personality traits. The participants rate themselves on each trait using a scale of 1–7, ranging from (1) disagree strongly to (7) agree strongly. By averaging the relevant items, a separate score for each of the five personality traits was acquired. In the present study, Cronbach's alpha coefficients were 0.85 for extroversion, 0.76 for agreeableness, 0.89 for conscientiousness, 0.86 for neuroticism, and 0.77 for openness to experiences. It is interesting to note that the results obtained on this questionnaire among home-schooling parents were similar to those reported in other studies conducted parents who did not homeschool.

Parental attachment questionnaire

The experience in close relationship scale (Brennan et al. 1998), which was translated into Hebrew by Mikulincer and Florian (2000), is a self-reporting questionnaire composed of 36 items on attachment. Eighteen items examine the dimension of anxiety, and another 18 items examine the dimension of avoidance. For each item, the participants rated the degree to which it describes their feelings in close relationships on a scale of 1–7, ranging from (1) disagree very strongly to (7) agree very strongly. For each participant, a score was calculated for each of the two dimensions of attachment separately, by averaging the items related to each dimension. In the present study, Cronbach's alpha coefficients were 0.85 for anxiety and 0.91 for avoidance.

Data Analyses

To examine the relationship between the personality and socioeconomic variables and the child's social encounters, Pearson correlations were calculated. Hierarchical regression analyses were used to examine the contribution of the above-mentioned variables to the explained variance of the child's social encounters. This method of analysis enables examination of the combined effect of the variables, and not only relationships between any two variables. In the first stage, a regression was performed which included all the variables mentioned above, even though some were not found to be linked to the child's social encounters. The purpose of this analysis was to determine whether these variables contributed as a main effect or through an interaction with other variables. In the second stage, a hierarchical regression was performed that included variables that had been found to be linked to children's social

encounters, whether as a main effect or through an interaction.

The final regression included five steps. In the first step, socioeconomic characteristics of the family—number of children, mother's education, and family income—were introduced. The father's education, which was not found to be linked to the scope of a child's social encounters, was not introduced into the regression. It is important to note that the introduction of socioeconomic variables into the regression was based on their interaction with other variables. In the second step, the parent's attachment avoidance was introduced. Parental attachment anxiety, which was not found to be linked to the scope of a child's social encounters, was not introduced into the regression. In the third step, the parent's levels of extroversion, conscientiousness, and agreeableness were introduced. The rest of the elements of the Big Five questionnaire were not introduced since they were not found to be linked to the scope of a child's social encounters. In the fourth step, the number of weekly hours devoted to learning was introduced. The fifth step included the introduction of the interaction between the demographic characteristics X parents' personality characteristics, interactions which enable us to examine whether the contribution of personality characteristics to the child's social encounters depended on the demographic characteristics. In the first four steps, the introduction of the variables was forced, while in the fifth step, interactions were entered only if they contributed significantly ($p < .05$) to the explained variance.

Results

The Pearson correlations showed that attachment avoidance was negatively correlated to the child's social encounters ($r = -.24$, $p < .01$); the higher the mother's attachment avoidance, the lower the child's social encounters. Conscientiousness was positively linked to the child's social encounters ($r = .18$, $p < .05$); the higher the level of conscientiousness, the higher the child's social encounters. The number of hours devoted to learning was also positively linked to the child's social encounters ($r = .29$, $p < .01$); the higher the number of hours devoted to learning, the higher the child's social encounters.

The hierarchical regression coefficients are presented in Table 1.

As can be seen from Table 1, in the first step, in which mother's education and family income were entered, no significant contribution to the explained variance was found. In the second step, in which attachment avoidance was introduced, a significant contribution of 6% was found. Avoidance was negatively linked to the scope of a child's social encounters; in other words, as the level of the

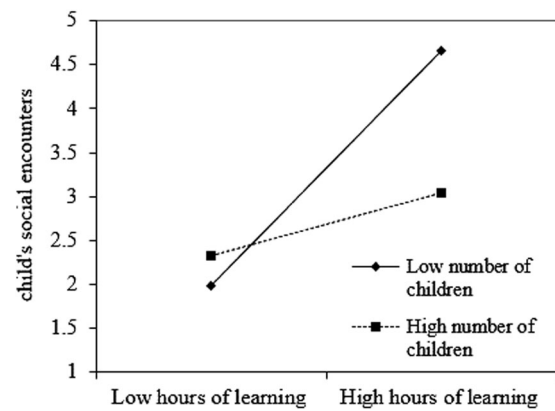
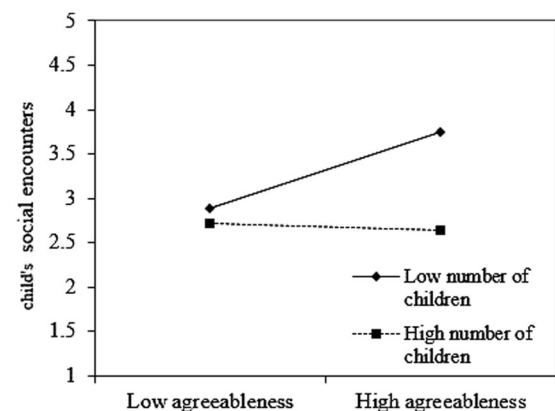
Table 1 Hierarchical regression coefficients explaining the variance in the scope of social encounters with children ($N = 139$)

Predictor	ΔR^2	β
Step 1	.01	
Number of children		.06
Mother's education		.05
Step 2	.06*	
Avoidance		-.24**
Step 3	.07*	
Extroversion		.18*
Conscientiousness		.21*
Agreeableness		.15*
Step 4	.10***	
Hours devoted to learning		.45***
Step 5	.17	
Number of children X Hours of learning		-.49***
Number of children X Agreeableness		-.24**
Mother's education X Agreeableness		.22**
Total R^2	.41***	

* $p < .05$; ** $p < .01$; *** $p < .001$

mother's avoidance increased, the scope of the child's social encounters decreased. The third step, in which extroversion, conscientiousness, and agreeableness were introduced, added a significant contribution of 7% to the explained variance in the scope of a child's social encounters. Extroversion, conscientiousness, and agreeableness were all found to be positively linked to the child's social encounters; as the levels of extroversion, conscientiousness, and agreeableness rose, the number of the child's social encounters rose as well. In the fourth step, in which the variable of the number of weekly hours devoted to learning was introduced, a significant contribution of 10% was seen to the explained variance in the scope of the child's social encounters. The number of hours devoted to learning was positively linked to the child's social encounters. In other words, as the number of hours devoted to learning increased, the child's social encounters increased. In the fifth step, three interactions contributed significantly to the explained variance: number of children X hours devoted to learning, number of children X agreeableness, and mother's education X agreeableness. These interactions added 17% to the explained variance.

To clarify the interactions, Aiken and West's method (1991) was used. Figures 1 and 2 present a graphic description of interactions of the number of children X the

**Fig. 1** The relationship between hours of learning and scope of social encounters in families with many children and families with few children**Fig. 2** The relationship between agreeableness in the child's social encounters in families with many children and families with few children

number of hours devoted to learning and the number of children X agreeableness.

From the analysis of these interactions, it appears that in families with few children, there is a significant positive correlation between the number of hours of learning and the child's social encounters, $\beta = .90$, $p < .001$, and likewise between parental agreeableness and the child's social encounters, $\beta = .32$, $p < .01$. In other words, in this group, as both the number of hours devoted to learning and the level of agreeableness increase, the child's social encounters also increases. Among families with many children, a positive and significant contribution was also found, albeit much weaker, between the number of hours devoted to learning and the child's social encounters, $\beta = .22$, $p < .05$. No significant correlation was found between agreeableness and the child's social encounters, $\beta = -.05$, $p > .05$.

Figure 3 presents a graphic description of the interaction between mother's education X agreeableness, in a regression that relates to the child's social encounters.

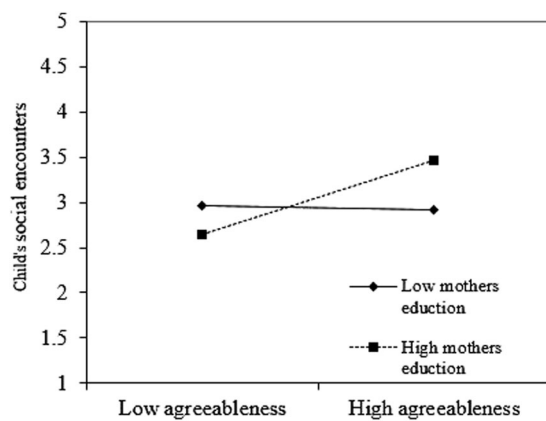


Fig. 3 The relationship between agreeableness and the child's social encounters in families with highly educated mothers and families with less educated mothers

From the analysis of the interaction, we see that among highly educated mothers, there was no significant correlation between agreeableness and the scope of a child's social encounters $\beta = .03$, $p > .05$. In contrast, among mothers with a low level of education, there was a positive and significant correlation between agreeableness and the scope of a child's social encounters, $\beta = .29$, $p < .05$; in other words, among this group, as the mother is more agreeable, the scope of the child's social encounters widens.

Discussion

In the present study, we found a relationship between the scope of a homeschooled child's social encounters and central aspects of the family and the parents. A strong and positive relationship was found between the weekly hours devoted to scheduled learning and the scope of a child's social encounters; families in which more hours are devoted to scheduled learning are characterized by a higher number of social encounters with other children. It is interesting to note that this relationship was stronger in families that had a smaller number of children.

It is possible to explain this relationship in several ways: first, in previous research some of the parents described social encounters as regularly scheduled meetings devoted to learning, such as classes for homeschooled children, joint field trips to museums, and so on (Guterman and Neuman 2014; Neuman 2003). That is, it may be that the relationship between structure in homeschooling and the scope of a child's social encounters stems from the fact that some of the hours devoted to learning are based on community social activities. In other words, families maintain structured learning processes in a homeschooling framework as well as in a framework of social encounters; those who believe in the need for more hours of structured learning will

encourage more hours of scheduled learning both at home as well as in a social setting.

Another explanation for the findings might view both activities, social and educational, as linked to the degree of the parent's initiative as well as their tendency to be goal-oriented. This explanation points to certain behaviors and attitudes—willingness of the parent to invest resources, to plan ahead, and to initiate—as being the factors behind the ability to initiate and maintain social relationships as well as situations that enable the creation of social ties. These factors also seem to be behind the ability to build a clear program of study and follow through on it. This explanation is also consistent with an additional finding in the present study, which points to the link between parental conscientiousness and the child's social encounters.

These two explanations presented for the findings also allow us to understand why the correlation between the hours devoted to learning and the child's social encounters is stronger in families with fewer children. Regarding the use of social encounters as a basis for learning, it is possible that in families with more children, it is easier to facilitate group learning within the family, since the group of siblings functions as a multi-age learning group. In this situation, there is less need to meet with other families for group learning. In contrast, when families with fewer children are interested in facilitating learning in a social context, they must participate in social encounters.

Regarding the explanation that refers to parental personality, it is possible that parents of children with few siblings feel a greater need to initiate social encounters. That is, it may be that siblings fulfill some of a child's social needs. In this situation, the parents' tendency to initiate will be expressed more in families with fewer children, since the need for social connections outside the family is more significant from the parents' point of view. In future research, it would be interesting to examine these ideas using qualitative research that would examine how parents address this issue in families with different numbers of children. In addition, in future research, it would be interesting to map the types of social encounters and the activities that occur there and in this way to examine whether indeed some of the social encounters were directed toward learning.

With regard to the personality variables, a significant contribution was found in three variables: agreeableness, conscientiousness, and extroversion. Regarding these three variables, a positive relationship was found between them and the child's social encounters; the more conscientious, agreeable, and extroverted the parents, the wider the scope of the child's social encounters. We believe that these findings are important, since they show that parental personality traits contribute significantly to the social life of children in homeschooling.

It is interesting to see that these relationships were found to be similar despite the fact that there are three separate influences. Conscientiousness is linked to the ability to focus on a goal and to plan, to be consistent and to demonstrate responsibility. It appears that this trait is linked to the parent's willingness to invest effort in creating situations that facilitate social encounters. Extroversion is linked to the level in which a person is involved in a social group, active and assertive. It appears that for these parents it is easier to form social ties with other parents and therefore easier to initiate connections that enable the creation of social situations for the child. Agreeableness is linked to kindness, tact, willingness to participate, and generosity. It appears that more agreeable people create a more comfortable atmosphere and facilitate the creation of social ties between parents and, indirectly, between children.

Regarding agreeableness, it was found that in families with few children, agreeableness was positively linked to the child's social encounters; in this group, the more agreeable the parents, the greater the scope of the child's social encounters. This relationship was not found in families with a larger number of children. Similarly, it was found that among families in which the mother was highly educated, agreeableness was positively linked to the child's social encounters; the more agreeable the parent, the greater the scope of the child's social encounters. This relationship was not found in families with less educated mothers.

These findings may be explained through the hypothesis that parent's agreeableness does in fact assist in the creation of the child's social ties, but only when the parent has the appropriate motivation. That is, as previously mentioned here, siblings may partially fulfill a child's social needs. In this situation, parents in families with many children may feel less of a need to create social ties. When there is less of a need, the advantage of agreeableness plays less of a part, and therefore the link between parental agreeableness and the child's social encounters is not significant.

A similar explanation may be given regarding parents' education. For example, more educated parents may be more aware of the child's social needs and make greater efforts to create social opportunities for the child. In this situation, when the parent is aware and makes an effort, the advantage of agreeableness in forming social ties becomes apparent. In future research, it would be interesting to examine in greater depth the link between these variables and parental motivation in forming social ties for the child.

The finding regarding the attachment style was also consistent with the other personality findings. A negative correlation was found between parental avoidance and the scope of a child's social encounters; the higher the level of avoidance, the smaller the scope of a child's social encounters. Attachment avoidance is linked to a negative

feeling towards close relationships and intimate situations (Brennan et al. 1998; Fraley and Waller 1998; Fraley et al. 2000; Shaver et al. 2000). This difficulty may be expressed in the parent's avoidance of close relationships with other parents and therefore makes the formation of social opportunities for the child more difficult.

Despite the interesting findings from this research, the present study has a number of significant limitations. First, since the research is a preliminary study in the field, we chose to focus on central personality factors, but of course the research did not examine other important aspects of personality such as locus of control, care-giving and others. In future research, it would be interesting to examine these personality factors and others in terms of their effect on the scope of the child's social encounters.

Second, in the present study we examined the child's social relationships without distinguishing between different types of relationships. Previous research findings show that the type of relationship may also be important (Guterman and Neuman 2016a, 2016b). In future research, it would be interesting to examine the effect of parental personality separately on different types of relationships.

Finally, it is important to note that the present study was conducted in a single country, Israel. Although there are many similarities among Western countries, each country has its own specific social and educational conditions. Against this background, the ability to generalize the findings of the present research to other countries may be limited. It is hoped that the present research will serve as a basis for examination of the same important questions in additional countries in which the practice of homeschooling is increasing.

Despite these limitations, since this study examine the link between personality and parental background and the child's social encounters for children in homeschooling, it paves the way for future research in the field. The high explained variance which is seen in the findings of this study indicates that parents have a significant influence on the social world of homeschooled children. Since in contrast to their age-mates who attend school, homeschooled children are not in a framework in which they meet with other children on a daily basis, the issue of a child's social relationships becomes critical. This study provides a basis for understanding the factors that underlie differences between families in the scope of the children's social relationships. Therefore, these findings provide a theoretical contribution to understanding differences between families and the factors that underlie these differences. In addition, the findings lay important groundwork for professionals who work with homeschooling families, since they point to aspects that are likely to assist in or interfere with the formation of a child's social relationships. Because of the importance of this issue, we hope that the present study provides a foundation for

future research that will expand our understanding of the field.

Author Contributions OG designed and executed the study, analyzed the data, and wrote the paper. AN designed and executed the study, assisted with the data analyses, and wrote the paper.

Compliance with Ethical Standards

Conflicts of Interest The authors declare that they have no competing interests.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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