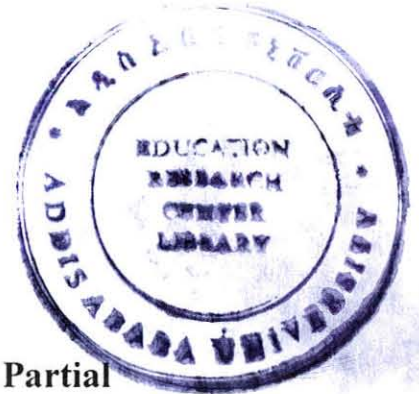
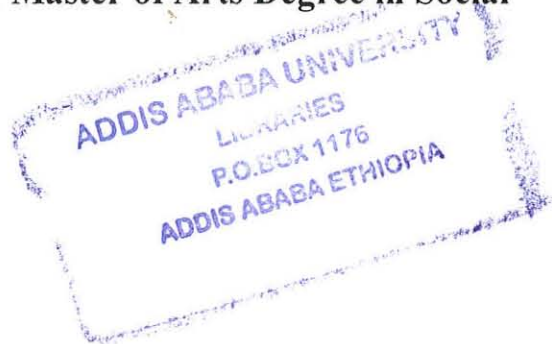


**Addis Ababa University  
School of Graduate Studies  
College of Education and Behavioral Studies  
Institute of Psychology**

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**A Thesis Submitted to the School of Graduate Studies in Partial  
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**TESFAYE DESALEGN FANTAW**

**June, 2010  
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CHILDREN IN ADDIS ABABA**

**BY: TESFAYE DESALEGN FANTAW**

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## ABSTRACT

To investigate the altruistic behavior of home reared, institutionalized, and street children, one-hundred seventy four subjects ranging from seven to eighteen years were administered a prosocial motivation questionnaire (PSMQ). Equal numbers of subjects were taken from each group; with equal number of male and female subjects; and with equal number of subjects from each age category. Homogeneity of variance assumption was found to be tenable using Levenes test of homogeneity of variance. Normality of the distribution of altruistic behavior in the population was also found to be tenable employing a Chi square test. First one-way between-subjects ANOVA tested the effects of residential setting on the altruistic behavior of home-reared, institutionalized and street children. Second a 2(sex: male, female) x3(residential setting: home reared, institutionalized, street children) x3(age :7-10, 11-14, 15-18) factorial analysis of variance tested the effects of sex, residential setting, and age on the altruistic behaviors of home-reared, institutionalized, and street children, respectively. Third, a 3(family size:small,medium,large)x3(birth order: first born, last born, neither)x3(maternal presence:alive,donnot alive, separated) factorial analysis of variance tested the effects of family size, birth order, and maternal presence on the altruistic behaviors of home-reared children. Since there are six constructs underlying the PSMQ, each of the above methods was performed on each of the six altruistic orientations. Results of the one-way between-subjects ANOVA on the six altruistic orientations by residential setting for the three residential settings were not equal ( $P < 0.005$ ). An a posteriori multiple comparison procedure showed significant difference between these pairs of means. Results of a 2x3x3 factorial analysis of variance using sex residential setting and age indicated significant result for the main effects of residential setting factors on hedonistic oriented altruism ( $F(2,171) = 112.016, P < 0.0005$ ), on task-oriented altruism ( $F(2,171) = 22.078, P < 0.0005$ ), on self oriented altruism ( $F(2,171) = 86.314, P < 0.0005$ ), on conformity oriented altruism ( $F(2,171) = 26.848, P < 0.0005$ ), on empathetic oriented altruism ( $F(2,171) = 110.341, P < 0.0005$ ), and on others oriented altruism ( $F(2,171) = 54.622, P < 0.0005$ ). This test also showed significant result for the main effects of the sex factor on self oriented altruism ( $F(1,172) = 6.082, P = 0.015$ ), on conformity oriented altruism ( $F(1,172) = 9.435, P = 0.003$ ), and other -oriented altruism ( $F(1,172) = 4.542, P = 0.035$ ). However, significant results for the main effects of the age factor on none of the six altruistic orientations was obtained. Results of a 3x3x3 factorial analysis of variance among home reared children on the six altruistic orientations by birth order, family size, and maternal presence indicated significant result for only the main effects of the maternal presence factor on hedonistic oriented altruism ( $F(2,55) = 5.378, P = 0.008$ ), and on self oriented altruism ( $F(2,171) = 4.496, P = 0.017$ ). However, significant results were not found for the main effects of the factors family size and birth order on the six altruistic orientations. The results highlighted the importance of residential setting, sex and maternal presence to the variation in the altruistic behavior of children. In all, these results were interpreted as suggesting that it may not be residential setting alone that is important for the motivation of altruistic (helping) behavior but other background variables of sex and maternal presence have also contributed to it.

# CHAPTR ONE

## 1. INTRODUCTION TO THE RESEARCH PROBLEM

### Overview

This chapter is organized in seven subsections. The first subsection presents backgrounds to the research problem. The second subsection is devoted to presentation of the research hypothesis, which presents the working, or alternative hypothesis formulated to solve the problem of interest. The third subsections deals with justifications, which presents how does the study relate to, differ from, or build on previous reports in altruistic behaviors. The fourth subsection explores significance of the study and it explores the importance of studying altruistic behavior. The fifth and the sixth subsection describes of the study respectively. Finally, the last subsection explores limitation that were faced by the student researcher and anticipated to affect the generalizability of the findings and application of the results.

### 1.1 Background

Humanitarian concerns reflect larger changes in human styles of interaction (Weiss, Boyer, Lombardo, & Stick, 1999). In relation to these Batson et al (1995) stated that “although there have been considerable fluctuations in the patterns of societal and individual interaction over centuries, in general, with the passage of time, human kinds inhumanity to itself had decreased as humanitarian concerns have increased”. Supporting this argument Katz (2001) suggested that attitudes towards the dignity of human life, and toward slavery, torture, and similar issues have, on average, become more humanitarian. Furthermore, in accordance with this conclusions Krebs (2000) on his part added that as humanitarian attitudes have increased concern for the weak, helpless, poor, and sick and other needy or dependent groups including children has increased. Investigating this condition Buckley, Winkel and Leary (2004) speculated that such a shift in perspective may well have laid the group work for-and, perhaps stimulated an interest in the development of positive behaviors and concern for others.

In lights of the above arguments, Gest (2001) have also regarded helping behavior as one of the elementary behaviors necessary for the survival of human beings indicating that “in view of their biological and physical limitations throughout their lives human beings function numerous times as helpers and helpees”. In the same fashion Batson and Shaw (2001) indicated that it is almost impossible to imagine any social group in which individuals do not help one another. Regarding this point MacDonald and Leary, (2005) have indicated that the importance of helping has long been recognized, and even ancient religions had placed special emphasis upon the value of helping others. To illustrate this point it is sufficient to take a verse from the Amharic version of the Holy Bible which reads:

«ባንዝልም በጊዜው እናጭዳለንና መልካም ሥራን ለመስራት አንታክት።  
እንግዲያስ ጊዜ ካገኘን ዘንድ ለሰው ሁሉ ይልቁንም ለሀይማኖት ቤተሰቦች  
መልካም እናድርግ።» (ወደ ገላትያ ሠዎች 6 ፩፡9)

When it is directly translated into English, it means that “let us not be weary in well doing: for in due season we shall reap, if we faint not. As we have therefore opportunity, let us do good unto all men, especially unto them who are of the household of faith.” It implies that since all human being reap what they did to others, it would be important to do good deeds for others. It is also logical for people to think that when human beings help others (especially, the poor), they are also doing it for God so that the Lord will pay for their good deed. This biblical statement motivates people to be engaged in altruistic or prosocial behavior and it also indicates that the values and beliefs about the importance of helping others is rooted in the society even starting from early times. Concerning this point Baumeister, Twenge and Nuss, (2002) indicated that in the modern world, helping behavior can be found at every level of human social functioning. To substantiate their point they stated that “for example, at the inter-societal level, countries provide aid to other countries; at the intra-societal level, society has established various institutions that help the poor, sick, weak, or deprived; and at the interpersonal level, individuals help one another as part of the functional ongoing interactions”. A similar point was made by Twenge et al (2007) who suggested that “there are no known societies in which most of the people prefer to live in social isolation, such as in solitary cabins in the woods. Instead, people always prefer to live with each other in social groups and within a cultural

framework”. Regarding this point, in a recent series of studies by Buckley et al(2004) it has been indicated that culture improves the biological outcomes (survival and reproduction) of individuals, so people do what is required to belong to it. These authors have suggested that most cultures encourage and even require prosocial behavior because it is vital to the system. For example in Amhara culture, there is a saying, which state that:

«ድር ቢያብር  
አንበሳ ያስር»

This means that when spider webs unit they can tie up a lion. From this point, one might argue that this cultural belief gives higher credit (value) for altruistic behavior in the sense that it implants cooperative and helping behavior in children with in which they were socialized. It implies even the weakest spider webs, when cooperate and help each other, could tie the strongest of all animals, the lion. In addition, other Ethiopian cultures, which were not stated here might have also their own sayings, which are spoken by socializing agents, and which might motivate prosocial or altruistic behavior on the part of their growing children.

Simply put, as previously noted by different scholars it is clear that human beings often perform the prosocial acts that are encouraged by their culture because such acts enable them to belong to it and to enjoy its rewards. Concerning this point Falk and Kosfeld(2004) underlined the basic question of “what happens when belongingness is withdrawn or threatened?” They answer this question by themselves stating that prosocial behavior is not unlike delay of gratification in which current virtue is to be rewarded latter, adding that “if the delayed rewards are perceived as unreliable, there is much less reason to be good now”. In the same fashion, Baumeister et al (2002) concluded that a threat to one’s sense of belongingness might reduce one’s willingness to perform prosocial acts. They reasoned out for their conclusion that prosocial behavior depends on believing that one is part of a community in which people mutually seek to aid, support, and, occasionally, to love each other. In a similar study DeWall and Baumeister(2006) indicated that when people feel excluded their inclination to perform such behaviors should be reduced or eliminated (DeWall & Baumeister. To substantiate this point it

would be sufficient examining a local saying, which springs from a cultural value that motivate people to be altruistic and which reads like:

«ዘመድ ቢረዳዳ  
ችግርም አይጎዳ»

It means that poverty will not strike people if they cooperate. This implies that greater results could be achieved only when people cooperate and help each other. This cultural value will be internalized by the growing children from whom one can infer the likelihood of altruistic behavior that might result from conformity to this cultural values of Amhara. This by implication meant that, if children feel socially excluded their inclination to perform or to put into action the saying that states «ዘመድ ቢረዳዳ ችግርም አይጎዳ» will be diminished or reduced or totally eliminated.

Supporting the above situations, correlation research has linked social rejection with decreased prosocial behavior, although it is unclear which one is the cause of the other. Numerous co relational studies have found that children who are rejected by their peers, parents or any other person during their early childhood period act less prosocially than do others (e.g Gest, Graham-Berman, & Hartup, as cited Twenge et al, 2002). In amore comprehensive study others have found that prosocial actions are highly correlated with social acceptance (e.g Parkhurst & Asher, 1992; Schonert-Reichl, 1999). Investigating this condition previous studies conducted by Cochran and Bo (1989) and Romig and Bakken(1992) concluded that Children and adolescents who are from stable, cohesive families and who have other sources of adult support are more likely to act in caring and prosocial ways.

These findings make it plausible that exclusion simply makes people less motivated to act prosocially. In relation to this point Wentzel and McNamara(1999) indicated that social exclusion may impair some inner responses that are needed for prosocial behavior. To support this indication they reasoned out that the inner state resulting from social exclusion may gear one to cope with threats rather than to be nice to others. Again, correlational findings lend credence to that idea stating, “children with fewer friends show deficits in major prosocial skills such as moral reasoning and empathic sensitivity

to other people's distress" (e.g. Dekovic & Gerris, 1994; Barnett, 1999; Schonert-Reich, 1999). Likewise, in the research reviewed by Anan and Barnett (1999) it has been indicated that Children with low social support are also more likely to interpret other people's ambiguous actions as aggressive.

More notably, a recent investigation by Maner, DeWall, Baumeister, and Schaller (2007) found that "excluded people typically desire to form new social bonds, as indicated by greater interest in interacting with potential partners, optimistic assessment of others as friendly, and the assignments of positive evaluations (with cash rewards) to people they expect to meet; although they did not assign positive evaluations to other people". To this similar point, MacDonald & Leary (2005) have indicated that social exclusion may be experienced as a betrayal of trust, as one thinks that one has been acting to earn the rewards of belongingness-but finds that those rewards have been abruptly withdrawn (or at least threatened). The rationale they gave for their indication is that prosocial behavior requires effort and sacrifice, and to continue to make those efforts and sacrifices when one does not anticipate the rewards of belonging would amount to foolishly allowing one self to be exploited by others.

Advocating the same notion of the link between social exclusion and altruistic behavior, it is important to highlight backgrounds of Ethiopian children in light of its impact on altruistic behavior. Hence, in Ethiopia it was estimated that 100,000 children are leading street life and 500,000 children are at an extremely high risk of involving in street life (Tacon, 1991). In Addis Ababa, the numbers of street children were estimated to be between 29,000 and 40,000 (NCC, 1998; Tsegaye, 1988; RAD, 1994). There are also 20,000 institutionalized children under 124 governmental, non governmental and community based institutions in Ethiopia (UNICEF, cited in Gobena, 1993). In Addis Ababa, there are 16 institutions providing foods, shelter, clothing and education for 2917 children (Addis Ababa city administration social and labor affairs Bureau, 2001). Investigating these conditions, previous studies link street life and institutionalization with decreased altruistic behavior. For example, Hegarty (1996) Indicated that that society calls street children as "abandoned" which implies a morally

repugnant act and a history of living with “immoral” parental figures, were regarded as “criminals” due to their lack of family contact, and were declared as having “no culture roots”. Regarding the impact of cultural values on parenting or child rearing, noting the importance of parental figures on children’s behavior, the Amhara curse a naughty boy as:

«አሳዳጊህ አይደልም!»

It means that your care takers are responsible for your behavior! It implies that the Amhara cultural value gives a lion’s share for parental figures (especially the father) for the child to develop “good” behavior. It also meant that great responsibility is given for the caretaker to shape the child’s behavior during the periods of early childhood. In addition, other Ethiopian cultures, which are not stated here, may have similar values or their own cultural values which might be different from this point concerning the roles of parental figures or care takers on children’s behavior. Scar as cited in Frew (1994) and Tizard (1006) on their part stated that isolation from the surrounding community (living in deprived and neglectful environment) and having no parental figures don’t facilitate normal development for children in the sense that it deprives children’s individual identity, making them a pathetic, rebel and refuse to cooperate and help others.

The foregoing reason suggests that, the idea that street children and institutionalized children lack adequate care, nurturance, parental warmth; and perception of the society towards them as social threat, abandoned, criminal, immoral and dishonest implies that they are socially excluded which in turn leads them to experience lack of concern for others or to behave less altruistically. Hence, on the basis of the above findings, the major reasons that inspired or prompted the investigator to conduct such a comparative study on the altruistic behavior of home-reared, institutionalized and street children are the following: (1) presence of some doubt in the mind of the researcher with regard to the role of environmental factors (residential settings) in affecting children’s altruistic behavior (i.e. doubting that environmental settings might have psychological impact in addition to other background variables) and;(2) the interest to know which environmental setting or background variable contributes to altruistic behavior of children; (3) increasing number of street children and institutionalized children in Addis Ababa which

are more likely to be socially excluded and; (4) the psychological literature linking social exclusion with decreased altruistic behavior as indicated above and; (5) presence of little scientific investigations in the areas of altruism, knowledge gaps and controversies regarding scientific knowledge on altruistic behavior; and (6) finally ,specially, since research linking environmental factors to altruistic behavior is not researched well.

In summary, the premises of the present comparative study on the altruistic behavior of home-reared, institutionalized and street children is that social exclusion would contribute to a significant reduction in altruistic behavior on the ground that exclusion causes a reduction in sensitivity to pain and a lack of emotional response (DeWall & Baumeister, 2006). And, by deduction, the primary hypothesis of the present study is that the home, the institutions and the street or collectively operationalized as residential settings in which children (subjects of the study) were existed would contribute to their manifestation of different altruistic behavior on the assumption that these Microsystems they were exposed and grown up differ in terms of social exclusion and acceptance that the children might obtain from people nearby. It is obvious for instance to understand that children who were socialized in these different environmental settings are exposed to different cultural values and beliefs regarding the importance of altruistic acts. To illustrate this concept, it would be sufficient to take the local saying that states:

«ብቻውን የበላ  
ብቻውን ይሞታል::»

This means that one who eats alone will die alone. It implies that people must eat together, must share their resources or material to the poor or to the one who might be below their social status. Indirectly, the value of sharing one's resources and eating together is related to the value of helping fellow human being. In relation to this point, it is obvious that children in the street, the home, and the institution are likely to be exposed to different cultural values that preach the importance of altruistic acts; or at least children in the street and the institution might be less likely to be exposed to this cultural beliefs and values that preach the essence of altruistic acts since they are not grown at home to assume parental social roles and beliefs.

## **1.2 The Research Hypothesis**

Concern about the effects of group care on young children has been investigated in recent years, especially in light of the increasing number of children attending such facilities (Belsky, Steinberg, & Walker 2004, Turner & Smith, 2002). According to Belsky et al, (2004) number of working mothers of young children tripled between 1990 and 1996. It is projected that by 2015 there will be 11.5 million young children in need of institutional care. Roup and Travers (1994) pointed out that in 1990, 47% of children below age 13 who were in non relative care were attending child-care institutions. Because the majority of children enrolled in such institutions spend over 30 hours per week in attendance (Travers, Goodson, Singer, & Connell, 2001), a responsibility falls upon the institutions to provide for children's social, emotional and cognitive development, as well as to meet more needs that are basic. Concern about the effectiveness of childcare institution in facilitating children's development has sparked wide debate. The focus of this research is on the manner in which the institutional care experiences affect children's social development as reflected in the quality of their responses to the PSMQ that consisted of six altruistic orientations by comparing them with home reared and street children.

Previous studies have produced inconsistent and often directly conflicting conclusions about the effects of childcare on children's social development. Studies comparing children at childcare institutions with home reared children, for example, have found that a group institutional care experience is related to positive peer interaction (Cochran, 2003; Lay & Meyer, cited in Belsky & Steinberg, 2004) better communication (O'Connell and Farran, 2001) & more advanced levels of play (Rubenstein & Howe's, 1999). Conversely, the effects of institutional care relative to home-rearing have also been found to include greater propensity for verbal and physical aggression and less cooperation with adults (Schewarty, Strick & Krolick, 2000) less sharing in interaction with adults (Everson, Ambron, Sarnat, Kermoian & Wenegrat, 2003) and less compliance and obedience to rules (Rubenstein, Howes, & Boyele, 1991). Other studies have shown no notable differences between institutional-care and home care children in social behaviors (Cornelius & Dennay, 2005; Cross & Cochran, 2003; Roopnarine & Lamb, 2000). This implies that there were inconsistencies in research findings on the effect of

residential setting on altruistic behavior of children. This makes it justifiable to research the effect of residential setting by using children of the home, the institution and the street.

Advocating the same notion, MacDonald & Leary (2005) reviewed considerable evidence that indicates social exclusion causes animals to become less sensitive to the pain of others. Recent laboratory work by Dewall and Baumeister (2006) with human participants confirmed that exclusion causes a reduction in sensitivity to pain and a lack of emotional responses. In relation to this Derman (1996) in particular stressed “excluded people were less empathic toward a confederate who bemoaned either a recent romantic breakup or a physical injury; and, the emotion system is thereby rendered temporarily inoperative”. This implies that, since, people need their emotions to understand others, prosocial behavior could be impaired after social exclusion. Hence, the focus of the current study on the influence of streets and institutionalization on the altruistic behavior is based on the assumption that these residential or environmental settings in which the street child & the institutionalized child has been grown are socially excluding than the home setting, and hence expecting a difference in scores of altruistic behavior as a dependent variable. Since the scores of subjects on the six altruistic orientations qualitatively differ with regard to reasoning to an altruistic act, they were not added. Therefore, each research questions is answered based on scores of subjects on these six orientations indicated under the section on “operationalization” by each independent variable in the study. More briefly, in the literature it has been indicated that social exclusion has negative relation with prosocial action; and in the case of the present study the environmental settings of the child, namely; the institution, the home setting, and the street were assumed to have differing influence on the altruistic behavior of the subject because of the presumed differences they impose on the development of the child in terms of social exclusion (rejection) and acceptance.

Based on the above views, the present study on altruistic behavior considered residential factors, birth order, family size, maternal presence or absence, sex, and age as a contributive variables for the development of altruistic behavior as assessed by the six

altruistic orientations. Above all, at initial level, the student researcher has a hunch based on readings on social learning, cognitive developmental and psychoanalytic theoretical perspectives in addition to his observation when people donate blood and sacrifice their life for others. The fact that is evident from the psychological literature is that people differ in altruistic behavior and the speculation in the present study here is that environmental factors or residence might be a prime factor. In addition, background variables of subjects: birth order, maternal presences, age, family size and sex were considered as secondary research hypothesis. The main purpose is therefore to test whether there exists a significant difference in altruistic behaviors among children of the home, the child-care institution and the street. Thus, to achieve these purposes the following working or alternative hypotheses were formulated in such a way this hunch could be tested:

1. The mean in each of hedonistic, self, conformity, other, task and empathetic-oriented altruistic behaviors for home reared, institutionalized and street children are not equal are not equal.
2. There is a difference in the mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among children with in the three age categories.
3. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors for home reared children with different birth order in the family are not equal.
4. There is a difference in the mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among male and female subjects of the study.
5. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors for home reared children whose mothers are alive, do not live, and who were separated from their mothers are not equal.
6. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among home reared children with large, medium and small family size are not equal.

### 1.3. Justification

The justification of the student researcher to conduct such a study on altruistic behavior was that since researches on positive behaviors such as helping, sharing and cooperation is limited unlike studies on ant-social behavior (Eisenberg, 1992; Hetherington & Park, 1993; Fehr & Gächter, 2002). Similarly, more recently, the link between altruistic behavior and social exclusion is investigated by only few researchers (e.g. Twenge, Baumeister, & Nuss, 2002). Concerning the research done in the areas of altruistic behavior in Ethiopia, it was conducted by Habtegiorgis Berhane in 1994, who attempted to study the altruistic motives of Ethiopian children. Another research on areas of altruistic behavior was attempted by Argaw Biru in 2001. These studies consider residential setting as the sole factor ignoring other independent variables for instance birth order, family size, age, sex and maternal presence which are more likely to affect children's altruistic behaviors. Even more these studies did not see for the interaction effects of the different variables. This implies that very little is investigated concerning altruistic behaviors. Filling this knowledge gaps is the primary justification of the student researcher among others to conduct the present study on the area of altruism by considering residential settings of home, institution and street; and independent background variables of family size, age, sex, birth order, maternal presence versus absence, and religion as independent measures which were presumed to affect altruistic behavior- which was assessed by the six altruistic orientation subscales .

Moreover, the rationale of the researcher for proposing to study comparatively the altruistic behavior of home reared, institutionalized and street children is due to his curiosity in every day life encounters that people commonly engage in activities that are costly to themselves and mostly benefit others; questioning firstly why they volunteer, help strangers, vote, give to political or charitable organizations, donate blood, join rescue squads and sometimes sacrifice their life for strangers. The second rationale is presence of knowledge gaps, controversies and little scientific investigations in the area of altruism, as opposed to aggression and other antisocial behaviors. The definition of altruism as indicated by Rushton(1995) is also a matter of controversy. Some define it in terms of underlying motivations such as empathy or intention, while others prefer

definitions in terms of behavioral effects such as “that which benefits others”. The present study, based on the idea that residential settings affect the altruistic orientations of children residing in different environmental setting. This is because it is widely assumed among the scholars that social exclusion causes a reduction in altruistic behavior as indicated in the background and the fact that the three residential settings differ in terms of social exclusion and acceptance. In general terms, the present comparative study on the altruistic behavior of home reared, institutionalized, and street children is justifiable for the following reasons:

- ❖ The increasing number of street children and institutionalized children in Addis Ababa who are more likely to be socially excluded; and the psychological literature linking social exclusion with decreased altruistic /prosocial behavior.
- ❖ The curiosity of the investigator in every day life encounters of why people commonly differ in engaging in activities that are costly to themselves and mostly benefit others e.g. why they donate blood and sacrifice their life. That is there is a difference in altruistic behavior and this difference may be accounted by environmental factors. And, the researcher considers some environmental factors that shape the socialization experiences of subjects as a factor in addition to some background variables of sex, age and grade level that affect altruistic behavior in search of answer to the above question.
- ❖ Presence of little scientific investigations in the areas of altruism as opposed to aggression and other antisocial behavior. In addition, there are knowledge gaps and controversies regarding scientific knowledge on altruistic behavior. This is explicitly indicated in chapter two.
- ❖ A research area linking environmental factors to altruistic behavior is at its infancy; and, hence not researched well.
- ❖ Hence, examining environmental factors that influence altruistic behavior of children is justifiable for its practical implications.

#### **1.4 Significance**

Regarding the significance of altruistic behavior Klein (1992) stated the following “the benefit of cooperation are decreased hostility, greater accomplishment, and stronger interpersonal attachment. Cooperative behavior has positive effect on both individuals

and their society: It is imperative that our social system institute techniques to increase cooperative motives in a society plagued with distrust and loneliness". A similar point was made by McDonald and Leary (2005) who justified that because of its importance, helping behavior (i.e. availability of supportive, helping individuals and institutions) is considered to be one of the basic aspects of a high level of "quality of life". They argued that improvement of the quality of life has become one of the major objectives of modern society. In relation to this point Leahy(1999) also remarked that it is not surprising that individuals try to build interpersonal relationships based upon concern for others, understanding, sensitivity, and willingness to extend help. This view can be supported by the findings of clinical and epidemiological research. Such research indicates the significance of interpersonal support for the development of the adaptively functioning individuals and for the maintenance of their physical and mental health (McDonald & Leary, 2005, p. 203). For example, social support has been identified as one of the important factors predicting longevity (Baumeister, Twenge & Nuss, 2002) in view of these findings, a preventive approach, which is widely accepted in the area of mental health can be used with regard to promoting helping behavior as an antidote against undesirable behaviors (Bertson, 1991). These all implies that altruistic behavior is crucial for the functioning of the social system and its' individual entities and thus studying whether residential settings affect altruistic behavior is important for improving policies and programs about socially excluding environmental settings so as to create adaptively functioning individuals and societies.

More specifically, as stated in Twenge et al (2007), Lewin expressed that it has long been recognized that the psychological influence of the environment on the behavior and development of the child is extremely important. According to them, all aspects of the child's behavior, hence instinctive and voluntary behavior, play, emotion, expression, are codetermined by the existing environment. Similarly, some recent theories, notably those of Watson and Adler, assign to environment so predominant an influence upon development that hereditary factors are usually neglected (Batson, Klein, Highberger, & Shaw, 1995, p. 84).By deduction, focusing on the influence of environmental settings on

altruistic behavior of children; the outcome of the present study might be significant in that it may:

- ❖ Provide further evidence with respect to the role of environmental or residential factors in influencing altruistic behavior of children.
- ❖ Suggests on whether background of children such as sex, age, birth order, family size, maternal presence or absence, and religion, affects the altruistic behavior of children.
- ❖ Provide an interesting and useful piece of information for the growing literature on altruistic behavior. I.e. it might serve as a spring board from which other researchers can explore the issue more deeply employing different methods and subjects.
- ❖ Serve for policy makers and welfare institutions to adjust their policies and programs so as to reduce criminal behavior that can be emanated from living in streets and problem behaviors developed due to socially excluding environmental settings.
- ❖ Pinpoint some of the gaps and weakness in the work in prosocial behavior and to stimulate integration of this work with research and theory on other aspects of development of altruistic behavior in children.

### **1.5 Delimitation**

There could be many variables that may facilitate or hinder the development of children's altruistic behavior. But, the scope of the present study was delimited topic wise to investigate the influence of some of the environmental settings (institutions, streets and homes), and background variables of sex, age, family size, birth order, maternal presence or absence, and religion on altruistic behavior of children. It does not include biological, situational factors (e.g. mood states), cultural, and religious values and beliefs. In addition, area wise, it was delimited to Addis Ababa city administration.

### **1.6 Operationalization**

As it was described by Eisenberg-Berg (1997) even if researchers wished to restrict the domain of behaviors examined to the specific group of behaviors consistent with a particular definition of altruism, it would be difficult to do so because an observer seldom knows for certain why one person assists another. This implies, more specifically that it is frequently difficult to discern if a particular positive behavior was performed

intentionally or not, or if it was carried out for extrinsic rewards (such as approval or concrete rewards), and or if the actor was genuinely concerned with the potential recipient's welfare. In relation to this point Falk and Kosfeld (2004) recommended that "Usually what the best researcher can do is to try to make inferences regarding an actor's motive from contextual variables or the actor's verbalization considering genetic or ecological variables". Although, the terms prosocial behavior and altruism frequently have been used interchangeably (Mussen & Eisenberg-Berg, 1997), researchers increasingly have used the term prosocial behavior to designate helping, sharing, and other seemingly intentional and voluntary positive behaviors for which the motive is unspecified, unknown, or not altruistic (Eisenberg, 1992, p. 6). The need to distinguish altruism conceptually, as well as empirically, from the larger domain of intentional positive behaviors (prosocial behaviors) may encourage the use of one/more differentiated vocabulary. Therefore, the key terms used everywhere in the present study are operationalized to give the following meanings:

1. Altruistic behaviors of children: in this paper refers to helping or sharing or prosocial behaviors of children as a result of the following different types of altruistic motives as measured by the PSMQ:
  - 1.1 Hedonistic-oriented altruism: helping others to satisfy their own needs or wants by expecting future reciprocity
  - 1.2 Self-oriented altruism: helping others for gaining self-respect for their own.
  - 1.3 Conformity-oriented altruism: helping others to gain the audiences' approval and acceptance.
  - 1.4 Task-oriented altruism: helping others to see the consequences of their act on the other person.
  15. Other-oriented altruism: helping others with the objective of providing benefit to the other person.
  - 1.6 Empathetic-oriented altruism: helping others by feeling the same as the others.
2. Home-reared children: in this paper refers to children brought up in a family with at least one of their biological parents' psychological support and care.
3. Institutionalized children: children brought up in a child-care institution without their biological parents' psychological support and care.

4. Street children: children with no family links who are outside of a normal family environment.
5. Residential setting: refers to the home, the childcare institution and the street area where children are residing or living.
6. Maternal presence was assessed according to whether the mothers of the home reared children have been alive, does not alive or separated by any means.
7. Birth order was assessed according to whether the home reared children are first-born, last-born or neither in the family.
8. Family size is assessed according to whether the child is living in a family consisting of small (1-4), medium (5-7) or large (>7) persons living together.

### **1.7 Limitations**

The results of the present study can not be applied to the whole population of street children in the world, in Africa or in Ethiopia. This is because it was conducted only in Addis Ababa using limited number of subject's i.e. limited samples for reasons of feasibility. In addition, the study did not explore causal links among different environmental settings, and backgrounds of subjects, and on the other hand altruistic behavior. It did only show the contributions, influences, effects and relation among these variables. That is, as it has been suggested by Penner & Finkestein (1998), causal links among motivations, attributions, and contributions can only be assessed more accurately by post hoc justifications using laboratory experiments and longitudinal surveys rather than cross sectional (one-time) surveys/ questionnaires that ask people to self report their motivations for helping others. The other limitation was the reliance on self report method, especially to get information about the reason for altruistic behavior might make the data vulnerable to social desirability bias. Since helping others for personal gain is contrary to social norms, self reports are likely to overestimate internal reasons for helping and under report external justifications such as social approval and career advancement. However, to decrease such problem of social desirability subjects were not told that some response items are good and others are bad, and the researcher assumes that respondents might not want to appear "good", and answer in such a manner as to be perceived that way.

# CHAPTER TWO

## 2. REVIEW OF RELATED LITERATURE

### Overview

This chapter is organized in five subsections. The first subsection presents definitions of altruistic behavior, methodological issues and the relationship between prosocial moral reasoning and prosocial behavior. The second deals with factors affecting altruistic behavior. These include environmental (residential) setting, sex, age, religion, family size, birth order, parental presence/ absence and parental inductions. The third and fourth subsections are devoted to the presentations of the motives of altruistic behavior and the methods of studying altruistic behavior. Finally, the last subsection explores the research approaches to the study of altruistic behavior using hypothetical moral dilemmas.

### 2.1. Definitions of Altruistic Behavior

Researchers do not always agree on the definitions of the term altruism or altruistic behavior. This lack of consensus reflects a larger lack of agreement in the field. Part of the reason for this disagreement probably is the newness of the topic-the fact that the study of altruistic behavior is just emerging from its infancy (Eisenberg, 1992, p. 3). Another reason of differences of opinion with regard to definitions is that definitional issues involve conceptual and theoretical nature of prosocial and altruistic behaviors (p. 4). A look at the following definitions and/or comments regarding altruism and prosocial behavior illustrates the point:

1. Bar-Tal and Raviv (1992) defined it as voluntary and intentional behavior carried out for its own end to benefit a person, as a result of moral conviction in justice and without expectation for external rewards. According to them, it is one type of helping act that is at the highest level of quality.
2. Twenge, Catanese, and Baumeister (2003) defined it as actions taken to benefit another for reasons other than extrinsic rewards.
3. Hoffman (1992) defined it as helping or sharing behavior that promotes the welfare of others without conscious concern for one's own self interest.

4. Krebs (2000) defined it as willingness to sacrifice one's own welfare for the sake of another.
5. Underwood and Moore (1992) defined it as behaviors done with the apparent.
6. Zahn-Waxler and Radke (1992) defined it as a regard or devotion to the interests of others.
7. Rushton (1992) defined it by excluding the possibility of external reinforcement by suggesting that the definitions should be stripped of their nonobservable characteristics.

In summary, as indicated above, there are considerable variations among these definitions of altruism. For some researchers, altruism is defined as explicitly excluding behavior motivated by external reward (e.g. Bar-Tal & Raviv, Twenge et'al & Hoffman); for others, it is not so (e.g. Rushton). Where as most definitions of altruism seem to imply that an altruistic act is intentional, not all require that altruistic behavior be motivated by the desire to benefit another. Furthermore, some researchers explicitly state that another's welfare must be the primary concern (e.g. Krebs, Hoffman, Underwood & Moore, Zahn-Waxler & Radke-Yarrow); others do not restrict the range of motivations other than to eliminate extrinsic rewards (e.g. Twenge et al); and still others explicitly include motives in addition to concern for another (e.g. Bar-Tal & Raviv) as one might infer from the above definitions.

### **2.1.1. Methodological issue**

As is true for any other social behavior, it is difficult to obtain accurate measures of prosocial behavior as it naturally occurs (O'Connor, Cuevas & Dollinger, 1999). In contrived settings, such as laboratory, measurements may not be ecologically valid. However, it is difficult to obtain observation of prosocial behavior as it naturally occurs because of subjects' responses to being observed- that is, the tendency for people to act in other than a natural manner when they know they are being observed (Falk & Kosfeld, 2004). Furthermore, data on prosocial behavior obtained by verbal report may be inaccurate owing to purposeful distortions, lapses of memory, or misrepresentation stemming from unconscious psychological need (Eisenberg-Berg & Hand, 1999). In brief, there are potential advantages and disadvantages inherent in measures of prosocial

responding. Thus, researchers recommend combinations of all the research methods. In the present study the altruistic behavior of children on the six altruistic orientation subscales was assessed by presenting these children's with hypothetical situations that demand different quality of altruistic reasoning. It implies that the subject's score on the six altruistic orientations reflect their altruistic behavior on which the effects of residential setting, sex, age, family size, and birth order, maternal presence, and religion was assessed using factorial analysis for each of the six altruistic orientations.

### **2.1.2. Studying prosocial behavior using prosocial moral reasoning:**

Researchers have found relationship between prosocial moral judgment and prosocial behavior (Manner, Dewall, Baumeister, & Schaller, 2007). Contrary to this, it is expected that children's reasoning regarding conflicts about solely prosocial issues is not always related to the occurrence of prosocial behavior in a situation entirely different from that about which moral reasoning has been elicited (Baston, 1998). To many authors however conclude that even if prosocial moral judgment may not entirely be consistent with prosocial behavior, they recommend to use self report of subjects to the study of altruistic behavior (Baldwin, Baldwin, Castillo vales, and Seegmiller, 1991). Simply put ,in the present study it is assumed that the altruistic behavior of subjects is determined from their reasonings to the prosocial moral dilemmas that they were presented with-which was seen in terms of the six altruistic orientations separately for each hypothesis or basic research questions presented in the previous sections.

Furthermore, the use of the self report of the subjects to story situation involving prosocial motivation in the present study with an attempt to compare the altruistic behavior of home neared, institutionalized and street children was justified by Eisenberg(1997) as follows “although moral judgments are obviously just that-judgments and not behavior-research on reasoning regarding prosocial behaviors is useful for delineating the range of conscious motives that underlie children's behavior at a given age; whereas it has not been proved that young children's behaviors are usually motivated by the considerations they express in their reasoning, the fact that there is often an association between prosocial behavior and reasoning is consistent with the assumption that children's reasoning frequently reflects their motivations”. This implies that children's

reasoning to their reported altruistic behavior to the story situations reflect their altruistic motivations.

## **2.2. Factors Affecting Altruistic Behavior**

### **2.2.1. Sex**

Cross cultural work has verified that gender differences in prosocial responding are not limited to only a few cultures and may develop with age (Whiting & Edwards, 1993). Similarly, Fabes and Eisenberg (1996) found that with increasing age sex differences in prosocial behavior tended to get larger, although this effect was eliminated once other study qualities were controlled. They implied that no gender differences were found when the measures of empathy /altruistic behavior were either physiological or unobtrusive observation of nonverbal behavior. Similarly, Carlo et al (1992) found that girls use some of relatively sophisticated types of prosocial moral reasoning than do boys. Paradoxically, other studies have found no sex differences in helping, or boys are more helpful than girls on some issue like active rescue behavior (Shaffer, 1998). In sum, these differences may result from differences among measures in the degree to which both the intent of the measure was obvious and people could control their response (Eisenberg, 1997). In addition the differences in sex in prosocial responding might seem to have resulted from stereotypic gender roles. For example in Ethiopian culture females are expected and believed to be more responsive, empathic and prosocial than males. The families also expect boys to be more independent and achievement oriented. In relation to this point, the researcher argues that the cultural orientations of different societies that expect girls to be responsive reinforce them to be more altruistic. This might be that because girls perform what the society expects them to do. Eagly and Crowley (1986) indicated that girls and women's may be more likely to be more likely to embed prosocial actions in personal relationships, where as boys and men may be more likely to engage in impersonal, instrumental acts of prosocial behaviors differences in reported altruism may increase as children become more aware of, and perhaps are more likely to internalize in their self image, sex role stereotypes and expectations (Carlo et al (1996).Eisenberg and Lennon (1983) in a meta analytic review found large differences favoring females for self report measures of altruistic behavior, especially questionnaire indexes (with effect sides

of 0.60) and observational measures (in which a combinations of behavior and facial reactions usually were used, 0.29). This might be because children's prosocial moral reasoning does not reflect merely children's desire but they may react in a socially acceptable manner. In relation to this, Carlo et al (1996) have indicated that in adolescence femininity is positively related to internalized prosocial moral reasoning (but also related to hedonistic reasoning for boys).

### **2.2.2. Age**

Bar-Tal and his Colleagues (1990) found some support for their hypothesized developmental changes in children's motives for helping. They found that older children tend to assist more often than do younger children in contexts in which the effects of compliance and rewards or costs are minimized. Similarly, Bar-Tal and Nissim (1994) found a decrease with age in self oriented, internalized, and altruistic motives and reasons for prosocial behavior. Bar-Tal and Raviv (1992) also obtained results indicating that the quantity of helping behavior increases with age during late childhood. In relation to this, Rushton (1992) stated that as children grow older they learn to be more empathetic, to adhere to moral principles, and to be more altruistic. In the same way, Bar-Tal and Nassim (1994) found that the motives for helping behavior develops with age and the quality of helping act changes as a result of age. They further specified that preschool children express mainly hedonistic motives for helping acts; but as they increase in age, they begin to express motives based on normative requirements and empathetic feelings. Contrary to these findings, Peterson (1990) found that when children, specially trained on relevant tasks, age related increases in helping evaporated. The difference in these findings might be influenced by the focus of the researchers on varieties of methodological factors involving focus on changes in cognitive, social, motivational emotional, physical processes and capabilities. This implies that some may focus on cognitive changes, while others focus on social changes in their study of altruistic behavior. That is, there might be a difference in perspectives when they study altruistic behavior.

### **2.2.3. Religion**

The belief that God will reward or punish us can have powerful motivating effect (Vander, 1997). Durkheim, as cited in Bar-Tal and Raviv (1992) suggested that moral

education has its own basis for the development of high quality of helping behavior. To substantiate this point, let me take the following biblical statement of the Amharic version:-

«--- ንጉሱም በቀኙ ያሉትን እንዲህ ይላቸዋል:- እናንተ የአባቴ ብሩካን ኑ አለም ከተፈጠረበት ጊዜ ጀምሮ የተዘጋጀላችሁን መንግስት ውረሱ:: ተርቤ አብልታችሁኛልናፏ ተጠምቼ አጠጥታችሁኛልናፏ እንግዳ ሁኔ ተቀብላችሁኛልናፏ ታርገዬ አልብላችሁኛልናፏ ታምሜ ጠይቃችሁኛልናፏ ታስሬ ወደ እኔ መጥታችኋልና:: ገድቃንም መልሰው ይሉታል ጌታ ሆይ ተርቦህ አይተን መቼ አብላንህ? ወይስ ተጠምተህ አይተን መቼ አጠጣንህ? እንግዳ ሆነህስ መቼ ተቀበልንህ? ወይስ ታርዘህ አይተን መቼ አለበስንህ? ወይስ ታመህ ወይስ ታስረህ አይተን መቼ ወዳንተ መጣን? ንጉሱም መልሶ:- እውነት እላችኋለሁ ፏ ከሁሉ ከሚያንሱ ከነዚህ ወንድሞቹ ላንዱ እንኳ ስላደረጋችሁት ለእኔ አደረጋችሁ ይላቸዋል::»

When this is directly translated into English this means that “shall the king say unto them on his right hand, come, ye blessed of my father, inherent the kingdom prepared for you from the foundation of the world. For I was an hungered, and ye give me meat: I was thirsty and ye give me drink: I was stranger, and ye took me in: Naked, and ye clothed me: I was in prison and ye come unto me. Then shall the righteous answer him saying, Lord, when saw we thee an hungered, and feed thee? Or thirsty, and give thee drink? When saw we thee a stranger, and took thee in? Or naked, and clothed thee? Or when we saw thee sick, or in prison, and came unto thee? And the king shall answer and say unto them, verily I say unto you, in as much as ye have done of the least of these my brethren, ye have done it unto me.” This implies that whatever altruistic acts people perform to the poor or to the sick, they believe that they have done it unto God. In other words, the believe that God will reward those people who have performed altruistic acts for others is a motivating factor for the development of altruistic behavior of children. The point is that altruistic behavior can be developed through expecting reward (reinforcement) and punishment from God. Parents, teachers, Sunday school instructors and other socializing agents often preach for the development of altruistic behavior (Shaffer, 1998). As Shaffer (1998) stated, many young children help others because religious instructors and other socializing agents taught them to provide help for the needy. Al these findings indicate that being religious has positive influences on the development of altruistic behavior.

#### **2.2.4. Family Size**

Findings on family size are also inconsistent. Some investigators have found that family size and others behavior or sympathy are unrelated (Caulley and Tyler 1999) others have found that children in large families are more generous (Ugurel-Semin, 1992) but less likely to help in emergency situations (Staub, 1996) or comfort a peer (Rehberg & Ricman, 1999). In contrast, Weissbrod (1996) found that large family size was related to slower helping in emergency but higher levels of generosity. In sum, it seems that children in small families are less likely to act prosocially since they are socialized to be more self-assured than in engaging to learn in every day helping and sharing behavior as compared to children in larger families. This might be because children in larger families eat together, share resources like clothe, shoe or are more likely to lead communal life than children in smaller families.

#### **2.2.5. Birth order**

Findings concerning ordinal positions are limited. First born children, particularly girls, have been found to be more willing to give commodities to peers (Knight, 1992) and to intervene in an emergency (Staub, 1996). Moreover, older siblings, in comparison to younger siblings, more often behave prosocially in sibling interaction (Broady, 1995). However, other researchers have found no relation between birth order and various measures of prosocial responding (Gelfand et al, 1995); or sympathy (Ioban, 1953), or have found younger siblings to be more prosocial than first borns (Raviv & Bar-Tal, 1991). In general as too many authors it appears that older children are some what more prosocial, especially in regard to actual (rather than reported) prosocial behavior and in interaction with younger siblings. Older siblings are expected to feed and nurture their younger brothers and sisters. And these cultural values might encourage children to be involved in altruistic acts. This is because the altruistic oriented cultural values will be internalized by the growing child from socializing agents.

#### **2.2.6. Maternal Presence versus Absence**

Family structure might play a role in social status differences in prosocial behavior. Parental presence versus absence might have effects on children's prosocial development. Rehberg and Richman (1999) found that boys from father-absent homes comforted (but did not help) a peer more than did girls and boys from two-parent homes. Children's

comforting behavior was positively related with parental dependency on the child, and such dependency (including the need for help with chores) was particularly high for boys in mother headed homes (Steinberg, Greenberger, Garduque, Rugiero, & Vaux, 1982). However, other researchers have not found effects of father absence on measures of prosocial responding (Call et al, 1995). Further, Keith, Nelson, Schlaback, and Thompson (1990) found that 10 to 14 years old from two parent families in which one parent was not employed participated in more volunteer activities than did adolescents from single-parent families. Steinberg, Greenberger, Arduous, Rugiero, and Vaux (1998) also indicated that children from single parent families might be more likely to work, and work does not appear to foster adolescent's concern for others. Further, Musun-Miller (1991) found that Siblings were more helpful in the presence of their mothers than in mother's absence. This implies that, in a single parent family, the parent often may not be at home, and this may lessen opportunities for the socialization of certain types of sibling-or peer-related prosocial behaviors or for involvement in volunteer activities out of the home. These findings also imply that when the father or the mothers are not present in the household, children are less likely to hear and model altruistic values that they might obtain from the socializing agents of the father or mother.

### **2.2.7. Parental Inductions**

Parental inductions, a technique in which parents give explanations or reasons for requiring the child to change his or her behavior according to Hoffman (1992) is found to be linked to prosocial behavior. He argued that parental inductions in the home setting are likely to promote moral development because they induce an optimal level of arousal for learning. Concerning this issue, some researchers have obtained a positive relationship between parental use of inductive discipline and prosocial responding (Bartal, Nadler, & Blechman, 1990). Contrary to this finding, others, often studying small samples (Mullis, Smith, & Vollmers, 1993) have not found positive relationship between parental induction and prosocial responding. In sum, it seems that parental use of affectively charged explanation when their children commit a mistake might be related to the development of altruistic behavior since induction focuses on telling a child the consequences of his behavior for others, thereby capitalizing his or her capacity to empathize which in turn contributes to the development of altruistic behavior of children.

But, empirical findings on the relationship of children's prosocial behavior and parental inductions are contradictory. This might be due to the different measures of both inductions and prosocial behavior used by researchers across different studies. In addition, some of the inconsistency may stem from failure to focus on critical dimensions of parental messages. This might be for example the content of explanation given by the parents when their children commit mistake.

### **2.2.8. Environmental Factors**

Although altruistic behavior has genetic basis, research evidence indicate that environmental setting can influence altruism (Habtegiorgis, 1994). As Vander (1997) pointed out, psychologists estimated that about half of the altruism scores were due to genetic influences and another half to the environmental factors. It implies that both heredity and environment have equal contributions for the development of altruistic behavior. However, many social scientists reject the idea that altruism is strongly influenced by heredity (Wortman, 1992). It shows that social scientists believe in the influences of environmental factors rather than hereditary influences of altruism. Some researchers argued that individual differences in altruistic behavior might have genetic basis. Identical twins are closer in their levels of altruistic behavior than fraternal twins (Rushton et al, cited in Hctherington & Parke, 1993). It indicates that heredity has considerable influences on altruistic behavior.

#### **2.2.8.1. The Home Setting**

Shaffer (1998) stated that the development of altruism includes an exposure to altruistic values with in the context of a warm nurturing parent-child relationship. He also identified that once altruistic principles are internalized, the child strives to help others in need so as to avoid punishment from the conscience like guilt, shame and self degradation for failing to render such assistance. Several child rearing studies indicate that warm and nurturing parents tend to raise altruistic children (Shaffer, 1998). It means that warm relationships with socializing agents are important attributors for the development of altruistic behavior. Shaffer (1998) mentioned that although most parents encourage their children to be kind, generous, or helpful to others, they don't always practice what they preach. Staub (1992) asserted that the development of prosocial

behavior is enhanced by a sense connections to others (e.g. through attachment and benign social environment), exposure to parental warmth (which fosters a positive identity and a sense of self as well as attachment), adult guidance, and children's participation in prosocial activities. In this particular case Eisenberg, Fabes, Murphy, et al (1994) indicated that parental practices in the home setting that help children to cope with their own negative emotions in a constructive fashion foster sympathy and prosocial behavior rather than personal distress reactions. This presumably is because children who can't adequately cope with their emotions tend to become over aroused and consequently, experience a self focused, aversive response (i.e personal distress) when confronted with an others distress. It seems reasonable, therefore, to assume that home reared children have the chance to adequately cope with their emotions than those institutionalized and street children with the mere fact that they have been reared in the home with parental support and guidance. It makes sense also to assume that home reared children are more likely to have a history of receiving social reinforcement from others than those children in the day care-center and of the street. Similarly, Bar-Tal and Raviv (1992) mentioned that the development of the child's helping behavior is influenced by observation of the parents' helping behavior. It implies that parents who want their children to behave altruistically should behave in the same manner. In this, respect, Staub (1996) specified the type of environmental forces at home affecting altruistic behavior. In relation to this Reykowski (1992) pointed out that various techniques of child-rearing practices might influence the quality as well as the quantity of positive behaviors. According to Zahn-Waxler and Radke-Yarrow (1992) the disciplinary methods taken by mothers in child-caused distress situations were linked with children's altruistic acts. It implies that mothers use of affective and moralistic explanations about the negative consequences are very important for the development of altruistic behavior of children.

In the same way, according to Staub (1996, p. 150) altruistic behavior is influenced by "... a combination of (1) parental warmth and nurturance, (2) induction, pointing out to children the consequences of their behavior on other people, and (3) firm control by parents, so that children actually behave in accordance with important values and rules." It indicates that emotional attachment and logical reasoning accompanied by consistent

and strong control may contribute to the development of pro-social behavior. Parents may often directly encourage and shape helping behaviors from which children can learn new altruistic acts (Staub, 1996). It would be expected that parents who explicitly model pro-social behavior and at the same time provide opportunities for children to perform these actions might be particularly successful in promoting altruism (Hetherington and Parke, 1996). Maintaining this views it was found that authoritarian parental practices have been associated with an external moral orientation (such as hedonism or self interest), whereas inductive practices have been positively related with children's endorsement of intrinsic evaluative standards (Hoffman and Boehnke cited in Boehnke, and his colleagues, 1989).

In general terms, the logic here in the present study to investigate the home setting or the family atmosphere in terms of its contribution to the altruistic value orientation is based on the ground that the family as a social setting might impact altruistic behavior of children differently from the child care institutions and the street as another social settings. This might be reasoned in terms of expected higher probability of exposure of home reared children to parental warmth, nurturance parental induction, firm parental control through parental values and rules. And, by deduction, as indicated by many authors, these warm relationship with socializing agents and parental modeling of altruistic acts might contribute to the internalizations of altruistic (prosocial) values and acts in the home setting differently from (higher than) the other two settings due to the fact that they might be more likely to be socially accepted than excluded.

#### **2.2.8.2. The Child Care Institution**

A child-rearing institution is defined as “a group of unrelated children living together in the care of a group of unrelated adults” (Kadushin, cited in Firew, 1994, p.13). The institution provides group care services and substitutes the natural parents' childcare.

In Ethiopia, there are about 20,000 institutionalized children under 124 governmental, non-governmental and community based institutions throughout the country (UNICEF, as cited in Gobena, 1993). Sixteen of these institutions are in Addis Ababa and these institutions provide food, shelter, clothing and education for 2917 children (Addis Ababa city administration social and labor affairs Bureau, 2000). Civil war, drought, famine,

disease and accidents contribute for the establishment of numerous childcare institutions. The children under such institutions lack parental love and affection.

Besides, a major feature of a childcare institution is its isolation from the surrounding community (Tizard, 1986). According to Goffman, as cited in Tizard (1986), institutions in this condition deprive children's ability to develop an individual identity, they may become apathetic and withdrawn; they may rebel and refuse to cooperate. In relation to this, Scarr, as cited in Frew (1994), stated that "having no parental figures or being reared in terribly deprived circumstances have clear detrimental effects on a child's development, regardless of the child's genetic background." Deprived and neglectful environments don't facilitate normal development for children. According to Tizard (1996), whatever type of adaptation children make, they usually experience sever difficulties when they leave the institutions. This is because in an institution "children are unable to experience the normal range of roles that they have when living at home" (Tizard, 1996, p. 82). In a family, the child's roles include being a son or daughter, nephew or niece, grandchild, cousin, father, mother and aunt. Children also learn how they should relate to friendly and unfriendly with neighbors and other persons in the surrounding. However, institutional life fails to provide children with a wide variety of adult models to learn from (Tizard, 1996). It means that they do not know how fathers, mothers, brothers, sisters, neighbors, aunts, uncles and other members of the family interact and behave in the community.

Similarly, Keasey (1998) mentioned the very serious criticisms in the western residential children's homes. The first came from Goffman's concept of the 'total institutions.' By total institution he meant long stay institutions like orphanages, old people homes, etc., where to sleep, leisure and work occur in the same place under the control of a single central authority (Tizard, 1996). In such institutions inmates tend to be stripped of their private identity (Goffman, cited in Tizard, 1996). In such institution, individuals are treated alike, whatever their individual needs and differences, all are required to do the same thing at the same time (Tizard, 1996). Furthermore, many studies found that institutionalized children are restless, and have difficulty in concentrating. They fought

with other children, and craved affection and attention from adults (Tizard, 1996). As they grew older, these children showed themselves incapable of forming deep loving relationships and inability to feel real concern for others (Tizard, 1996).

In general terms, the argument here is that since the child care institution is isolated from the surrounding society, the institutionalized children have no parental figures and were reared in deprived conditions and therefore lack parental love and affection, and hence, when grew older they might be incapable of forming deep loving relationships thereby experiencing inability to feel real concern for others or altruistic motivation. The reason is that the child care institution as a social setting is depriving and neglectful environment which socially excludes the growing child since children in this social setting lack the opportunity to learn a wide variety of roles and skills that children from the home setting learn simply through the experience of living with in a family. The main point is that the institutional life fails to provide children with a wide variety of adult models from which they imitate altruistic, acts and from which they internalize altruistic values of the society in addition to lack of parental love and affection. Hence, the whole educated guess is that, since the child care institution is socially excluding and neglectful social setting, it might contribute to development of reduced altruistic behavior to institutionalized children when compared with that of the home reared children.

### **2.2.8.3. The Street Area**

It is estimated that over 150 million children in the world are exposed to the street (Forum on street children, Ethiopia, 2010, p.21).The report explains majority of street children in the world today are boys between the ages 5-15 years. According to the Ministry of Labor and Social Affairs, there are between 150-200,000 street children nationally, with a further one million vulnerable or at risk of streets (MOLSA, 2010). UNICEF and actively engaged NGOs estimate that there are between 500-700,000 children on the street nationally, and that figure is rising as a result of drought, displacement and, increasingly, HIV/AIDS. The number of street children in Ethiopia is estimated by the government to number 50,000 to 60,000. UNICEF estimates that the number is three times as high. Approximately 150,000 are working and living in the streets with no care and support. Some 45,000 children earn their living in the streets and

go home to their families, relatives or friends after 12 to 14 hours on the street daily. Even more, however, remain on the street alone at night risking rape and violence in absence of secure shelter. In Ethiopia about 4,042,357 children are estimated to live under especially difficult circumstances (CYFO, 1980). It was estimated that 100,000 children are leading street life and 500,000 children are at an extremely high risk of becoming involved in street life (Tacon, 1991). Divorce, separation of parents, death of one or both parents, migration from rural places and economic factors are the main causes which pooled children to the street (NCC, 1998; Tsegaye, 1988; RAD, 1994). In all one focus area of the present study, children of the street-live, eat and sleep in the street, such children are not only economically engaged in street life, but are also socially centered on the street. They are often sources of embarrassment to governments seeking to portray a modern image, their very presence acting as a reminder of disintegrating social conditions. It seems therefore important to study their altruistic moral behavior in order to see whether this stressful or toxic residential setting has affected their altruistic behavior. In relation to this point, Owens and Ascione (1991) indicated that exposure to high levels of anger and conflict may induce attempts by street children to minimize self related negative emotional or physical consequences of conflict but does not foster the capacity for sympathy or other oriented (rather than self oriented) prosocial behavior. It implies that the street children are more likely to be exposed to conflict and implying that this might have resulted in low level of altruistic responding to the needy person. Physical abuse of children has been linked to low level of children's empathy and prosocial behavior (George & Main, 1979; Howes & Eldredge, 1985; Main & George, 1985; Straker & Jacobson, 1981) as well as in appropriate behavior (e.g. aggression) toward distressed peers (Hower & Eldredge, 1985). In relation to this point, it is true that street children in Ethiopia, particularly in Addis Ababa were (are) punished, bitten and tortured by the police or by other responsible bodies holding government positions. Hence, it would be important to investigate their altruistic orientations in relation to those children at home and in the child care institution. In support of this argument other authors have indicated that socializers' use of power assertive techniques of discipline such as physical punishment or deprivation of privileges as either unrelated (Feshbach, 1978; Zahn-Waxler et al, 1979) or negatively related (Bar-Tal, Nadler, & Blackman, 1980) to altruistic

behaviors. It has also been indicated by Hoffman (1970a) that power assertion has been associated with external moral orientations such as hedonism, self orientation and conformity which are less advanced altruistic behaviors. Advocating the same notion Dix and Gruesec (1983) suggested that children often attribute prosocial behavior induced by power assertive technique to external motives such as fear of detection or punishment.

It is obvious that there are a number of children who are vulnerable and live especially under difficult circumstances worldwide. In Ethiopia also, even though, the data is either fragmented or unavailable it is recognized that different types of children are prevalent (Tedlla, 1996; & Tedlla, 1999). These same documents reveal that, there are unaccompanied children, orphaned children, traumatized children, abused and neglected children in Ethiopia. Ritchie (1999) also pointed out that street children are categorized as children in Especially Difficult Circumstances (CEDC). In addition, United Nation's International Children's Emergency Fund (UNICEF) (1991) cited in Habtamu (1996), estimates that one in every five children in developing countries live under especially difficult circumstances. In Ethiopia, one of the least developed countries in the world, there is an estimation of 20-25% of CEDC (Fiseha, 1993). The country is also becoming home for a number of street children who share the problem of CEDC (Forum on Street Children Ethiopia (FSCE), 2003). Therefore, since the country is becoming home for a number of street children who share the problem of children in Especially difficult circumstances, which is socially excluding it is justifiable (reasonable) to study their altruistic behavior by comparing them with home reared and institutionalized children who lived in a less socially excluding or nearly socially accepting environmental setting in an effort to know which residential setting contributes to the development of altruistic behavior. Supporting this argument (MoE (2005) states exclusion of street children from education in Ethiopia increases disadvantages and contributes to broader exclusion in society. it implies that, as their possibility to interact with other children in the school decreases, the chance that they will be exposed to societal expectations and roles decreases, which in turn affects their altruistic behavior. According to UNICEF (2003) despite the fact that all children need knowledge and skills in order to have self esteem, most street children receive little attention or no formal education. Due to this fact, in the

view street children as almost sub-human” (Human Rights Watch, 2004, p.1). Moreover, recognized as “antisocial”, street children are viewed with doubt and fear by many people (Human Rights Watch, 2004). It affirms also that globally street children are subjected to physical abuse by police, or have been murdered, as government treat them as enemies to be eliminated rather than as children to be taken care of and protected. It further states that they are arbitrarily arrested by police, simply because they are home less, or criminally charged with vague offences such as, vagrancy, or petty theft; they are tortured or bitten by police and often stay in prisons for unlimited period in poor conditions.

In summary, all these findings indicates the harsh environmental condition that street children are exposed might leave a scar on the psychological development of the child, of which one psychological variable is altruistic behavior which is inferred from prosocial moral reasoning. In return, the altruistic behavior of street children which can be inferred from prosocial moral reasoning might be affected negatively by these socially excluding, harsh and stressful environmental setting, when it is seen in comparison with children in the home and the child care institution. More specifically we can conclude from the above findings that street children are abandoned, considered as criminals, lack family contact and guidance, perceived to live with immoral parental figures, and perceived as disloyal to their country and considered as social threat. In addition as indicated by many authors, the street culture is perceived as a culture of petty crime. This all implies that the street children are living in a more socially excluding (rejecting) social setting (environment) in that they lack parental love and affection which is assumed to contribute to reduced altruistic behavior or lack of concern for others. The whole idea in the present study is to see which residential setting contributes to altruistic behavior in addition to other background variables of sex, age, religion, birth order, family size, parental presence(absence) and parental induction. On the ground of this idea, lays the basic premise that social settings (residents) in which children lived and grown up differ in terms of social acceptance /rejection that they provide to the growing child. By circular reasoning, the differential social acceptance inherent in these social setting (the home, child care institution and the street) are likely to contribute to different quality of altruistic behavior to children.

### 2.3. The Motives of Altruistic Behavior

To measure the development of altruistic motives, Silbereisen et al, Boehnke, Eisenberg, Reykowski, and Palmonari, cited in Habtegiorgis (1994) identified six standards, which are operative in altruistic behavior. These six standards are hedonism, conformity, self-interest, other-oriented, task-oriented and empathy. The definitions of these motives are given below:

**1. Hedonistic oriented altruistic motives:** Silbereisen et al and Boehnke et al, as cited in Habtegiorgis (1994), specified that it 'tries to accomplish helping behavior controlled by situational opportunities conducive to bodily sensations, that is, the experience of pleasure or the avoidance of pain'. The individual is concerned with selfish, pragmatic consequences rather than moral considerations. The person uses his or her helping as instrumental in satisfying the actors' own needs or wants. Reasons for assisting or not assisting another include considerations of direct gain to the self, future reciprocity, and concern for others whom the individual needs and/or likes. It is orientation to selfish gain for oneself (besides gain resulting from direct reciprocity) (Cauley & Tyler, 1998). Orientation to personal gain due to direct reciprocity. This implies that Individuals identifies with another and the other's relation to his or her own needs are important considerations for future reciprocity, and concern for others whom the individual needs and/or likes.

**2. Conformity oriented altruistic motives:** Orientation to other's approval and acceptance in deciding what is the correct behavior. Stereotyped images of good and bad persons and behaviors and or considerations of other's approval and acceptance are used in justifying prosocial or non-helping behaviors (Eisenberg & Roth, 1998). It develops as result of the demands of external authority or the peer group (Boehnke et al & Silbereisen, cited in Habtegiorgis 1994). It implies that the motive is the product of external force rather than the internal needs of the individual.

**3. Task-oriented altruistic motives:** Feeling good as a result of a particular course of action without giving a reason, feeling good because of the consequences of his(her) act for the other person (Eisenberg-Berg & Roth, 1990). This motive works when the condition a needy person thinks or tries to solve the problem by involving in action

In addition to this, socio-metric questionnaires were used to obtain the altruistic behaviors of children (Boehnke et al, 1989). But this method has also its own limitations which has some danger of prejudice or a "halo effect" in children's responses to questionnaires in some situations (Boehnke et al 1989).

On the other hand, Silbereisen et al (1986) designed a measure of self-attribution of altruistic motives in hypothetical situations. This hypothetically developed questionnaire is called pro—social motivation questionnaire (PSMQ). Within this attempt, altruistic behavior is considered as goal-directed behavior (Silbereisen, et al, 1986). Its performance is guided by the influence of the value of the goal at stake and the expectation whether the goal can be achieved under the given circumstances (Silbereisen et al, 1986). Similarly, in the present study subjects were administered the PSMQ and their altruistic behavior is inferred from their scores on the six altruistic orientations. Hence, altruistic behavior, here in the present study is considered as goal directed behavior.

## **2.5. Research Approaches in studying Altruistic Behavior employing Hypothetical Moral Dilemmas:**

Researchers whose goals have included delineating the development of judgments about prosocial behavior and comparing such reasoning to Kohlberg's prohibition-oriented reasoning have tended to use hypothetical moral dilemmas (e.g. Eisenberg-Bar, 1999b; Eisenberg-Berg & Hand, 1999, Higgs, 1995; Levin & Bekerman-Greenberg, 1990; Mussen & Eisenberg-Bar, 1997; O'connor, Cvevas, & Dollinger, 1999). Much of this research has been done using dilemmas devised by Eisenberg-Berg (Eisenberg, 1992, p. 56).

Eisenberg-Berg (1997) explicitly differentiated between what she called prohibition oriented moral reasoning and prosocial moral reasoning .She pointed out that Kohlberg's moral dilemmas deal with only one domain of moral judgment-the prohibition-oriented domain. In support of this view Katz(2001) indicated that "whereas Kohlberg's dilemmas may include potential instances of prosocial action, potential prosocial behavior is nearly always cast in prohibition-oriented context in which a prosocial act necessarily

constitutes dictates". In relation to this point Gruesec(1992) indicated that reasoning about conflicts in which the individual must choose between satisfying his or her wants or needs and those of others in a context in which the role of laws, punishment, authorities, formal obligations, and other external prohibitions is irrelevant or de-emphasized.

In a series of studies, Eisenberg-Berg and her students have examined preschoolers and school-aged children's prosocial moral reasoning (Eisenberg-Bar, 1999a, 199b; Eisenberg-Bar & Roth, 1990; Mussen & Eisenberg-Berg, 1997). The typical procedure has involved individual interviews during which the child is read three or four prosocial moral dilemmas. In each story dilemma, the needs or wants of one individual or group conflict with those of another in a context in which the roles of laws, rules, authorities, punishment, and formal obligations are irrelevant or minimal (Eisenberg, 1992, p.231). An Example of prosocial moral story dilemma used with younger children is as follows:

*One day a girl named Mary was going to a friend's birthday party. On her way she saw a girl who had fallen down and hurt her leg. The girl asked Mary to go to her house and get her parents so the parents could come and take her to the doctor. But if Mary did run and get the child's parents, she would be late for the birthday party and miss the ice-cream, cake, and all the games. What should Mary do? Why?*

Then the types of reasoning the children used to justify helping or sharing were subjected to co relational analysis, multivariate, and factorial analysis (p.232). Next, types of reasoning that were Intero related and (factored together) were grouped into "orientation."

# CHAPTER THREE

## 3. THE RESEARCH METHOD

### Overview

This chapter is organized in nine sub sections. The first subsection presents the research design. The second subsection deals with the population. The third and the fourth subsections are devoted to presentations of eligibility criteria and sample size determination respectively. The fifth, the six and the seventh subsections explore participants, instruments and pilot test. Finally, the eighth and the ninth subsections describe procedures of data collection and methods of data analysis. In the entire present chapter is devoted to presentations of the research strategies to obtain knowledge about altruistic behavior. More specifically, this section presents on how the student researcher constructed and conducted the research design and the method to gain knowledge about altruistic behavior of children. In the present study, the researcher has made use of the quantitative descriptive research method that helps to describe the relationship between non-manipulative research variables that involves the formulation of hypothesis, careful sampling procedure, data gathering, data analysis, interpretation and the development of generalizations. In relation to this, Sarantakos(2005) indicated that this positivist paradigm contains a realistic ( objectivistic ontology and an empiricist epistemology) guides the strategies of quantitative methodology, and therefore prescribes fixed design and quantitative methods. Therefore, in the present study altruistic behaviors of children is assumed to be objective (out there) and the research focuses on altruistic behavior that is out there. And altruistic behavior of children is known to the researcher through sense experience by means of the PSMQ. In sum, this section presents research design, the population, eligibility criteria, sample size determination, participants, instrument, pilot test, procedures of data collection, and data analysis.

### 3.1. The Research Design

The primary hypothesis of the present study was to investigate the altruistic behaviors of home reared, institutionalized and street children. The secondary hypothesis was to investigate altruistic behaviors of home reared, institutionalized, and street children in

1996). Obviously, as indicated under the sections on statement of the problem, the basic research questions in the present study are non directional. Hence, a two tailed-test was used in determining the sample size. Since the study involves two sexes, and is non-directional, the size of each sex was be:

$$N_h = \frac{(|Z_\beta| + |Z_{\alpha/2}|)^2}{(\Delta)^2}, \text{ where}$$

$Z_\beta$  = Standard score in the sampling distribution associated with  $H_a$ , corresponding to  $Z_{\alpha/2}$  for a given power

$Z_{\alpha/2}$  = Critical value of the test statistic in the sampling distribution associated with  $H_0$  for a two-tailed test at a given  $\alpha$  level

$\Delta^2/\delta^2$  = Population error variance

$$N_h = \frac{(|-1.28| + |1.96|)^2}{(0.35)^2} = \frac{(3.24)^2}{(0.35)^2} \simeq 86.694 \simeq 87$$

Since the study involves two sexes, the total number of subjects required was  $N_t = 87 \times 2 = 174$ . And since the study also involves three groups with a proportionate cell frequencies, the researcher sampled  $174 \div 3 = 58$  from each group of home reared, institutionalized and street children. It implies that the sample size necessary for the two-tailed test of the null hypotheses at  $\alpha=0.05$  with a power to detect a 0.35 difference is 174.

### 3.5 Participants:

First on eight pieces of cards G1, G2, G3, G4, G5, G6, G7 and G8 were prepared to represent students in grade 1,2,3,4,5,6,7 and 8 in Tsehaye Chora Primary School respectively. Then, through lottery method, my friend picked up G6 blindfolded. Next, from school records a total list of 342 with equal number of male and female subjects with in the three age categories were taken from grade six students. After that, all the 342 (180M, 162F) six graders were stratified by sex. Finally, a sample for home reared children was drawn independently and at random from each strata according to the principles of proportional allocation. The strata's and the proportion of subjects taken from each stratum's were indicated below. Thus, male (29) and female (29) home reared

children were obtained by stratifying six graders in Tsehaye Chora Primary School by sex and age. Second, female institutionalized subjects were drawn from Kechene Children's Home. This is because, in this foster care center, even if there were male institutionalized children their age was less than seven. Thus, first biodata of a total of 165 female institutionalized children were taken from records obtained from administrative officials of Kechene Children's Home. Then, these children were stratified by age after which female institutionalized subjects were selected according to the principles of proportional allocation as indicated in the table below. Thirdly, male institutionalized subjects were drawn from Kolfe Kenema Children's Home. This is because, in this child care institution, there were male institutionalized children aged above seven. Thus, first a total list of 180 male institutionalized children were taken from records obtained from, administrative officials of Kolfe Kenema Children's Home. Then, children's were stratified by age and male institutionalized children were selected as indicated below according to the principles of proportional allocation. Fourthly, street children for the present study were selected as follows. First, from seven main street areas in Addis Ababa (Merkato, Giorgis, Piassa, Megenagna square, Mexico, National Theatre, and Stadium), three street areas (Giorgis, Piassa and Mexico) were selected through simple random sampling, more specifically sampling without replacement using lottery method. Then, using peer nomination in each of the three street areas, the nominated peers by the student researcher brought a total list of 162 (90M, 72F) street children from street areas of Giorgis, Piassa and Mexico whose age ranged from seven to eighteen and who had stayed a minimum of six years in their respective street areas. Finally, subjects for the study were selected through the stratification of age and sex as indicated below.

**Table 2. Reliabilities for the six altruistic orientations:**

		<b>Cronbach alpha</b>	<b>Chronbach's alpha based on standardized item</b>	<b>No of items</b>
1.	Hedonistic	0.943	0.943	11
2.	Task	0.840	0.840	11
3.	Empathy	0.921	0.922	11
4.	Self	0.935	0.935	11
5.	Conformity	0.717	0.719	11
6.	Other	0.827	0.828	11

As can be seen in the above table the consistency of the instrument was found to be between 0.943 and 0.683. This is similar to that of Boehke et.al (1989) who find it to be between 0.59 to 0.88. Thirdly, standard deviations of each item was computed. Then, it was decided that items having standard deviation below 1.3 or above 1.7 to be discarded or improved. Based on this decision the following none of the items were discarded (See the appendix C on items statistic). Then, based on the qualitative feedback obtained from peer review and comments from the advisor the following problems were corrected

**Table3. Qualitative feedbacks and their corrections:**

No of item such a problem	Types of the problem observed	E.g. of an item with such problem	Measures taken	E.g. of an item which is modified
No 3	Lack of clarity	Other people could get hurt if a fire started	Modified	If a fire started other people could get hurt population
No 4	Incompatible with age	Valley ball	Modified	valley ball to foot ball
No 7	Time taking question	If I would not have helped I would never have been able to ask the bread to eat that why friend have bought	Modified	if I would not have helped I would never have been able to ask the bread to eat my friend want to be buy
Cover page	Cover later do not show importance of the subjects and the study		Modified	Importance of the study and the subjects were indicated

lead us to see similarities and differences among different cultural groups (Berry et al, 2002). It implies that even if there are some variations, the basic psychological principles are the same for all human beings irrespective of culture, sex, age, race and ethnicity. By implication, it also meant that, it is only when this holds true that we can compare different cultural groups. More specifically, it also meant that, the basic principles of altruistic behavior are the same for all human beings whether for Americans or Ethiopians even if there are some variations. However, to minimize this variations, in the present study, the instrument (PSMQ) was pilot tested prior to its administration to the subjects to see its validity and reliability using Cronbach alpha coefficient on twelve subjects as indicated in the section on the “test tryout”, even though Boehke et’al (1989) calculated the consistency of the instrument (PSMQ) to be between 0.59 to 0.88 and alpha coefficient ranging between 0.66 and 0.77. After pilot testing the translated questionnaire, questions or items which are ambiguous for the subjects were decided to be discarded or improved.

In sum, the instrument consists of background variables: residential setting sex, and age (7-18), and religion for all subjects of the study. In addition, the measure (instrument) also consisted of separate background questions that are only separately administered for each group:

- ❖ For home reared children: birth order, family size, and maternal presence or absence which are assumed to affect altruistic behavior of only home reared children are indicated on the instrument.
- ❖ For institutionalized children: actions taken by their care takers when they commit mistake is indicated since it affects their altruistic behavior.
- ❖ For street children: actions taken by the police when they commit mistake and their perception about the attitude of the society about street children is indicated in the instrument.

### **3.8 Variables and Scoring:**

In the present study the student researcher is mainly interested in determining whether the three residential settings are equally effective to the altruistic behavior of children. The variable that forms the grouping, the residential setting is the independent variable which

is assumed to influence the dependent measure (scores of subjects on the altruistic subscale which is taken as equivalents to their behavior). Therefore, in the present study, there is only one main independent variable, residential setting, with three levels of this variable, namely home, childcare center, and street. The altruistic behavior which is inferred from the scores of subjects from the six altruistic orientation subscales of the PSMQ represent the dependent variable.

Therefore, the basic research questions in the present study are formulated about the means of the residential settings on the six altruistic orientations or behaviors. The other independent variable included in the study includes age, family size, sex, birth order, and maternal presence or absence. Birth order, family size and maternal presence or absence are seen as independent variable for only home-reared children.

### **3.8.1 Independent variables:**

The independent variables considered in the present study include residential (environmental) settings and bio-data of subjects on age, family size, maternal presence and sex. The investigator was interested in the age range of 7-18. For factorial analysis purposes, these age levels were coded 1, 2 and 3 for 7-10, 11-14 and 15-18 respectively. Sex represented male and female subjects, and the codes were "1" for female, and "2" for males. In all, the independent variables included in the present study were as follows:

- ❖ Residential settings (categorical): the home, the street, and the institution.
- ❖ Sex(categorical): Male and female
- ❖ Age(categorical): 7-10,11-14,and 15-18
- ❖ Religion(categorical) :
- ❖ Birth order (categorical): First born, last born, and neither.
- ❖ Family size (categorical): Small (1-4), medium (5-7), and large (>7) family size.
- ❖ Maternal presence (categorical): Alive, don't alive, and separated (not there for job or other purpose).

### **3.8.2 Dependent variables:**

The dependent variables in the present study were altruistic behaviors which is the scores of subjects (children) on the six altruistic orientation subscales measured by using PSMQ. Subjects were asked to rate each motive on a five point Likert scale ranging from 0 to 4. Then, the rating of subjects of the study on all the 11 scenarios were added for each of the

six motives or scales and therefore scores were recorded for each of the six subscales: But, the values of the subscale could not be added together to get extrinsic and a intrinsic score of a subject since all the six subscales do not have equal strengths to predict the intrinsic or extrinsic motives. That means since there is no a single construct underlying the PSMQ, the scores of subjects on the six subscales can't be added to give a total altruistic behavior and hence one dependent variable. Therefore, in the present study the researcher would have six dependent variables which would be investigated in terms of the above seven independent variables.

### **3.9 Procedures:**

Before administering the data collection tool, some important rappings were established with the selected sample members. Participants were given necessary clarification to respond to the questionnaire. They were encouraged to ask questions if any thing is unclear during administration of the instrument. They were also assured that the response they provide will be confidential and any information they provided would not be known since they do not write their name on the questionnaire.

Then, data was collected in January-March 2010, using PSMQ self report inventory. During the administration of the inventory, the main objectives of the study were explained to the subjects. Oral instructions and necessary helps were given to the subjects of the study in order to bring about genuineness in their responses. The average time spent to complete the inventory by the subjects was one hour. Generally, the scoring procedures taken during the main study were the same as those used in the tryout.

First, subjects were interviewed on the background variables. Then, they were requested to precede to the prosocial motivation questionnaire (PSMQ) scale. Finally, subjects were interviewed by the assistant researchers one by one by reading the items and recording their responses.

### **3.10 Data Analysis**

A factorial ANOVA was employed to investigate the altruistic behaviors of home reared, institutionalized and street children as this statistical technique can be used to evaluate whether there are differences between average values, or means, or across several population groups. With in this model, the response variable is continuous ,where

as the predictor variables are categorical. Therefore, in the present study since the response variables which includes hedonistic oriented altruism, self oriented altruism, conformity oriented altruism, task oriented altruism, other oriented altruism and empathetic oriented altruism are continuous, and the predictor variables which includes residential setting, birth orders, sex, family size, age, and maternal presence are categorical variables, factorial ANOVA was employed to achieve the objectives of the intended investigation. Again, to run a test of analysis of variance three assumptions must be met: normality of the distribution, homogeneity of variance, and independence of treatments. To test the normality of the distribution, a chi square, Goodness of fit test was run.

A chi square obtained was presented below:

**Table4.chi square values for the PSMQ:**

	Hedonism	Task	Self	Conformity	Empathy	Other
X <sup>2</sup>	276.621	74.276	304.943	103.793	39.483	61.184
df	43	35	43	37	40	36
Asymp.sign	0.06	0.057	0.88	0.68	0.65	0.10

As indicated above since  $P > 0.05$  for all the six subscales, it implies that the distribution of the dependent variable don't depart from normality. Secondly, tests of homogeneity of variance employing Levene's test was run automatically on SPSS version 12- for the 6 subscales as indicated below and neither were found to have significant result. This implies that the variance of the six altruistic orientations is equal across the respective independent variables:

**Table 5.Test of homogeneity variance of the six sub scales across sex of the subjects:**

Dependent var.	Levene	d1	d2	Sig
hedonistic	1.599	1	172	0.208
Task	2.139	1	172	0.145
Self	2.222	1	172	0.138
Conformity	0.186	1	172	0.667
Empathy	1.973	1	172	0.162
Other	0.294	1	172	0.589

Since Levene's  $p > 0.05$  for the six sub scales of altruistic orientations, there is equality of variance. This implies that the error variance of the six altruistic orientation is equal

across sex. This is important in terms of the reliability of the results and in supporting the robustness of the inferential statistics.

**Table 6. Test of homogeneity variance of the six sub scales across birth order of subject:**

Dependent var.	Levene	D1	d2	Sig
hedonistic	2.495	5	52	0.042
Task	2.276	5	52	0.060
Self	1.144	5	52	0.349
Conformity	3.789	5	52	0.005
Empathy	3.108	5	52	0.016
Other	4.803	5	52	0.001

Since Levene's  $P > 0.05$  for the six altruistic orientations, there is equality of variances of the six altruistic orientations across birth order of subjects. This implies that the error variance of the six altruistic orientation is equal across birth order of subjects.

**Table 7- Test of homogeneity variance of the six sub scales across age of the subjects**

Dependent var.	Levene	d1	d2	Sig
hedonistic	1.816	2	171	0.166
Task	0.482	2	171	0.1618
Self	0.502	2	171	0.606
Conformity	2.957	2	171	0.055
Empathy	0.265	2	171	0.768
Other	0.496	2	171	0.610

Since Levene's  $P > 0.05$  for the six altruistic orientation across age of subjects, there is equality of variances of these orientations across age of subjects. It implies that the error variance of the six altruistic orientation is equal across age of subjects.

**Table 8. Test of homogeneity variance of the six sub scales across maternal presence or absence of subjects:**

Dependent var.	Levene	D1	d2	Sig
hedonistic	0.389	1	56	0.536
Task	0.796	1	56	0.376
Self	0.674	1	56	0.415
Conformity	0.109	1	56	0.743
Empathy	0.019	1	56	0.890
Other	0.040	1	56	0.843

Since Levene's  $P > 0.05$  for the six altruistic orientations across maternal presence or absence among home reared children, there is equality of variances of these orientations across this independent variable in the population. It implies that the error variance of the six altruistic orientations is equal across maternal presence or absence of subjects.

After meeting these two very important assumptions, then, data were organized using SPSS-12- computer programs. Preliminary descriptive statistical values such as mean, standard deviation, and maximum-minimum scores were computed to describe the data on altruistic behavior and these were indicated in the appendices since they might distract the main body. Next, as indicated under the basic questions, the objective of the present study was to investigate; thereby comparing the altruistic behavior of Home-reared, institutionalized and street children as a function of age ,maternal presences, sex, birth order and family size. Gupta (1988) indicates that analysis of variance (ANOVA) helps to assess the performance of various people in common activities. Hence, this technique was preferred for comparing the mean differences (ratio) between the three groups of the study. That is, since there is one independent variable (residential setting) with three levels of that variable (home, institution and street), a one way between subjects ANOVA was used to compare the mean of altruistic behavior among the three groups.

In general terms, as it is indicated above, first, employing Levene's test of homogeneity of variance (Koul, 1988), the assumption of homogeneity of variance was found to be tenable and the computation of analysis of variance was justified. And, test of significance used for the present study was established at alpha 0.05. After that a one way analysis of variance (ANOVA) was employed to compare the means of altruistic behavior of the children of the three residential setting of home, institution and street in order to determine whether or not there is a statistically significant difference in altruistic behavior of home-reared, institutionalized and street children of the study. ANOVA was used in the present study, because it is robust with violations of assumptions, except in the case of unequal variances with unequal sample sizes. Then, a 2x3x3 factorial analysis of variance was performed to determine whether there existed a statistically significant difference in terms of sex, and age, and residential setting among the children on the

mean scores of altruistic behavior to see the independent and interactive effects of any combination of the independent variables in explaining the dependent variable of the study, namely the altruistic behavior from the self report of subjects to the story situations. That is, a 2x3x3 factorial analysis of variance was carried out to test the effects of sex, residential setting and age on the six altruistic orientations among all subjects of the study. Finally, a 3x3x3 factorial analysis of variance was employed to test the effect of birth order, family size and maternal presence or absence on the altruistic behavior of home reared children. That is, a 3x3x3 factorial analysis of variance was performed to test the effects of birth order, family size, and maternal presence on the six altruistic orientations among home-reared children. For all of the above inferential statistical analysis, after significant F- ratio is obtained, the student researcher carried out unplanned or a posteriori multiple comparison (Tukey method) to determine which pairs of means differ significantly. After a significant interaction effects was observed between the independent variables on any dependent variable, interaction plots were used to determine which main effect is the same or different across the other main effect on that specific dependent variable.

# CHAPTER FOUR

## 4. FINDINGS

### Overview

This chapter is organized in four subsections. The first subsection presents demographic characteristics of subjects by residential setting, birth order, sex, age, maternal presence, religion and family size. The second subsection explores differences in altruistic behaviors among children of the three residential settings. The third subsection is devoted to presentations of differences in altruistic behaviors among children in terms of sex, residential setting and age. Finally, the fourth subsection presents the data on differences in altruistic behaviors among only home reared children with different birth order, family size and maternal presence.

**Table 9. demographic characteristics of subjects**

Variable	Category	Frequency	Percent	Valid percent
RS	HC	58	33.3	33.3
	IC	58	33.3	33.3
	SC	58	33.3	33.3
	Total	174	100.0	100.0
Sex	Male	87	50.0	50.0
	Female	87	50.0	50.0
	Total	174	100.0	100.0
Age	7-10	58	33.3	33.3
	11-14	58	33.3	33.3
	15-18	58	33.3	33.3
	Total	174	100.0	100.0
Religion	Orthodox	170	97.7	97.7
	Muslim	3	1.7	1.7
	Protestant	1	0.6	0.6
	Total	174	100.0	100.0
Birth order	First	23	13.2	13.2
	Last	19	10.9	10.9
	Other	16	9.2	9.2
	Total	58	33.3	33.3
	MS	116	66.7	66.7
	Total	174	100.0	100.0
Maternal presence	Alive	37	21.3	63.8
	Don't alive	9	5.2	15.5
	Separated	12	6.9	20.7
	Total	58	33.3	100.0
	MS	116	66.7	
	Total	174	100.0	
Family size	Small	17	9.8	29.3
	Medium	27	15.5	46.6
	Large	14	8.0	24.1
	Total	58	33.3	100.0
	MS	116	66.7	
	Total	174	100.0	

Key:HC=home reared children,IC=institutionalized children,SC=street children

As can be seen from the above table, regarding to sex distribution 50% of the subjects were males where as an other half of them were females. This figure was consistent with the data on residential status of subjects where 29 male and 29 female subjects were proportionately drawn from each of the three residential settings. Hence, it is possible to say gender representation in the study was more or less proportional to assignment of subjects to the three residential settings and the data provided by the sample reflect the responses and thus the behaviors of both male and female children. Concerning the variable religion since 97.7% of the study was Orthodox it is not important to consider this independent variable in the factorial analysis of variance that was presented in section 4.2.

#### 4.1. Differences in altruistic behavior among children of the three residential settings:

Table 10. Descriptive statistic on the six altruistic orientations by the three residential settings:

dependent	Residential setting		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Between-Component Variance
							Lower Bound	Upper Bound	
Hedonistic	SC		58	3.6097	.57798	.07589	3.4577	3.7617	
	IC		58	3.0862	.78654	.10328	2.8794	3.2930	
	HC		58	1.3652	1.07827	.14158	1.0817	1.6487	
	Total		174	2.6870	1.27342	.09654	2.4965	2.8776	
	Model	Fixed Effects			.83972	.06366	2.5614	2.8127	
		Random Effects				.67798	-2.301	5.6041	1.36680
Task	SC		58	1.8871	.67179	.08821	1.7105	2.0638	
	IC		58	2.1207	.44386	.05828	2.0040	2.2374	
	HC		58	2.6254	.77553	.10183	2.4215	2.8293	
	Total		174	2.2111	.71221	.05399	2.1045	2.3176	
	Model	Fixed Effects			.64543	.04893	2.1145	2.3077	
		Random Effects				.21785	1.2737	3.1484	.13520
Self	SC		58	3.5439	.53836	.07069	3.4023	3.6854	
	IC		58	3.0846	.81023	.10639	2.8716	3.2977	
	HC		58	1.5596	1.10737	.14541	1.2684	1.8507	
	Total		174	2.7294	1.19973	.09095	2.5498	2.9089	
	Model	Fixed Effects			.85100	.06451	2.6020	2.8567	
		Random Effects				.59974	.1489	5.3098	1.06657
Conformity	SC		58	1.8840	.53140	.06978	1.7443	2.0237	
	IC		58	2.0674	.49194	.06460	1.9380	2.1967	
	HC		58	2.6458	.76813	.10086	2.4438	2.8477	
	Total		174	2.1991	.68787	.05215	2.0961	2.3020	
	Model	Fixed Effects			.60948	.04620	2.1079	2.2903	
		Random Effects				.22954	1.2114	3.1867	.15166
Empathy	SC		58	1.0423	.81494	.10701	.8280	1.2566	
	IC		58	1.9906	.60893	.07996	1.8305	2.1507	
	HC		58	3.0909	.88942	.11679	2.8570	3.3248	
	Total		174	2.0413	1.14298	.08665	1.8702	2.2123	
	Model	Fixed Effects			.78017	.05914	1.9245	2.1580	
		Random Effects				.59192	-.5055	4.5881	1.04061
Other	SC		58	1.7335	.54329	.07134	1.5907	1.8764	
	IC		58	2.0266	.48971	.06430	1.8979	2.1554	
	HC		58	2.9420	.86758	.11392	2.7139	3.1701	
	Total		174	2.2341	.83109	.06300	2.1097	2.3584	
	Model	Fixed Effects			.65515	.04967	2.1360	2.3321	
		Random Effects				.36394	.6681	3.8000	.38996

Key: HC=home reared children, IC=institutionalized children, SC=street children

As can be seen from the mean, street children had greater mean on hedonistic orientation (3.61) and self orientation (3.54) than the other two groups. Contrary to this, home reared children tended to have lower means on those measures of altruistic orientation- with a mean of 1.4 and 1.6 on hedonistic and self altruistic orientations, respectively. Paradoxically, home-reared children tended to have higher means on task orientations (2.63), conformity (2.65), empathy (3.1), and others orientation (2.94). Like wise, institutionalized children also tended to have higher means than street children (but lower than home reared children) on task orientation (2.12), conformity (2.06), empathy (1.9906), and others orientation (2.02). This all can be seen in terms of standard deviations too.

**Table 11. One-way between subjects analysis of variance of residential settings on the six altruistic orientations:**

Dependent variables	Source	Sum of Squares	df	Mean Square	F	Sig.
hedonistic	Between Groups	159.959	2	79.980	113.425	.000
	Within Groups	120.577	171	.705		
	Total	280.537	173			
Task	Between Groups	16.516	2	8.258	19.823	.000
	Within Groups	71.236	171	.417		
	Total	87.752	173			
Self	Between Groups	125.170	2	62.585	86.420	.000
	Within Groups	123.837	171	.724		
	Total	249.008	173			
conformity	Between Groups	18.336	2	9.168	24.680	.000
	Within Groups	63.521	171	.371		
	Total	81.857	173			
empathy	Between Groups	121.928	2	60.964	100.161	.000
	Within Groups	104.081	171	.609		
	Total	226.009	173			
other	Between Groups	46.094	2	23.047	53.694	.000
	Within Groups	73.398	171	.429		
	Total	119.492	173			

As indicated in the above table, there is a statistically significant difference in the mean of altruistic orientations among children of the three residential settings of the home, the day care center and the street on the six altruistic orientations. The first row from this table shows that there is a statistically significant difference in hedonistic orientation among children of the three residential settings ( $F(2,171) = 113.425, P < .0005$ ). The

second row shows that the mean on task orientation for the three residential settings significantly differ ( $F(2,171) = 19.823, P < .0005$ ). The third row shows that there is a statistically significant difference in self-orientation among children of the three residential settings ( $F(2,171) = 86.420, P < .0005$ ). The fourth row indicates that there is a statistically significant difference in conformity orientation among children of the three residential settings ( $F(2,171) = 24.680, P < .0005$ ). The fifth row illustrates that the mean of empathetic orientation for the three residential settings significantly differ ( $F(2,171) = 100.161, P < .0005$ ). The last row reports that there is a statistically significant difference in others orientation, among children of the three residential settings ( $F(2,171) = 53.694, P < 0.005$ ). In sum, it can be concluded that the mean of altruistic orientations for the three residential settings are not equal or at least the means of one of the residential settings differs from the mean of the other two. In terms of probability, it implies that the probability that the observed differences in the mean on altruistic behavior among the three residential settings would have occur by chance if the null hypothesis of the present study, that states "the mean of altruistic behavior among the three residential setting is equal" is true is less than 0.05. Therefore, it can be said that, not all of the three residential settings' altruistic means are equal.

After, the hypothesis that there is no difference in altruistic behavior is rejected, the researcher is still faced with the problem of deciding which pairs or combinations of means are not equal. That is, the problem now is to determine which means differ significantly after a significant F- ratio has been found in the ANOVA summary. To achieve this objective, a post hoc comparison test, Tukey or Newman- Keuls method is used since the group sizes for the levels of the independent variable are equal. The following table shows this one.

**Table 12.A posteriori multiple comparison on the six altruistic orientations among children of the three residential settings:**

Dependent Variable	Residential setting	Residential settings	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Hedonistic	SC	IC	.52351(*)	.15593	.003	.1548	.8922
		HC	2.24451(*)	.15593	.000	1.8758	2.6132
	IC	SC	-.52351(*)	.15593	.003	-.8922	-.1548
		HC	1.72100(*)	.15593	.000	1.3523	2.0897
	HC	SC	-2.24451(*)	.15593	.000	-2.6132	-1.8758
		IC	-1.72100(*)	.15593	.000	-2.0897	-1.3523
task	SC	IC	-.23354	.11985	.128	-.5169	.0498
		HC	-.73824(*)	.11985	.000	-1.0216	-.4549
	IC	SC	.23354	.11985	.128	-.0498	.5169
		HC	-.50470(*)	.11985	.000	-.7881	-.2213
	HC	SC	.73824(*)	.11985	.000	.4549	1.0216
		IC	.50470(*)	.11985	.000	.2213	.7881
Self	SC	IC	.45925(*)	.15803	.011	.0856	.8329
		HC	1.98433(*)	.15803	.000	1.6107	2.3579
	IC	SC	-.45925(*)	.15803	.011	-.8329	-.0856
		HC	1.52508(*)	.15803	.000	1.1515	1.8987
	HC	SC	-1.98433(*)	.15803	.000	-2.3579	-1.6107
		IC	-1.52508(*)	.15803	.000	-1.8987	-1.1515
conformity	SC	IC	-.18339	.11318	.240	-.4510	.0842
		HC	-.76176(*)	.11318	.000	-1.0293	-.4942
	IC	SC	.18339	.11318	.240	-.0842	.4510
		HC	-.57837(*)	.11318	.000	-.8460	-.3108
	HC	SC	.76176(*)	.11318	.000	.4942	1.0293
		IC	.57837(*)	.11318	.000	.3108	.8460
empathy	SC	IC	-.94828(*)	.14487	.000	-1.2908	-.6058
		HC	-2.04859(*)	.14487	.000	-2.3911	-1.7061
	IC	SC	.94828(*)	.14487	.000	.6058	1.2908
		HC	-1.10031(*)	.14487	.000	-1.4428	-.7578
	HC	SC	2.04859(*)	.14487	.000	1.7061	2.3911
		IC	1.10031(*)	.14487	.000	.7578	1.4428
other	SC	IC	-.29310(*)	.12166	.045	-.5807	-.0055
		HC	-1.20846(*)	.12166	.000	-1.4961	-.9208
	IC	SC	.29310(*)	.12166	.045	.0055	.5807
		HC	-.91536(*)	.12166	.000	-1.2030	-.6277
	HC	SC	1.20846(*)	.12166	.000	.9208	1.4961
		IC	.91536(*)	.12166	.000	.6277	1.2030

\* The mean difference is significant at the .05 level. Key:HC=home reared children,IC=institutionalized children,SC=street children

The first row of the first line of table 3 reports that the population means for street children on hedonistic orientation is different from institutionalized children and home reared children with a mean of 0.52351 and 2.24451 at the 0.05 level of significance,

**Table 15. Test of between subjects effects of residential setting, sex and age on task oriented altruism:**

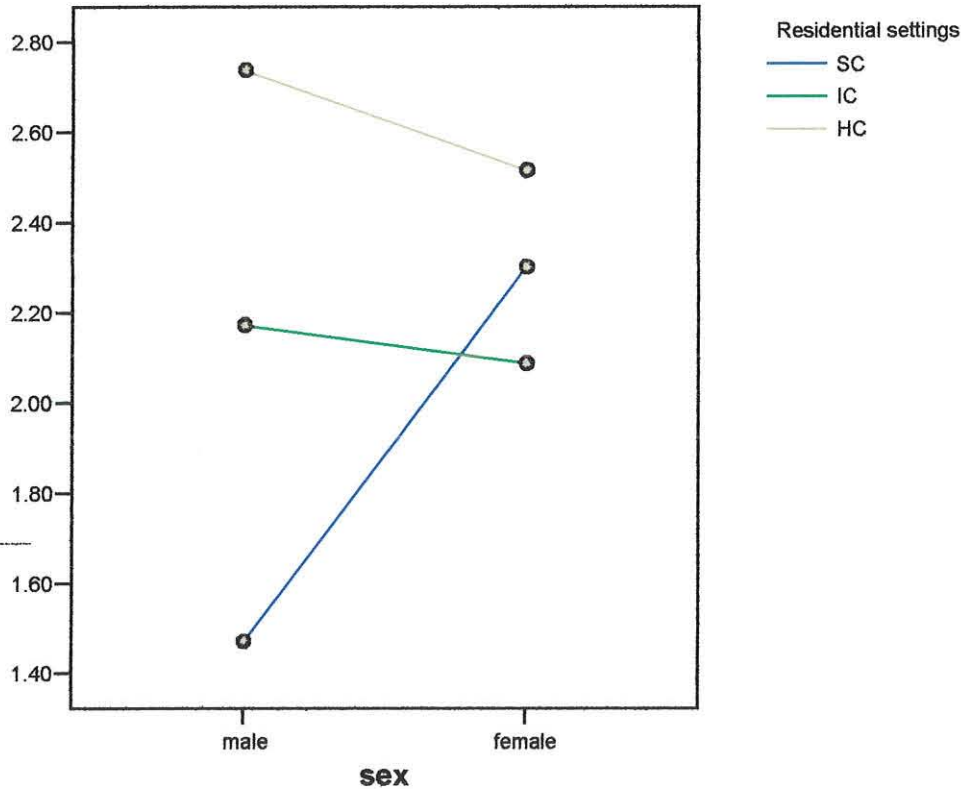
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	31.037(a)	17	1.826	5.022	.000	.354
Intercept	838.246	1	838.246	2305.668	.000	.937
1.Residential setting	16.053	2	8.027	22.078	.000	.221
2.sex	1.313	1	1.313	3.612	.059	.023
3.age	.295	2	.147	.406	.667	.005
4.1x2	9.346	2	4.673	12.854	.000	.141
5.1x3	.679	4	.170	.467	.760	.012
6.2x3	.165	2	.083	.227	.797	.003
7.1x2x3	2.612	4	.653	1.796	.132	.044
Error	56.715	156	.364			
Total	938.413	174				
Corrected Total	87.752	173				

a R Squared = .354 (Adjusted R Squared = .283)

This table indicates that the main effects of residential setting on task orientation was statistically significant ( $F(2,171) = 22.078, P < 0.0005$ ). The main effects of sex on task orientation was not statistically significant ( $F(1,172) = 3.212, P = 0.059$ ). The main effects of age on task orientation was not statistically significant ( $F(2,171) = 0.406, P = 0.667$ ). Residential setting by sex interaction on task orientation was statistically significant ( $F(2,171) = 12.854, P < 0.0005$ ). The interaction effect of residential setting and age on task orientation was not statistically significant ( $F(4, 169) = 0.467, P = 0.760$ ). The interaction effect of sex and age on task orientation was not statistically significant ( $F(2,171) = 0.227, P = 0.797$ ). The three way interaction between residential setting, sex and age on task orientation was not statically significant ( $F(4,169) = 1.796, P = 0.132$ ).

**Interaction plot 1. The interaction effects of residential setting and sex on task oriented altruism:**

**Estimated Marginal Means of task**



Key:HC=home reared children,IC=institutionalized children,SC=street children

Since for this data the lines connecting the cell means are not parallel, the effect of sex is not the same across children of the three residential settings on task oriented altruism; that is there is an interaction between gender of subjects and residential settings on task oriented altruism. The mean for female street children is much greater than the mean for male street children; the mean for male street children is slightly greater than the mean for female street children; the mean for male home reared children is much greater than the mean for female home reared children; and generally as was also seen in the one way post hoc test the mean for home reared children is much greater than that of the mean for the institutionalized and street children on task oriented altruism.

**Table 16. A posteriori multiple comparison on task oriented altruism by residential settings:**

(I) residential setting	(J) residential setting	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SC	IC	-.2335	.11197	.096	-.4985	.0314
	HC	-.7382(*)	.11197	.000	-1.0032	-.4733
IC	SC	.2335	.11197	.096	-.0314	.4985
	HC	-.5047(*)	.11197	.000	-.7696	-.2398
HC	SC	.7382(*)	.11197	.000	.4733	1.0032
	IC	.5047(*)	.11197	.000	.2398	.7696

\* The mean difference is significant at the .05 level  
 Key:HC=home reared children,IC=institutionalized children,SC=street children

Employing Tukey's HSD post-hoc test, statistically significant differences on task-orientation was found between the street and home reared children ( $P < 0.0005$ ), between the institutionalized and home-reared children ( $P < 0.0005$ ), between the home-reared and street children ( $P < 0.0005$ ), between the home-reared and institutionalized children ( $P < 0.0005$ ). There was no significant difference between the street and institutionalized children ( $P = 0.096$ ), or between the institutionalized and street children ( $P = 0.096$ ).

**4.2.3 Differences in self-oriented altruism among children in terms of residential setting, sex and age:**

The table in appendix G on descriptive statistics reports that street children had greater mean (3.5439) than the other two groups in self-oriented altruism. Male street children had higher mean (3.7743) than their counterparts (3.3135). Male street children whose age ranged from 15-18 had greater mean than female street children whose age ranged from 15-18. Home reared children had lower mean (2.7294) than institutionalized children (3.0846) male institutionalized children whose age ranged from 7-10 had higher mean than their counterparts.

**Table 17. Tests of between subjects effects of residential setting, sex and age on self-oriented altruism:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	141.450(a)	17	8.321	12.068	.000	.568
Intercept	1271.098	1	1271.098	1843.583	.000	.922
1.Residential setting	119.022	2	59.511	86.314	.000	.525
2.sex	4.193	1	4.193	6.082	.015	.038
3.age	.974	2	.487	.707	.495	.009
4.1x2	3.663	2	1.832	2.657	.073	.033
5.1x3	2.656	4	.664	.963	.429	.024
6.2x3	.179	2	.090	.130	.878	.002
7.1x2x3	4.194	4	1.048	1.521	.199	.038
Error	107.558	156	.689			
Total	1545.207	174				
Corrected Total	249.008	173				

a R Squared = .568 (Adjusted R Squared = .521)

This table reports that the main effects of residential setting on self orientation was statistically significant ( $F(2,171) = 86.314, P < .0005$ ). The main effects of sex on self orientation was statistically significant ( $F(1,172) = 6.082, P = 0.015$ ). The main effects of age on self orientation ( $F(2,171) = 0.707, P = 0.495$ ). The interaction effects of residential setting and sex on self orientation was not statistically significant ( $F(2,171) = 2.657, P = 0.073$ ). The interaction effects of residential setting and age on self orientation was not statistically significant ( $F(4,169) = 0.963, P = 0.429$ ). The interaction effects of sex and age on self orientation was not statistically significant ( $F(2,171) = 0.130, P = 0.878$ ). The three way interaction effect between residential setting, sex and age on self orientation was not statistically significant ( $F(4, 169) = (1.521, P= 0.199)$ ).

**Table 18.A posteriori multiple comparison on self oriented altruism by residential settings:**

(I) residential setting	(J) residential setting	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SC	IC	.4592(*)	.15419	.009	.0944	.8241
	HC	1.9843(*)	.15419	.000	1.6195	2.3492
IC	SC	-.4592(*)	.15419	.009	-.8241	-.0944
	HC	1.5251(*)	.15419	.000	1.1602	1.8899
HC	SC	-1.9843(*)	.15419	.000	-2.3492	-1.6195
	IC	-1.5251(*)	.15419	.000	-1.8899	-1.1602

\* The mean difference is significant at the .05 level.

Key:HC=home reared children,IC=institutionalized children,SC=street children

Using Tukey's HSD post-hoc test, statistically significant differences by self orientation was found between the street and institutionalized children ( $P = 0.011$ ), between the street and home-reared children ( $P < .0005$ ), between the institutionalized and street children ( $P = 0.011$ ), between the institutionalized and home reared children ( $P < .0005$ ), between the home-reared and street children ( $P < .0005$ ), between the home-reared and institutionalized children ( $P < .0005$ ). LSD reports that males ( $0.313$ ) were significantly more self oriented than females ( $p = 0.015$ ) with a mean difference of  $0.313$ .

#### **4.2.4. Differences in conformity oriented altruism among children in terms of residential setting, sex and age:**

The table on descriptive statistics in Appendix H shows that home reared children had higher mean ( $2.6458$ ) than the other two groups. Male home reared children had greater mean ( $2.7085$ ) than their counter parts ( $2.5831$ ). Institutionalized children have higher mean ( $2.0674$ ) than street children on conformity orientation. Female institutionalized children have higher mean ( $2.2257$ ) than their counter parts.

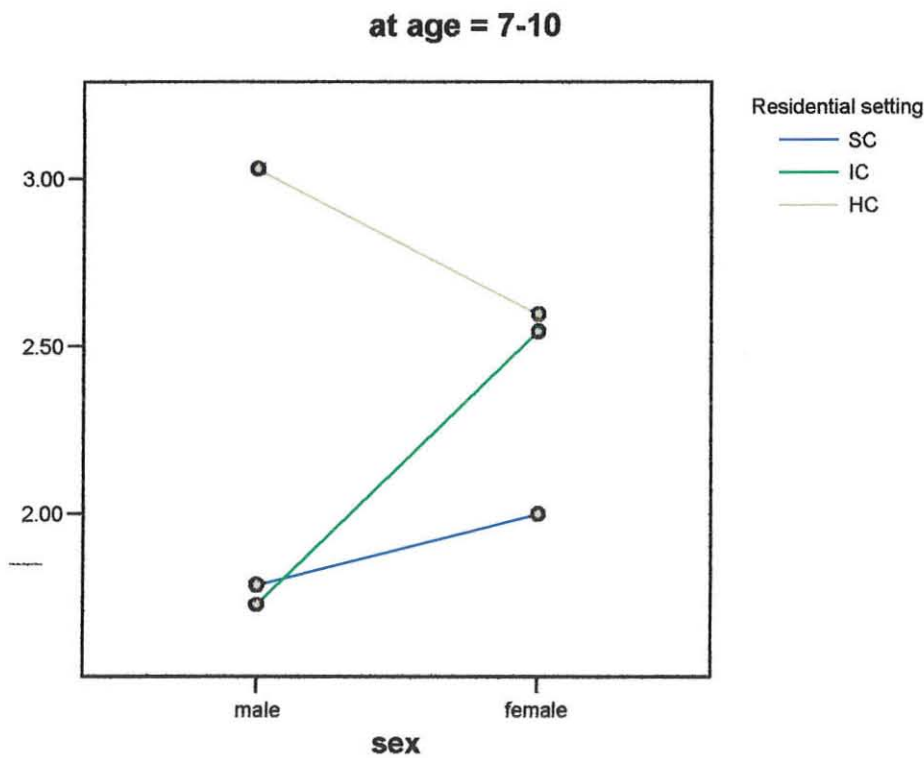
**Table 19. Tests of between subjects effect on conformity oriented altruism by residential setting, sex and age:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	30.737(a)	17	1.808	5.517	.000	.375
Intercept	829.116	1	829.116	2530.136	.000	.942
1.residential setting	17.596	2	8.798	26.848	.000	.256
2.sex	3.092	1	3.092	9.435	.003	.057
3.age	.839	2	.420	1.280	.281	.016
4.1x2	2.714	2	1.357	4.141	.018	.050
5.1x3	.534	4	.134	.407	.803	.010
6.2x3	.453	2	.227	.692	.502	.009
7.1x2x3	4.156	4	1.039	3.171	.015	.075
Error	51.121	156	.328			
Total	923.298	174				
Corrected Total	81.857	173				

a R Squared = .375 (Adjusted R Squared = .307)

This table displays the following: The main effects of residential setting on conformity orientation were statistically significant ( $F(2,171) = 26.848, P < 0.0005$ ). The main effects of sex on conformity orientation was statistically significant ( $F(1,172) = 9.435, P = 0.0031$ ). The main effects of age on conformity orientation was not statistically significant ( $F(2,171) = 1.280, P = 0.281$ ). The interaction effects of residential setting and sex on conformity orientation was statistically significant ( $F(2,171) = 4.141, P = 0.018$ ). The interaction effects of residential setting and age on conformity orientation was not statistically significant ( $F(4,169) = 0.407, P = 0.803$ ). The interaction effects of sex and age on conformity orientation was not statistically significant ( $F(2,171) = 0.692, P = 0.502$ ). The three way interaction between residential setting, sex and age on conformity orientation was statistically significant ( $F(4,169) = 3.171, P = 0.015$ ).

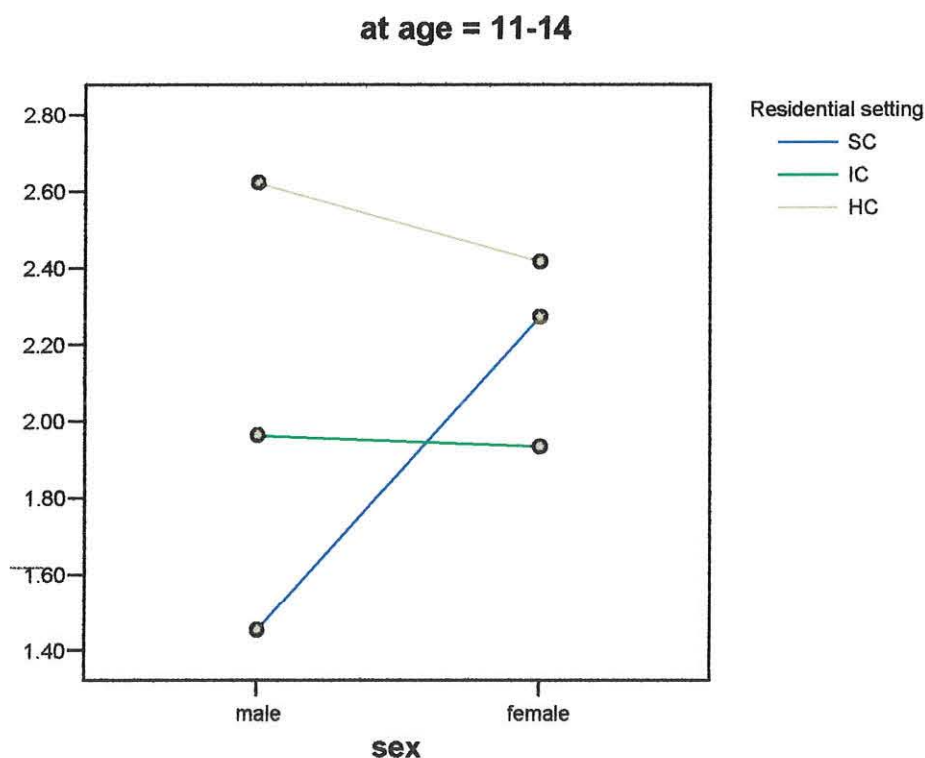
**Interaction plot 2. The interaction effects of sex, residential setting and age on conformity oriented altruism at age 7-10 :**



Since for this data the lines are not parallel or nearly parallel the effect of sex is not the same for the three residential settings; that is there is an interaction between sex of subjects and residential setting for subjects from age 7-10. It shows that the mean for conformity scores for male institutionalized children is much less than the mean for male home reared children. There is only a slight difference among the means for male institutionalized and male street children with the mean for male street children higher than the institutionalized children. The mean for female street children is slightly greater than the mean for male street children on conformity oriented altruism. The mean for female institutionalized children is much greater than the mean for female street children. There is little difference among the means for female institutionalized children and female home neared children who were from age 7-10.

**Interaction plot 3. The interaction effect of residential settings, sex, and age on conformity oriented altruism at age 11-14:**

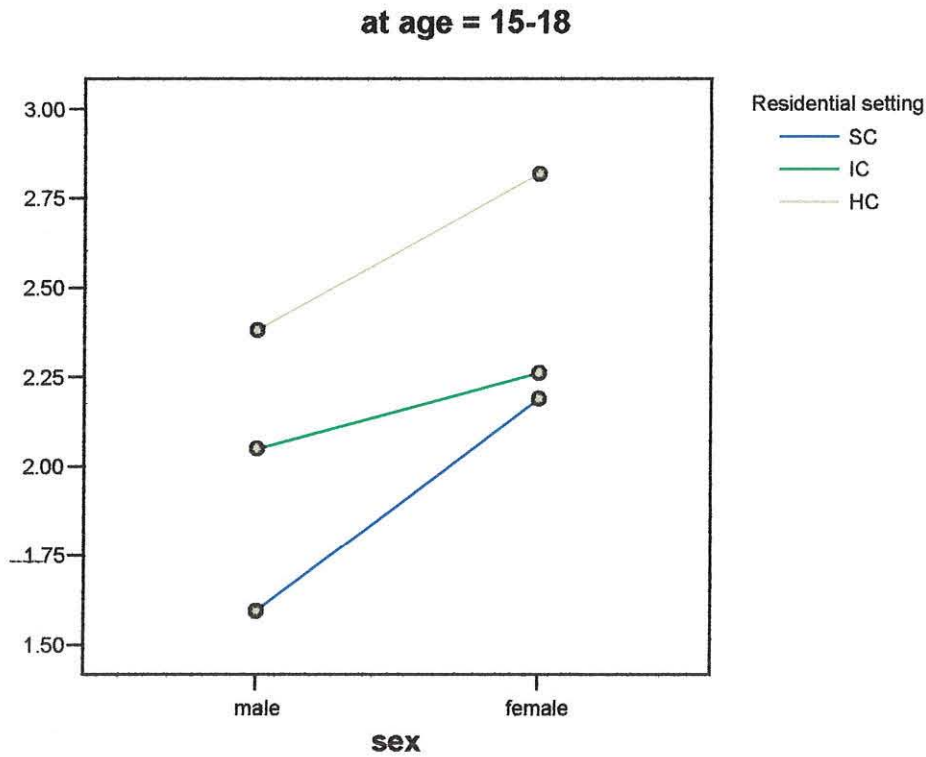
**Estimated Marginal Means of conformity**



This interaction plot shows that the effect of sex of subjects is not the same for institutionalized and street children whose age ranged from 11-14; that is there is an interaction between gender of subjects and residential settings for only these two groups. The mean for male institutionalized children is much greater than the mean for male street children on conformity oriented altruism. It also indicates that the mean for female street children is greater than the mean for female institutionalized children. The mean for female street children (2.40) on conformity oriented altruism is greater than the mean for male street children (1.40). There is little difference among the means for female institutionalized and male institutionalized children for children from age 11-14.

**Interaction plot 4. The interaction effects of residential setting, sex, and age on conformity oriented altruism at age 15-18:**

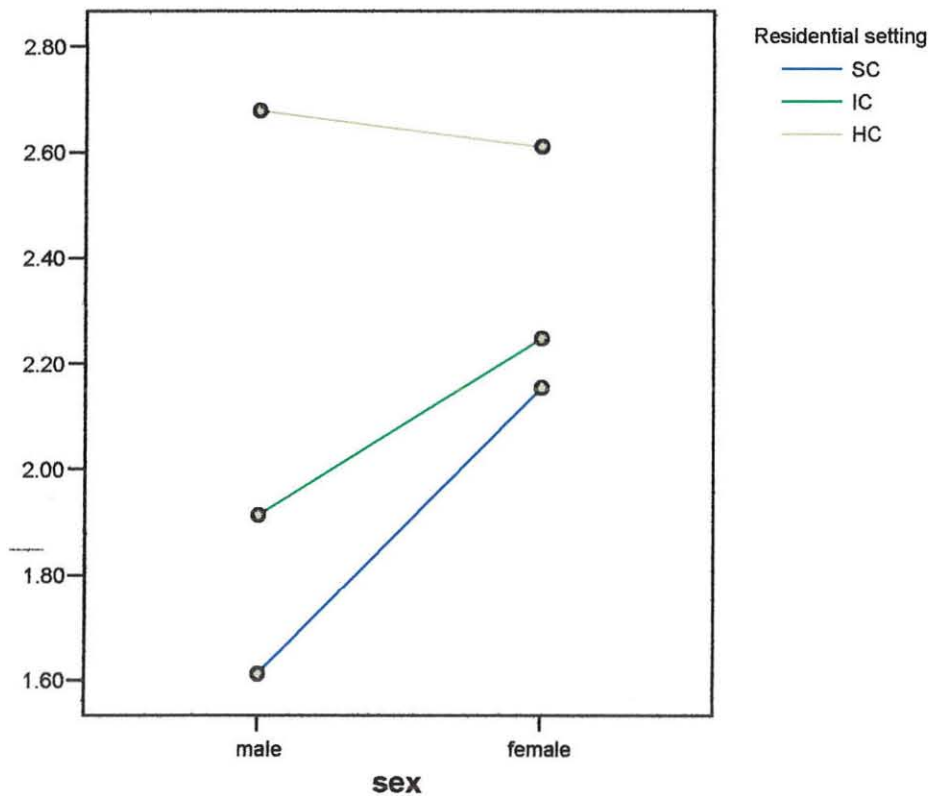
**Estimated Marginal Means of conformity**



Since for this data the lines connecting the cell means are parallel or are at least nearly parallel, the effect of sex of subjects is the same for all home-reared, institutionalized and street children on conformity oriented altruism; that is there is no interaction between gender of subjects and residential settings of subjects for children from age 15-18.

**Interaction plot 5. The interaction effects of sex and residential setting on conformity oriented altruism:**

**Estimated Marginal Means of conformity**



Since for this data the lines are parallel, the effect of sex of subjects is the same across the three residential settings; that is there is no interaction between gender of subjects and residential settings on conformity oriented altruism.

**Table 21. Tests of between subjects effects of residential setting, sex and age on empathetic orientation: setting, sex and age on empathetic orientation:**

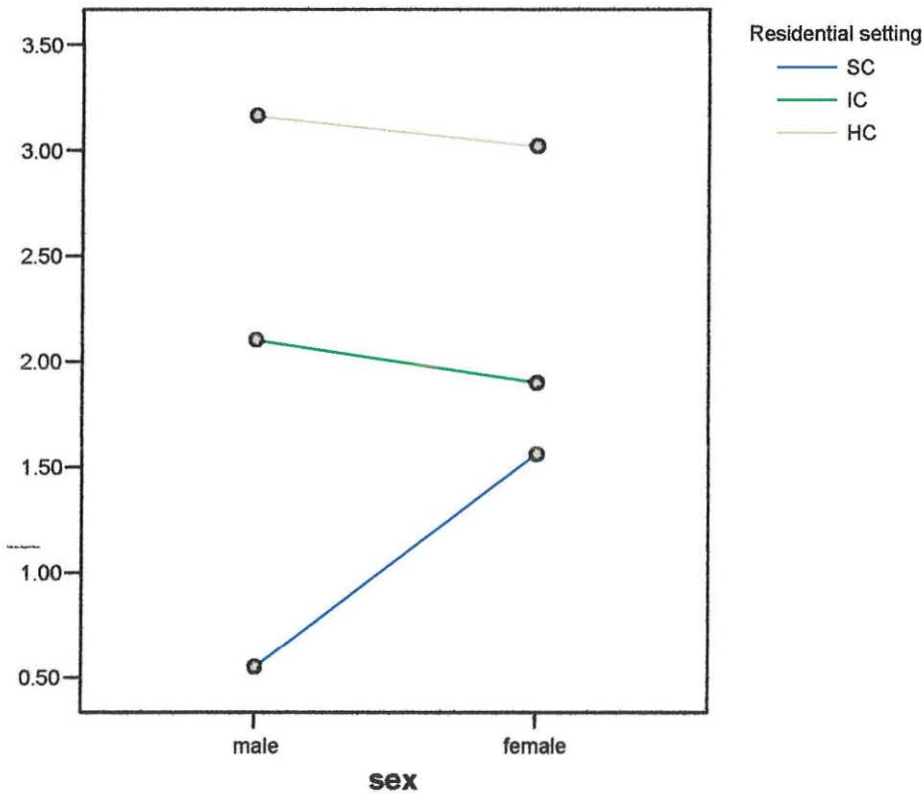
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	142.858(a)	17	8.403	15.765	.000	.632
Intercept	718.305	1	718.305	1347.604	.000	.896
1.residential setting	117.628	2	58.814	110.341	.000	.586
2.sex	2.102	1	2.102	3.944	.049	.025
3.age	.303	2	.152	.284	.753	.004
4.1x2	13.401	2	6.700	12.571	.000	.139
5.1x3	1.390	4	.347	.652	.626	.016
6.2x3	.546	2	.273	.512	.600	.007
7.1x2x3	2.863	4	.716	1.343	.256	.033
Error	83.152	156	.533			
Total	951.033	174				
Corrected Total	226.009	173				

a. R Squared = .632 (Adjusted R Squared = .592)

This table reports the following; The main effects of residential setting on empathetic orientation was statistically significant ( $F(2,171) = 110.341, P < .0005$ ). The main effects of sex on empathetic orientation was not statistically significant ( $F(1,172) = 3.944, P = 0.49$ ). The main effects of age on empathetic orientation was not statistically significant ( $F(2,171) = 0.284, P = 0.753$ ). The interaction effect of residential setting and sex on empathetic orientation was significant statistically ( $F(2,171) = 12.571, P < 0.0005$ ). The interaction effects of residential setting and age on empathetic orientation was not statistically significant ( $F(4,169) = 0.652, P = 0.626$ ). The interaction effect of sex and age was not statistically significant ( $F(2,171) = 0.152, P = 0.600$ ). The three way interaction between residential setting, sex and age was not statistically significant ( $F(4,169) = 1.343, P = 0.256$ ).

**Interaction plot 6. The interaction effects of residential setting and sex on empathetic oriented altruism:**

**Estimated Marginal Means of empathy**



Since for this data the lines connecting the cell means are nearly parallel, the effect of sex of subjects is the same across the three residential settings; that is there is no interaction between gender of subjects and their residential status on empathetic oriented altruism.

**Table 22. Unplanned multiple comparisons on empathetic orientation by residential setting:**

(I) residential setting	(J) residential setting	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SC	IC	-.9483(*)	.13557	.000	-1.2691	-.6275
	HC	-2.0486(*)	.13557	.000	-2.3694	-1.7278
IC	SC	.9483(*)	.13557	.000	.6275	1.2691
	HC	-1.1003(*)	.13557	.000	-1.4211	-.7795
HC	SC	2.0486(*)	.13557	.000	1.7278	2.3694
	IC	1.1003(*)	.13557	.000	.7795	1.4211

\* The mean difference is significant at the .05 level.

Key:HC=home reared children,IC=institutionalized children,SC=street children

Employing Tukey's HSD pots-hoc test, significant differences on empathetic orientation was found between street children and institutionalized children ( $P<.005$ ), between street and home reared children ( $P<.005$ ), between the institutionalized and street children ( $P<.0005$ ), between institutionalized and home reared children ( $P<.0005$ ), between the home-neared and street children ( $P<.0005$ ) between the home reared and institutionalized children ( $P<.0005$ ).

LSD shows that females(0.222) were significantly more empathetic than males( $p=0.049$ ).This might be attributable to gender role expectations that females are expected in the society to be empathetic.

#### **4.2.6. Differences in others-oriented altruism among children in terms of residential setting, sex and age:**

The table on descriptive statistics in Appendix J displays that home reared children had higher mean (2.9420) than the other two groups on others-oriented altruism . Male home reared children were found to have higher mean (3.0219) than female home neared children (2.8621). Institutionalized children had higher mean (2.0266) than street children (1.7335).

**Table 23- Tests of between subjects effects of residential setting, sex and age on others orientation:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	55.880(a)	17	3.287	8.061	.000	.468
Intercept	855.802	1	855.802	2098.734	.000	.931
1.residential setting	44.547	2	22.273	54.622	.000	.412
2.sex	1.852	1	1.852	4.542	.035	.028
3.age	.095	2	.047	.116	.891	.001
4.1x2	3.552	2	1.776	4.355	.014	.053
5.1x3	.236	4	.059	.145	.965	.004
6.2x3	.347	2	.174	.426	.654	.005
7.1x2x3	3.328	4	.832	2.040	.091	.050
Error	63.612	156	.408			
Total	987.934	174				
Corrected Total	119.492	173				

a R Squared = .468 (Adjusted R Squared = .410)

This table indicates the following: The main effects of residential setting on others-orientation was statistically significant ( $F(2,171) = 54.622$ )  $P < 0.0005$ ). The main effects of sex on others orientation was statistically significant ( $F(1,172) = 4.542$ ,  $P = 0.035$ ). The main effects of age on others-orientation was not statistically significant ( $F(2,171) = 0.116$ ,  $P = 0.891$ ). The interaction effects of residential setting and sex on others-orientation was statistically significant ( $F(2,171) = 4.355$ ,  $P = 0.014$ ). The interaction effects of residential setting and age on others orientation was not statistically significant ( $F(4,169) = 0.145$ ,  $P = 0.965$ ). The interaction effects of sex and age on others orientation was not statistically significant ( $F(2,171) = 0.426$ ,  $P = 0.654$ ). The three way interaction between residential setting, sex and age on others-orientation was not statistically significant ( $F(4,169) = 2.040$ ,  $P = 0.091$ ).

**Table24. Unplanned multiple comparisons on others orientation by residential setting:**

(I) residential setting	(J) residential setting	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
SC	IC	-.300(*)	.119	.013	-.535	-.065
	HC	-1.207(*)	.120	.000	-1.444	-.970
IC	SC	.300(*)	.119	.013	.065	.535
	HC	-.907(*)	.120	.000	-1.144	-.670
HC	SC	1.207(*)	.120	.000	.970	1.444
	IC	.907(*)	.120	.000	.670	1.144

\* The mean difference is significant at the .05 level.

Key:HC=home reared children,IC=institutionalized children,SC=street children

Applying Tukey's HSD post-hoc test, significant differences on others-orientation was found between the street and institutionalized children (P=0.040), between the street and home-reared children (P<0005), between the institutionalized and street children (P=0.040), between the institutionalized and home-reared children (P<0005), between the home-reared and street children (P<.0005), between the home-reared and institutionalized children (P<0005).LSD indicated significant difference were found among male and female subjects. It shows that females(0.208) are significantly more other oriented than that of males((p=0.035) with a mean difference of 0.208.

### **4.3. Differences in altruistic behavior among home reared children with different birth order, family size and maternal presence:**

#### **4.3.1 Differences in Hedonistic oriented altruism among home reared children in terms of Birth order, Family size, and Maternal presence;**

The table on descriptive statistics in Appendix K reports that home reared children whose mothers don't live had significantly higher mean (2.1182) on hedonistic oriented altruism than those who have been separated (1.0260) or who live together with their mother (0.3030). Regarding family size, those home-reared children who live with in a family consisting of small family size (1-4 persons living together) had higher mean (1.5808) on hedonistic orientation than children who reside in medium (5-7) and large (>7) family size.

**Table 25. Tests of between subjects effects on hedonistic orientation by birth order, family size and maternal presence:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	28.480(a)	13	2.191	2.551	.010	.430
Intercept	22.573	1	22.573	26.281	.000	.374
1.Birth order	2.155	2	1.077	1.254	.295	.054
2.familysize	1.213	2	.606	.706	.499	.031
3.Maternal presence	9.228	2	4.614	5.372	.008	.196
4.1x2	.226	2	.113	.131	.877	.006
5.1x3	1.489	3	.496	.578	.633	.038
6.2x3	.265	1	.265	.309	.581	.007
7.1x2x3	.861	1	.861	1.002	.322	.022
Error	37.792	44	.859			
Total	174.372	58				
Corrected Total	66.273	57				

a R Squared = .430 (Adjusted R Squared = .261)

This table reports that only the main effects of maternal presence was significant on hedonistic orientation ( $F(2,55) = 5.372, P = 0.008$ ). The main effects of birth order on hedonistic orientation was not significant ( $F(2,55) = 1.254, P = 6.295$ ). The main effects of family size was not significant ( $F(2,55) = 0.706, P = 0.499$ ). The birth order by family size interaction was not significant ( $F(2,55) = 0.131, P = 0.877$ ). The birth order by maternal living interaction was not significant ( $F(3, 54) = 0.578, P = 0.633$ ). The family size by maternal living interaction was not significant ( $F(1,56) = 0.309, P = 0.581$ ). The three-way interaction between birth order, family size and maternal living was not significant ( $F(1,56) = 1.002, P = 0.322$ ).

**Table 26.A posteriori multiple comparison on hedonistic orientation by maternal presence among home reared children**

(I) maternal presence	(J) maternal presence	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No	Separated	1.0922(*)	.25978	.000	.4621	1.7223
	Yes	1.8152(*)	.57380	.008	.4234	3.2069
Separated	No	-1.0922(*)	.25978	.000	-1.7223	-.4621
	Yes	.7229	.55754	.405	-.6293	2.0752
Yes	No	-1.8152(*)	.57380	.008	-3.2069	-.4234
	Separated	-.7229	.55754	.405	-2.0752	.6293

\* The mean difference is significant at the .05 level.

From the of effects tested in the ANOVA table only maternal presence is found to be statistically significant. Hence, the present table indicates which pairs of means of home reared children differ significantly. It shows that home-reared children whose mothers were dead had significantly higher mean on hedonistic orientation than both who were separated from their mother (1.0922) or who live together with their mother (1.8152). Significant differences were not found between those home reamed children who were separated from their mother and who were living with their mothers.

**4.3.2 Differences in task oriented altruism among home-reared children in terms of birth order, family size and maternal presence:**

The table on descriptive statistics in Appendix L reports that home-reared children who were not born first and last in their family had higher mean on task orientation than those who were born first (2,5534) or last (2.6316). In the first born who were born category, those children who live with in a family consisting of 5-7 persons (medium family size) had higher mean (2.6970) than those living with a small family size consisting of 1-4 persons (2.2841). Among the last born category, those home-reared children who were living in a large family size (consisting of greater than even persons living together) had higher mean on task orientated altruism (3.4545).

**Table 27. Tests of between-subjects effects on task orientation by birth order, family size and maternal presence:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	8.936(a)	13	.687	1.193	.316	.261
Intercept	121.604	1	121.604	211.096	.000	.828
1.Birth order	1.231	2	.615	1.068	.352	.046
2.Family size	.585	2	.293	.508	.605	.023
3.Maternal presence	.047	2	.024	.041	.960	.002
4.1X2	1.102	2	.551	.956	.392	.042
5.1X3	1.851	3	.617	1.071	.371	.068
6.2X3	1.243	1	1.243	2.158	.149	.047
7.1X2X3	1.197	1	1.197	2.078	.157	.045
Error	25.347	44	.576			
Total	434.058	58				
Corrected Total	34.282	57				

a R Squared = .261 (Adjusted R Squared = .042)

This table shows the following: The main effects of birth order on task oriented altruism was not significant ( $F(2,55) = 1.068$ ,  $P = 0.352$ , partial  $\eta^2 = 0.0469$ ). The main effects of family size was not significant ( $F(2,55) = 0.508$ ,  $P = 0.605$ , partial  $\eta^2 = 0.023$ ). The main effects of maternal presence was not significant ( $F(2,55) = 0.041$ ,  $P = 0.960$ , partial  $\eta^2 = 0.002$ ). The birth order by family size interaction was not significant ( $F(2,55) = 0.956$ ,  $P = 0.392$ , partial  $\eta^2 = 0.068$ ). The family size by maternal living interaction was not significant ( $F(1,56) = 2.158$ ,  $P = 0.149$ , partial  $\eta^2 = 0.47$ ). The three way interaction between birth order, family size and maternal living was not significant ( $F(1,56) = 2.076$ ,  $P = 0.157$ , partial  $\eta^2 = 0.045$ ).

#### **4.3.3 Differences in self oriented altruism among home-reared children in terms of birth order, family size and maternal presence:**

The table on descriptive statistics in Appendix M reports that home reared children who were born first and whose mother were dead (2.3409) had lower mean on self oriented altruism than those children who were born last and whose mother were dead (2.6364). Regarding family size, those home-reared children who were living in a smaller family size (1-4) have higher mean on self orientation than the other two categories. It is also

#### 4.3.5 .Differences in empathetic oriented altruism among home reared

##### children in terms of birth order, family size and maternal presence:

As can be seen from the descriptive statistics table in the appendix O those home reared children living in a family which consisted of 5-7 have higher mean(2.9212) on empathetic oriented altruism than those with 1-4 persons living together (2.8068).Again first born whose mothers were dead have lower mean (2.4545) on empathetic oriented altruism than last born whose mothers don't alive(3.2727).

**Table 31.Tests of between-subjects effects on empathetic oriented altruism among home-reared children by birth order, family size and maternal presence:**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11.183(a)	13	.860	1.116	.372	.248
Intercept	161.706	1	161.706	209.832	.000	.827
1.Birth order	.812	2	.406	.527	.594	.023
2.Family size	.053	2	.027	.034	.966	.002
3.Maternal presence	2.446	2	1.223	1.587	.216	.067
4.1x2	.497	2	.249	.322	.726	.014
5.1x3	.614	3	.205	.266	.850	.018
6.2x3	.363	1	.363	.471	.496	.011
7.1x2x3	1.017	1	1.017	1.320	.257	.029
Error	33.908	44	.771			
Total	599.207	58				
Corrected Total	45.091	57				

a R Squared = .248 (Adjusted R Squared = .026)

This table shows that the main effects of birth order was not significant on empathetic orientation ( $F(2,55) = 0.527, P = 0.594, \text{partial } \eta^2 = 0.023$ ). The main effects of family size was not significant ( $f(2,55) = 0.034, P = 0.966, \text{partial } \eta^2 = 0.002$ ). The main effects of maternal presence was not significant ( $F(2,55) = 1.587, P = 0.216, \text{partial } \eta^2 = 0.067$ ). The birth order by family size interaction was not significant ( $F(2,55) = 0.322, P = 0.726, \text{partial } \eta^2 = 0.014$ ). The birth order by maternal living interaction was not significant ( $F(3,54) = 0.266, P = 0.850, \text{partial } \eta^2 = 0.018$ ). The family size by maternal living interaction was not significant ( $F(1,56) = 0.471, P = 0.496, \text{partial } \eta^2 = 0.011$ ). The three-way interaction between birth order, family size, and maternal presence was not significant ( $F(1, 56) = 1.320, P = 0.257, \text{partial } \eta^2 = 0.029$ ).

**Table 32. A posteriori multiple comparison on empathetic oriented altruism among home-read children by birth order, family size and maternal presence or absence:**

(I) maternal presence	(J) maternal presence	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No	Separated	-.6766(*)	.24607	.023	-1.2735	-.0798
	Yes	-1.0697	.54352	.132	-2.3880	.2486
Separated	No	.6766(*)	.24607	.023	.0798	1.2735
	Yes	-.3931	.52811	.739	-1.6740	.8878
Yes	No	1.0697	.54352	.132	-.2486	2.3880
	Separated	.3931	.52811	.739	-.8878	1.6740

This table shows that home reared children who were born neither first nor last (3.2670) their family have significantly higher mean on empathetic orientation than those that were born first (2.8814) or last (3.1962). Home-reared children whose mothers were alive had higher mean 3.6970 on empathetic orientation than those whose mothers were alive (2.6273).

**4.3.6. Differences in others-oriented altruism among home-reared children in terms of birth order, family size, and maternal presence or absence:**

The table on descriptive statistics in Appendix p reports that those home reared children that were born last in their family have higher mean (3.0861) than those home-reared children who were born first (2.6877) on others-orientation . Those home reared children who were living with large family size (>7) have who higher mean (3.9091) than those who were living with medium (3.0233) and than those with small family size (2.1721).

#### 4.4 Treatment of Children of the Three Residential Settings by their Respective Socializing Agents when they commit a Mistake

**Table 34. Treatment of children of the three residential settings by their respective socializing agents**

Variable	Category	Frequency	Percent	Valid percent
Fathers' treatment	Ignoring	1	0.6	1.7
	Punishing	10	5.7	17.2
	Advising	47	27.0	81.0
	Total	58	33.3	100
	Missing	116	66.7	
	total	174	100.0	
Mothers' treatment	ignoring			
	punishing	15	8.62	25.86
	advising	43	24.71	74.13
	Total	58	33.3	100
	Missing	116	66.6	
	total	174	100.0	
Brothers' treatment	ignoring			
	punishing	8	4.6	13.79
	advising	50	28.7	86.20
	Total	58	33.3	100
	Missing	116	66.7	
	total	174	100	
Sisters' treatment	ignoring			
	punishing	11	6.32	18.96
	advising	47	27.01	81.03
	Total	58	33.3	100.0
	Missing	116	66.6	
	total	174	100.0	
Relatives' treatment	ignoring			
	punishing	2	1.149	3.44
	advising	56	32.18	96.55
	Total	58	33.3	100.0
	Missing	116	66.6	
	total	174	100.0	
Institutional care takes' treatment	ignoring			
	punishing	8	4.6	13.8
	advising	50	28.7	86.2
	Total	58	33.3	100
	Missing	116	66.6	
	total	174	100.0	
Actions taken by police	ignoring	15	8.62	25.86
	punishing	43	24.71	74.13
	advising			
	Total	58	33.3	100
	Missing	116	66.6	
	total	174	100.0	
Perceptions of street children about the attitude of the society towards them	Negative	45	25.86	77.58
	Undecided	11	6.32	18.96
	Positive	2	1.149	3.44
	Total	58	33.3	100
	Missing system	116	66.6	
	total	174	100.0	

As can be seen from this table, most home reared children were given advice by their fathers 47 (81.0%), by their mothers 50 (86.2%), by their brothers 50 (86.2%), by their

sisters 50 (86.2) and by their relatives 50 (86.2%) when they commit a mistake. It also indicated that most street children 43 (74.1%) were punished by the police when they commit a mistake while 86.2 % of institutionalized children were ignored by their caretakers in the childcare institution. In addition, 77.6% of street children perceive that the society had negative perception towards street children.

# CHAPTER FIVE

## 5. DSSCUSSIONS

### Overview

This chapter is organized in three subsections. The first subsection is devoted to discussions of differences in altruistic behaviors among children of the three residential settings. The second subsection explores discussions on differences in altruistic behaviors among children of the three residential settings in terms of residential setting, sex and age. Finally, the third subsection presents discussions on differences in altruistic behaviors among home reared children with different birth order, family size and maternal presence. Before starting the discussion part, it is necessary to state the research hypothesis forwarded at the beginning.

1. The mean in each of hedonistic, self, conformity, other, task and empathetic-oriented altruistic behaviors for children of the three residential settings are not equal.
2. There is a difference in the mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among children with in the three age catagories.
3. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors for home reared children with different birth order in the family are not equal.
4. There is a difference in the mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among male and female subjects of the study
5. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors for home reared children whose mothers are alive, dead, and who were separated from their mothers are not equal.
6. The mean in each of hedonistic, self, conformity, other, task and empathetic- oriented altruistic behaviors among home reared children with large, medium and small family size are not equal.

### **5.1. Differences in altruistic behavior among children of the three residential settings:**

Significant differences in hedonistic oriented altruism was found among children of the three residential settings ( $F(2,171) = 113.425, P < 0.0005$ ). This result suggests that, other things being equal, the probability that the observed differences in the mean of hedonistic orientation would have occur by chance if the null hypothesis that states there is no difference in hedonistic oriented altruism among children of the three residential setting is true is less than 0.05. Therefore, the student researcher rejected this hypothesis and implied that there is a difference in hedonistic oriented altruism among children of the three residential settings. A similar point was made by Wortman et al (1992) who described that the environmental conditions influences the development of different altruistic orientations on the growing child. It seems to true that the three residential settings differ in social exclusions that the child living in it is exposed. The post hoc test indicated that street children were more hedonistic than both the institutionalized and the home-reared children. Institutionalized children were significantly more hedonistic oriented than the home reared children. This finding suggest that street children (more than the other two groups) perform altruistic acts for others for their own selfish gain expecting some thing in return. The street culture (setting) might have made them to be egoistic helper in that it is socially excluding for them. Investigating this condition, previous studies conducted by Hegarty (1996) indicated that street children are considered by the society as criminals due to their lack of family contact and guidance by responsible adults. This implies that the society excludes street children which might have made them to be hedonistic oriented altruist. It is also indicated in the present study that institutionalized children are more hedonistic oriented than home reared children. In this particular case, the effects of day-care relative to home-rearing have been found to include greater propensity for verbal and physical aggression and less cooperation with adults (Schwartz, Strickland, & Krolick, 2000) less sharing in interaction with adults (Everson, Ambron, Sarnat, Kermojan, & Wenegrat, 2003).

Significant differences among children of the three residential settings were found in task oriented altruism ( $F(2,171)=19.823, P < 0.0005$ ). It meant that not all of children of

the three residential settings' mean on task oriented altruism are equal. The post hoc test indicated significant difference on the mean of task orientation; and home reared children were found to be more tasks oriented than both the street and institutionalized children. It implies that home reared children (more than the other two groups) perform altruistic act by considering only the consequences of their behavior for the other person. A similar point was made by Shaffer (1998) who stated that the development of altruism includes an exposure to altruistic values in the context of a warm-nurturing parent child relation. It implies that home-reared children are socialized by internalizing task oriented altruistic values in the home setting rather than hedonistic values like the street children. Significant differences were not found between the institutionalized and the street children in terms of their mean on task-oriented altruism.

Significant differences in the mean self oriented altruism was found among children of the three residential settings ( $F(2,171) = 86.420, P < 0.0005$ ). This imply the probability that the observed difference in the mean on self orientation would have occur by chance if the null hypothesis of no difference in the mean on self oriented altruism among children of the three residential settings is true is less than 0.05. Therefore, at least the means of one of the three residential settings differ. The post hoc test indicated street children to be significantly more self oriented than both the institutionalized and the home-reared children. In addition, institutionalized children were found to be more self oriented than home reared children. It implies the street children (more than the other two groups) and the institutionalized (more than home reared children) perform altruistic acts for others for the purpose of gaining self respect and living up to their own value. In relation to this point Hegarthy (1996) indicated that street children are regarded individually as deviant or delinquent by those responsible for social control describing that street children in large numbers have come to be perceived as a social threat. This implies that street children are socially ignored and excluded and this might have made them to be self oriented altruist-to help others for their self respect and selfish consideration-which is less advanced type of altruistic reasoning to an altruistic behavior.

Significant differences in the mean conformity oriented altruism for the three residential settings was found ( $F(2,171) = 24.680, P < 0.0005$ ). It indicates the probability that the observed differences in the mean on conformity oriented altruism for the three residential settings would have occurred by chance if the null hypothesis of no difference is true is less than 0.05. Therefore, not all of the three residential settings' conformity oriented altruistic means are equal. The post hoc test indicated that home-reared children were more conformity oriented than both the street and the institutionalized children. This implies that home reared children perform altruistic acts to gain others' approval and acceptance. Hence, for home reared children considerations of other's approval and acceptance justifies prosocial or non-helping behavior. In relation to this point, Huffman and Bohnke, as cited in Boehke et al (1989), indicated that inductive practices in the home setting have been positively related with children's endorsement of intrinsic evaluative standards to altruistic behavior. Significant differences were not found among the street and institutionalized children with respect to their mean on conformity orientation.

Significant difference in empathetic orientation was found among children of the three residential settings ( $F(2,171) = 100.161, P < 0.0005$ ). This suggests that the mean on empathetic oriented altruism for all the three residential settings are not equal. In terms of the concept of probability, the probability that the observed difference in the mean on empathetic oriented altruism for the three residential settings would have occurred by chance if the null hypothesis of no difference is true is less than 0.05, the null hypothesis is therefore rejected and thus not all of the three residential settings' empathetic oriented altruistic means are equal. The post hoc test indicated that home-reared children were significantly more empathetic oriented than both the street and the institutionalized children. This implies that home reared children take the perspective of the other and explicitly use this perspective in their justification to perform altruism. Regarding this condition, Bar-Tal and Raviv (1992) mentioned that the development of the child's helping behavior is influenced by observation of the parents' helping behavior. This implies that home reared children have observed empathetic oriented altruism from their parents and presumably they might have internalized it. It was also found that

institutionalized children were more empathetic than the street children. This seems to be true in that persons serving at the day-care center might substitute partially the biological parents thereby serving as role models for the institutionalized children. In all home reared children (more than the other two groups) help the needy person with the concern with other's humanness and they feel guilt or positive affect in relation to the consequences of their action for others.

Significant difference in others-oriented altruism among children of the three residential settings was found ( $F(2,171) = 53.694, P < 0.0005$ ). It meant that the probability that the observed difference in the mean on others orientation for the three residential settings would have occur by chance if the null hypothesis of no difference on the mean in others oriented altruism is true is less than 0.05. Hence, not all of the mean of the three residential settings are equal. The post hoc test revealed that home reared children were found to be significantly more other oriented than both the street and the institutionalized children. It implies that home reared children perform altruistic behavior for protecting individual rights and preventing injustice that violates another's rights. In this particular case, Shaffer (1981) indicated that once altruistic principles are internalized, the child strives to help others in need so as to avoid punishment from the conscience like guilt, shame, and self degradation for failing to render such assistance. This implies that the home reared children have internalized the value of altruistic behavior that is performed for others well being from their parents. Institutionalized children were more other oriented than street children. To this point, the same logic as previously stated holds true; care givers in the day care center may serve as parental symbols.

## **5.2. Differences in altruistic behaviors among children of the three residential settings in terms of residential settings, sex and age:**

Firstly, the factorial analysis of variance on hedonistic oriented altruism using residential setting, sex and age showed statistically significant main effect only for residential setting ( $F(2,171) = 112.016, P < 0.0005, \text{partial } \eta^2 = 0.590$ ). This suggests that there was a difference on the mean of hedonistic oriented altruism among children of the three residential settings. Similarly as noted in Wortman et al (1992) environmental factors were indicated to have stronger impact on altruistic behavior rather. It seems reasonable

to assume that the type of the environment the child was socialized strongly influences the altruistic behavior of an individual. The adjusted  $R^2$  indicated that 59% of the overall variance in hedonistic oriented altruism was accounted for by the factor residential setting. The post-hoc test or after the event test on hedonistic oriented altruism indicated that street children were more hedonistic than both institutionalized and home-reared children, while institutionalized children were found to be more hedonist than the home reared children (this is similar to the post hoc test that was conducted after a significant one-way ANOVA). This implies that the street children perform altruistic acts for the purpose of selfish gain to themselves. This might be emanated from the mere fact that they were socialized in hostile and conflict prone residential setting (street area). The main effects of sex and age were non-significant on the mean of hedonistic oriented altruism. Therefore the researcher does not reject the held null hypothesis of no difference on sex and age.

Secondly, factorial analysis of variance on task-oriented altruism by residential setting, sex and age showed that only the main effects of residential setting to be significant ( $F(2,171) = 22.078, P < 0.005$ ). Therefore, it is important to note that the probability that the observed differences in the mean on task-oriented altruism for the three residential settings would have occur by chance if the null hypothesis of no difference about this independent measure is true is less than 0.05. Thus the mean of one of the three residential settings on task oriented altruism differ. The post hoc test indicated that street children and institutionalized children were less task-oriented than home reared children. Significant differences were not found between the other combinations. It implies that home reared children were socialized to feel good as a result of a particular course of action without giving reason. The main effects of sex and age were non significant with  $F(1,172) = 3.612, P = 0.059$  and  $F(2,171) = 0.406, P = 0.667$  respectively. Therefore, the null hypothesis of no difference on task oriented altruism by the main effects of sex and age was not rejected since the probability of committing type I error is  $> 0.05$ . It implies that there is no difference in task oriented altruism among male and female and among children within different age category. In addition the residential setting by sex interaction was found to be significant. It suggests that the effect of sex is not the same

across children of the three residential settings on task oriented altruism; that is there is an interaction between gender of subjects and residential settings on task oriented altruism. The mean for female street children is much greater than the mean for male street children; the mean for male street children is slightly greater than the mean for female street children; the mean for male home reared children is much greater than the mean for female home reared children; and generally as was also seen in the one way post hoc test the mean for home reared children is much greater than that of the mean for the institutionalized and street children on task oriented altruism.

Thirdly, factorial analysis of variance on self orientation by residential setting sex and age yielded significant main effects for residential setting and sex with ( $F(2,171) = 86.314, P < 0.05$  and  $(1,172) = 6.082, P < 0.015$ ) respectively. This implies that there is a difference in self oriented altruism among children of the three residential settings. It also implies that there is a difference in self oriented altruism among male and female subjects. Similarly, cross-cultural work has verified that gender differences are not limited to only a few cultures and may developed with age (Whiting & Edward, 1993). The post hoc test showed that street children were found to be significantly higher than home-reared children and institutionalized children in the mean on self oriented altruism. Institutionalized children were also found to be significantly higher self oriented than that of home-reared children. It implies that the street and institutionalized children. Perform altruistic acts for their own self respect for their own self benefit. The socially excluding residential setting of the street and the day care center might have made them to be selfish helpers. This presence of social exclusion on street area is evident from a public statement on radio, by a governmental official in Sudan, as cited in Flegay (1996) which indicated that street children were portrayed as posing a definite social threat to the future fabric of society. Thus, it seems to be true that the street setting is a socially rejecting environmental setting and it seems reasonable to assume that it is for this reason that the street children were self oriented altruist. Institutionalized children were also more self oriented than home reared children. In relation to this scar, as cited in Frew (1994) stated that having no parental figures or being treated in terribly deprived circumstances have clear determinately effects on a child's development. Employing LSD post hoc test,

significant difference were found on self oriented altruism between males and females; with males being significantly much greater than females ( $P = 0.015$ ) with a mean difference of 0.3.13. It implies that males are more self oriented than females. It means that boys help due to orientations to practical concerns that are unrelated to selfish considerations for their self respect. In a similar fashion, Carlo et al (1992) found that girls use some of relatively sophisticated types of prosocial moral reasoning than do boys. It seems that differences in sex in prosocial responding might seem to be resulted from stereotypic gender roles, for example in Ethiopian culture females are expected and encouraged to be more responsive, empathetic and prosocial than males. This cultural belief seems to be contributed to sex differences in self oriented altruism among male and females in the present study with males being greater than females.

Fourthly, the factorial analysis of variance on conformity oriented altruism by residential setting, sex and age showed significant result for the main effects of residential setting ( $F(2,171) = 26.848, P < 0.0005$ ), for the main effects of sex ( $F(1,172) = 9.435, P = 0.003$ ), and for their interaction ( $F(2,171) = 4.141, P = 0.018$ ). Hence, this implies that; (1) there is a difference on conformity oriented altruism among the three residential settings, (2) there is a difference in conformity oriented altruism among male and female subjects, and (3) there is a difference in conformity oriented altruism among the interaction of sex and residential setting. However, it has been shown that there was no difference in conformity oriented altruism among children with different age groups ( $F(2,171) = 1.280, P = 0.281$ ). Contrary to this last finding on age Bar-Tal and Nassins (1994) found that the motives for helping behavior develops with age and the quality of helping act changes as a result of age. The post hoc test indicated that home-reared children were more conformist than both the street and the institutionalized children. Significant differences were not found between the street and the institutionalized children in regard to the mean on conformity oriented altruism. This finding implies that home reared children were socialized to perform altruistic acts to get others' approval and acceptance. Similarly, Staub (1992) asserted that the development of prosocial behavior is enhanced by a sense connection to others (eg through attachment and benign social environment), exposure to parental warmth (which fosters a positive identity and sense of self as well as attachment), adult

guidance, and children's participation in social activities. The interaction plot that was drawn after a significant interaction indicated that the effects of sex was not the same on conformity oriented altruism across the three residential settings. This implies that there was an interaction between sex of subjects and their residential status for subjects with in the age range of seven to ten. More specifically, it was found out that the mean for conformity scores for male institutionalized children was much less than the mean for male home reared children. It implies that male home reared children are socialized to perform altruistic acts for gaining others approval than that of their institutional counterparts. The mean for female street children was slightly greater than the mean for male street children on conformity oriented altruism. Even if the interaction effects of sex and residential setting was not investigated among scholars to the knowledge of the student researcher, regarding sex differences in altruistic behavior Eagly and Crowley (1986) have indicated that girls and women's may be more likely to embed prosocial actions in personal relationships, where as boys and men may be more likely to engage in impersonal, instrumental acts of prosocial behavior. It implies that females perform altruistic acts to gain other's approval and acceptance than do boys. The effect of gender of subjects was not the same across institutionalized and street children whose age ranged from 11-14. It implies that there was an interaction between gender of the home neared and institutionalized children on conformity oriented altruism. The mean for male institutionalized children was found to be greater than the mean for male street children on conformity oriented altruism. The mean for female street children on conformity oriented altruism was much greater than the mean for male street children at age 11-14. Similarly, Carlo et al (1996) have suggested that sex differences in reported altruism may increase as children become more aware of, and perhaps are more likely to internalize in their self image, sex role stereotypes and expectations. It seems reasonable therefore to assume that since the society expects females to be more conformist, they are more likely to respond that way on the PSMQ. Employing LSD post hoc test, significant differences were found between the males and females on conformity oriented altruism ( $P = 0.003$ ) with females being significantly more conformity oriented than males with a mean difference of 0.269. It implies that females are more oriented to others' approval and acceptance in deciding to help others .I t also meant that girls justify their altruistic

behavior by others approval and acceptance. Similarly, Eagly and Crowley (1986) indicated that girls and women may be more likely to embed prosocial actions in personal relationships, whereas boys and men may be more likely to engage in impersonal, instrumental acts of prosocial behavior. Significant interactions were not found for the other interactions.

Fifthly, the factorial analysis of variance on empathetic orientation with residential setting, sex and age showed significant difference for the main effects of residential setting ( $F(2,171) = 110.341, P < 0.0005$ ), Sex ( $F(1,172) = 4.542, P = 0.035$ ), and for the residential setting by sex interaction ( $F(2,171) = 4.355, P = 0.014$ ). Even if the interaction effects of sex and residential setting on empathetic oriented altruism seems to be significant in the factorial ANOVA, the interaction plot suggested that the interaction effect of residential settings is the same across gender of subjects and that there is no interaction. In all it could be indicated that (1) there is a difference on empathetic oriented altruism among children in the three residential settings; (2) there is a difference in empathetic oriented altruism among male and female subjects; and (3) there is a difference among the interaction of sex and residential setting in empathetic oriented altruism. The main effects of age on empathetic oriented altruism was not significant ( $F(2,171) = 0.284, P = 0.753$ ) which implies that there is no difference in empathetic oriented altruism among children of different age category. Contrary to this finding, Bart-Tal et al (1990) found that older children tend to assist more often than do younger children in contexts in which the effects of compliance and rewards or costs are minimized. The post hoc test showed that the mean for home reared children was significantly higher than that of the street and the institutionalized children on empathetic oriented altruism. The mean for institutionalized children was significantly higher than that of the street children. This implies that children reared in the home are more empathetic - meaning that they take the perspectives of the needy person and explicitly use this perspective in their reasoning to their altruistic act (which is more advanced level of altruistic behavior). Similarly, Raviv and Bar-Tal (1992) indicated that the development of the child's helping behavior is influenced by the observation of the parents' helping behavior in the home setting. This implies that home reared children

model prosocial behavior that is performed by taking the needy individual's perspective from their parents. Significant differences were found between males and females on empathetic oriented altruism ( $P = 0.049$ ) with females being significantly more empathetic than males. It means that girls take the perspectives of the helpee and uses this perspective in their reasoning to perform altruism than do boys. In relation to this point, Eagly and Crowley (1986) indicated that girls and women's may be more likely to be more likely to embed prosocial actions in personal relationships, where as boys and men may be more likely to engage in impersonal, instrumental acts of prosocial behavior. This might be because the families reinforce and reward boys to be independent and achievement oriented while in the opposite it seems to reward girls to be empathetic and responsive

At last, the factorial analysis of variance on others orientation by residential setting, sex and age showed significant result for the main effects of residential setting ( $F(2,171) = 54.622, P < 0.0005$ ), for the main effects of sex ( $F(1,172) = 4.542, P < 0.035$ ), and for the interaction of residential setting by sex ( $F(2,171) = 4.355, P = 0.014$ ). In relation to the hypothesis stated previously it implies: (1) There was a statistically significant difference in others oriented altruism among children residing in different residential setting, (2) there was a statistically significant difference in others oriented altruism among male and female subjects, and (3) there was a statistically significant difference in others-oriented altruism among the interaction of these variables. Even if the interaction effects of sex and residential setting on others-oriented altruism seems to be significant in the factorial ANOVA, the interaction plot suggested that the interaction effect of residential settings the same across gender of subjects and that there is no interaction. Significant differences were not obtained in others oriented altruism among children's with different age groups. Simply put, it can be indicated, in the relation to the purpose of the present study that, there was a difference in the mean on others oriented altruism among children of different residential settings, and among male and female. The post hoc test showed that home-reared children were significantly more other oriented than the street and institutionalized children. Institutionalized children were also more other oriented than the street children. Females were found to be significantly more other

oriented than males on the empathetic oriented subscale ( $P = 0.035$ ). In relating to this, Carlo et al (1996) have indicated that in adolescence femininity is positively related to internalized prosocial reasoning while masculinity is related to hedonistic reasoning for boys. Again as previously indicated this gender difference in other oriented altruism might seem the result of gender role expectation in that girls are expected to sympathetically care and concern for others.

### **5.3. Differences in altruistic behaviors among home reared children with different birth order, family size, and maternal presence:**

First, the factorial analysis of variance on hedonistic oriented altruism by birth order, family size and maternal presence indicated that the main effects of maternal presence was found to be significant on hedonistic oriented altruism ( $F(2, 55) = 5.372, P = 0.008$ ). This implies that the probability that the observed difference in the sample mean would have occur by chance if the null hypothesis that states there is no difference in hedonistic oriented altruism among home reared children whose mothers alive, were dead or separated were true is less than 0.05. Therefore, the student researcher can risk rejecting this null hypothesis and concludes that there is a difference. Similarly, Steinberg, Greenberger, Garduque, Rugiero, and Vaux (1982) indicated that children's comforting behavior was positively related with parental dependency (including the need for help with chores) was particularly high for boys in mother headed homes. This implies that there might be a difference in altruistic behavior of children as a result of maternal presence or absence in the home. The a posteriori multiple comparison on hedonistic oriented altruism by maternal presence among home reared children indicated that home reared children whose mothers were dead were significantly higher on hedonistic oriented altruism than those who were separated from their mothers or who live together with their mothers. This implies that children whose mothers were dead help others for their self benefit and expecting that the helpee will help them in the future which is extrinsically oriented and less advanced altruistic behavior. In this particular point, Keith, Nelson, Schlaback, and Thompson (1990) found that 10 - to - 14 - year olds from two parent families in which one parent was not employed participated in volunteer activities than did adolescents from single parent families. In a similar fashion, Mussun-Miller

(1991) found that siblings were more helpful in the presence of their mothers than in the mother's absence. This implies that, in a single parent families where the mothers were dead and therefore might not be at home, may lesson opportunities or chances for socialization of certain types of sibling or peer related prosocial behaviors or for involvement in volunteer activities out of the home. This seems the reason that home reared children whose mothers were dead were significantly more hedonistically or selfishly oriented to help.

Second, the factorial analysis of variance on task oriented altruism by birth order, family size, and maternal presence among home reared children showed no significant result either for the main or interaction effects ( $P > 0.05$ ). Thus, one can indicate that: (1) There is no significant difference in task oriented altruism among home reared children whose mothers are alive, whose mothers were dead, and who were separated from their mother, (2) there is no significant difference in task oriented altruism among home reared children with large, medium and small family size, (3) there is no significant difference in task oriented altruism among home-reared children with different birth order in their family.

Third, the main effects of maternal presence on self oriented altruism was found to be significant ( $F(2,55) = 4.496$ ,  $P = 0.017$ , partial  $\eta^2 = 0.170$ ). This implies that the probability that the observed difference in the sample mean would have occur by chance if the null hypothesis that stated there is no difference in self oriented altruism among home reared children whose mothers alive, don't alive or separated were true is less than 0.05. Hence, the student researcher can risk rejecting this null hypothesis by concluding that there is a difference in self oriented altruism among these home reared children. The a posteriori multiple comparisons indicated that home reared children whose mothers don't alive were significantly higher than those who were separated from their mothers or those whose mothers were alive on self oriented altruism. It implies that those home reared children whose mothers don't alive were more self oriented. Similarly, Steinberg, Greenberger, Garduque, Rugiero, and Vaux (1982) have also indicated that children from single parent families might be more likely to work, and work does not appear to foster

adolescent's concern for others. It implies that children whose mothers don't live might help but this help might not be emanated from a true concern for the helped. It means that they rather perform altruistic acts for their self respect such as for example because helping might strengthen their muscle. In relation to this point Staub (1992) asserted that the development of prosocial behavior is enhanced by a sense connection to others (e.g. through attachment and benign social environment), exposure to parental warmth (which fosters a positive identity and a sense of self as well as attachment), adult guidance, and children's participation in prosocial activities. It seems to be true that those home-reared children whose mothers don't live were not exposed to parental warmth and it seems that they have low sense of connection to others-in that they help others for the purpose of gaining self respect.

Third, the factorial analysis of variance on conformity oriented altruism, empathetic oriented altruism, and others oriented altruism among home reared children by family size showed no significance result ( $P > 0.05$ ). Therefore, the hypothesis of no difference on the mean in conformity orientation about on mean in conformity orientation about these independent variables was not rejected. Hence, it can be suggested that there is no statistically significant difference on conformity oriented altruism among children living in small, medium and large family size. Similarly, Findings on family size are also inconsistent. Some investigators have found that family size and others behavior or sympathy are unrelated (Caulley and Tyler 1999) others have found that children in large families are more generous (Ugurel-Semin, 1992) but less likely to help in emergency situations (Staub, 1996) or comfort a peer (Rehberg & Ricman, 1999). In contrast, Weissbrod (1996) found that large family size was related to slower helping in emergency but higher levels of generosity. In sum this differences in the result on family size could be attributed to differences in the sample size and the methods employed.

Fourth, the factorial analysis of variance on empathetic oriented altruism, other oriented altruism, and conformity oriented altruism by birth order among home reared children did not indicated significant result ( $P > 0.05$ ). It implies that the hypothesis of no difference on the mean in empathetic oriented altruism about birth order, family size and maternal

presence was not rejected. In the same fashion, findings concerning ordinal positions are limited. First born children, particularly girls, have been found to be more willing to give commodities to peers (Knight, 1992) and to intervene in an emergency (Staub, 1996). Moreover, older siblings, in comparison to younger siblings, more often behave prosocially in sibling interaction (Broady, 1995). However, other researchers have found no relation between birth order and various measures of prosocial responding (Gelfand et al, 1995); or sympathy (Loban, 1953), or have found younger siblings to be more prosocial than first born (Raviv & Bar-Tal, 1991). Hence, the findings of the present study is similar to the later since there were no difference in the above indicated altruistic subscales with the consideration of birth order as a factor in the factorial analysis.

At last, the factorial analysis of variance on others oriented altruism, empathetic oriented altruism. and conformity oriented altruism by maternal presence among home reared children showed not significant result ( $P > 0.05$ ). It implies that the hypothesis of no difference on the mean in others oriented altruism among children whose mothers were alive, were dead and were not present was not rejected and hence it is reasonable to conclude that there was no difference in others, empathetic and conformity oriented altruism among home reared children with maternal presence as an independent factor. Family structure might play a role in social status differences in prosocial behavior. Parental presence versus absence might have effects on children's prosocial development. Contrary to this finding, Keith, Nelson, Schlaback, and Thompson (1990) found that 10 to 14 years old from two parent families in which one parent was not employed participated in more volunteer activities than did adolescents from single-parent families. Similarly, Musun-Miller (1991) found that Siblings were more helpful in the presence of their mothers than in mother's absence. This contradiction might result of differences in the culture of the society in that this previous studies were conducted in America where there is individualistic culture and that seems the reason why the effect of family size was significant to differences of children on altruistic orientations. The assumption is that in collectivistic culture the effect of family size might not be as such significant in that collectivism by it self is a contributive factor for the development of more advanced altruistic behavior even if there is a little chance that there could be a

difference in altruism among children in the collectivistic culture when family size is considered as an independent factor. Thus, the findings of the present study imply that there was no effect of mothers presence in the household on measures of altruistic responding of children on empathetic, other, and conformity oriented altruism.

#### **5.4 Treatment of Children of the Three Residential Settings by their Respective Socializing Agents**

As it was indicated in section 4.4 most home reared children were given inductive techniques of discipline (advice) when they commit mistake by their parents and siblings. The factorial analysis of variance in section 4.2 also indicated that home reared children were significantly more intrinsically oriented (more empathetic, task oriented and other oriented) than both the institutionalized and the street children. In relation to this point, Staub (1992) asserted that the development of prosocial behavior is enhanced by a sense connections to others, exposure to parental warmth, adult guidance and children's participation in prosocial activities. In this particular case, Eisenberg, Fabes, Murphy, et al (1994) suggested that parental practices in the home setting that help children to cope with their own negative emotions in a constructive fashion foster sympathy and prosocial behavior than personal distress reactions. It was also indicated 4.4 that 74.1% of street children were punished by the police when they commit a mistake. The factorial analysis in section 4.2 dictated also that street children were extrinsically oriented to help (more hedonistic, self oriented) than both the institutionalized and the home reared children. Similarly, a number of researchers have also indicated that physical abuse of children has been linked to low levels of children's empathy and prosocial behavior (George and Main, 1979; Howes and Eldredge, 1985; Main and George, 1985; Straker and Jacobson, 1981) as well as in appropriate behavior (eg. aggression) toward distressed peers Howes and Eldredge, 1985). It has also been indicated by Hottman (1970a) that power assertion has been associated with external moral orientation such as hedonism, self orientation and conformity. Therefore, it seems reasonable to assume the reason that street children in the present study were externally oriented was because they were punished by the police.

It was also indicated that 77.6% of street children perceive that the society had negative perception towards street children. This implies that they think that they were socially excluded the people around implying that there is a threat to their sense of belongings in the community. Similarly, Baumeister et al (2002) concluded that a threat to one's sense of belongingness might reduce one's willingness to perform prosocial acts. They reasoned out for this argumentation that prosocial behavior depends on believing that one is part of the community in which people mutually seek to aid, support, and occasionally, to love each other. In all since street children think that the society has negative attitude towards them, this implies that they were socially excluded. Therefore, it can be concluded that social exclusion of the street children by the society resulted in the development of extrinsic altruistic behavior. To substantiate this point it would be very important to re-examine a local saying that was indicated at the outset in this paper, which springs from a cultural value that motivate people to be altruistic and which reads like:

«ዘመድ ቢረዳዳ  
ኛግርም አይገዳ»

It means that poverty will not strike people if they cooperate. This implies that greater results could be achieved only when people cooperate and help each other. If the child is not socially excluded, this cultural value will be internalized by the growing children from which one can infer the likelihood of intrinsically (high quality) altruistic behavior that might result from conformity to this cultural value. This by implication meant that, since street children in the present study feel excluded (perceive that the society had negative attitude towards them) their inclination to perform or put into action the saying that "" will be diminished or totally eliminated.

## CHAPTER SIX

### 6. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### 6.1. Summary

The major purpose of the present study was to investigate the altruistic behavior of home-reared, institutionalized and street children in Addis Ababa as a function of age, sex, family size, birth order, and maternal presence. To achieve this objective home reared; institutionalized and street children were used as a primary source of data. One hundred seventy four participants were selected from Tsehay-Chora Primary School, Kechene Children's Home, Kolfe Kenema Children's Home, Piassa, Mexico and Giorgis by stratifying through age and sex. Equal numbers of children were taken from each residential setting, age, and sex categories with 58 subjects from each residential settings, 87 from each sex, and 58 from each age category as subjects of the study.

After backward and forward translations, inter-rater (judge) reliabilities among four judges (raters), and inter item reliabilities of each of the hedonistic oriented, self oriented, conformity oriented, task oriented, other oriented and empathetic oriented altruistic subscales were calculated since the PSMQ consisted more than one construct in that they can't be added together to obtain a total altruism. Equality of variances and normality of the distribution was found to be tenable employing Levene's test of homogeneity of variance and a Ch-square test respectively. Then, subjects were administered the PSMQ through research assistants. After this the data obtained were subjected to inferential statistical analysis using SPSS-12 for windows. First, one-way between-subjects analysis of variance tested the effects of residential setting on the altruistic behavior of children as measured on each of the hedonistic oriented, self oriented, conformity oriented, task oriented, other oriented and empathetic oriented altruistic behaviors. Second, a 2x3x3 factorial analysis of variance tested the effects of sex, residential setting and age on the altruistic behaviors of subjects as measured in each of self oriented altruism, hedonistic oriented altruism, conformity oriented altruism, task oriented altruism, other oriented

suggesting that the street area as a residential setting is socially excluding or rejecting . This is because street children are punished by the police when they commit a mistake .They also think that the society had negative perception about street children. Therefore, it seems reasonable to conclude that this punishment and social rejection might have contributed for street children to help others for their own self benefit.

- ❖ There was a statistically significant difference among children of the three residential settings in the mean task orientation altruism ( $F(2,171) = 19.823, P < 0.0005$ ). Therefore, it can be concluded that not all of the three residential settings' means on task-oriented altruism are equal, and it is reasonable to reject the null hypothesis of no difference. This could be interpreted as suggesting that differences in residential settings of children determines whether children could perform altruism for the purpose of involving in a particular task or not. Hence, it seems reasonable to conclude that differences in residential settings is a contributive factor on task oriented altruism. Tuckey's HSD indicated that home reared children were significantly more task oriented than both the street and the institutionalized children. It implies that home reared children perform altruistic acts because they want to feel good as a result of a particular course of action. This can be interpreted as suggesting that being reared in the home is related to performing altruism for only the sake of involving in a particular task. Hence, it can be concluded that home reared children were socialized to help others for the purpose of involving in a particular task which is a more advanced level of altruistic behavior. Similarly, Eisenberg-Berg (1999) indicated that home reared children help others by considering the consequences of his or her act for the other person. Significant differences were not found between the institutionalized and the street children.
- ❖ Statistically significant difference in mean self oriented altruism was found among children of the three residential settings ( $F(2,171) = 86.420, P < 0.0005$ ). It means the mean on self oriented altruism for all the three residential settings are not equal. This implies that the probability that the observed difference in the mean on self orientation would have occur by chance if the null hypothesis of no difference is true is less than 0.05. Hence, it is reasonable to reject the null hypothesis of no difference

and conclude that at least the means of one of the three residential settings differ. This can be as indicating that differences in residential setting where children reside is a contributive factor for whether children will be oriented for their selfish considerations or not . Therefore it is reasonable to conclude that differences in residential setting is a determinant factor for differences of children in terms of self oriented altruism. Tuckey;s HSD indicated that street children are found to be significantly more self oriented than both the institutionalized and home reared children. Institutionalized children were more self oriented than home-reared children. It clearly indicates that both street and institutionalized children perform altruistic acts for others for the purpose of gaining self respect and living up to their own value. It suggests that street children don't perform altruism for a true concern for others(helppee).This is because the street setting is a socially excluding residential setting and this might have resulted street children to be extrinsically oriented to help, which is less advanced altruistic behavior.

❖ There was a statistically significant difference on conformity orientation for the three residential settings ( $F(2,171) = 24.680, P < 0.0005$ ). It indicates that the probability that the observed difference in the mean on conformity oriented altruism for the three residential settings would have occur by chance if the null hypothesis of no difference is true is less than 0.05. Hence, it is logical to reject the null hypothesis of no difference and to conclude that not all of the three residential settings' conformity oriented altruistic means are equal. Hence it seems reasonable to conclude that differences in the residential status of children have a significant effect on the variation of children in conformity oriented altruisms. For this reason the residential setting where children have been grown determines whether children could help for obtaining audience's approval or acceptance. Tuckey's HSD indicated that home-reared children were significantly more conformity oriented than both the street and the institutionalized children. There was no significant difference on conformity orientation among the street and institutionalized children. Therefore it is obvious that home reared children perform altruistic act to gain others approval and acceptance. Hence, for home-

reared children the considerations of others approval and acceptance justifies prosocial or non-helping behavior. It can also be interpreted as suggesting that children in the home setting are socialized to attend to the audience' emotion and feelings in order to help others. Therefore, it is logical conclude that home reared children are socialized for altruistic behaviors performed for reasons of obtaining acceptance from the audience.

- ❖ A statistically significant difference in emphatic orientation was found among children of the three residential settings ( $F(2,171) = 100.161, P < 0.0005$ ). It implies that the mean on empathetic oriented altruism for all the three residential settings are not equal. In terms of the concept of probability, the probability that the observed difference in the mean on empathetic oriented altruism for the three residential settings would have occur by chance if the null hypothesis of no difference is true is less than 0.05. Therefore, it is logical to reject it and conclude that not all of the three residential settings empathetic oriented altruistic means are equal. Therefore, it seems reasonable to conclude that differences in empathetic oriented altruism can be explained by differences in the residential settings where children reside. Tuckey's HSD indicated that home-reared children were found to be significantly more empathetic than both the street and the institutionalized children. Institutionalized children are more empathetic than street children. This implies that home reared children (more than the other two groups) help the needy person with the concern with the others' humanness; they feel guilt or positive affect in relation to the consequences of their action for others.
- ❖ There was a statistically significant difference in others oriented altruism among children of the three residential settings ( $F(2,171) = 53.694, P < 0.0005$ ). It implies that the probability that the observed difference in the mean on others-oriented altruism for the three residential settings would have occur by chance if the null hypothesis of no difference is true is less than 0.05. Thus, the researcher can risk rejecting it and conclude that not all of the mean of the three residential settings are equal. Tuckey's HSD indicated that home-reared children were found to be significantly more other oriented than both the street and the institutionalized children. Institutionalized children were more other oriented than the street

children. This by implication means that home reared children perform altruistic acts based on expressing concern for the physical, material and psychological needs of others without clear evidence of role taking. This can be interpreted as indicating that being reared in the home is related to expressing concern for others when one helps and this suggests that the home setting is more socially accepting than the other two settings.

In summary the findings on the one way analysis of variance can be concluded under the following points:

- The population mean for the street children on hedonistic orientation was significantly higher than that of the institutionalized and the home reared children.
- The population mean for institutionalized children was significantly higher than that of home reared children on hedonistic orientation.
- The population means for home reared children on task oriented altruism was significantly higher than that of the street and institutionalized children.
- The population means for the street children on self oriented altruism was significantly higher than that of the institutionalized children and home reared children.
- The population mean for the institutionalized children was significantly higher than that of home reared children on self oriented altruism.
- The population mean for home reared children on conformity orientation was significantly higher than that of the institutionalized and the street children.
- The population mean for street children on empathetic oriented altruism is significantly lower than that of the institutionalized and home reared children.
- The population mean for institutionalized children on empathetic oriented altruism is significantly lower than that of home reared children.
- The population means for street children on others oriented altruism was significantly lower than that of the institutionalized and the home-reared children.
- The population mean for the institutionalized children was significantly lower than that of the home-reared children on others oriented altruism.

### 6.2.2. Differences in altruistic behaviors among children of the three residential settings in terms of sex, residential setting and age:

- ❖ From results on the factorial analysis of variance on hedonism using residential setting, age and sex one can conclude that only the main effects of residential setting on hedonistic orientation was statistically significant ( $F(2,171) = 112.016$ ,  $P < 0.0005$ , partial  $\eta^2 = 0.590$ ). It implies that in terms of hedonistic oriented altruism, there was significant difference between children of the three residential settings. Contrary to this, it was found that the main effects of sex and age, and their interaction to be non-significant to differences of subjects on hedonistic oriented altruism: sex ( $F(1,172) = 3.869$ ,  $P = 0.05$ ), age ( $F(2,171) = 0.119$ ,  $P = 0.888$ ), sex by residential setting by sex ( $F(2,171) = 2.448$ ,  $P = 0.90$  residential setting by age ( $F(4,169) = 0.500$ ,  $P = 0.735$ ), Sex by age ( $F(2,171) = 0.210$ ,  $P = 0.810$ ), and finally the three way interaction between residential setting by sex by age ( $F(4,169) = 2.092$ ,  $P = 0.084$ ). For this reason, 59% of the overall variance is accounted for by the factor residential setting. The unplanned multiple comparison on hedonistic orientation by residential setting showed that street children are more hedonistic than both institutionalized and home reared children, where as institutionalized children are more hedonist than home reared children. This implies that the street culture preaches altruism- but altruism performed for self benefit.
- ❖ From results on the factorial analysis of variance on task orientation by residential setting, sex and age only the main effects of residential setting was found to be statistically significant ( $F(2,171) = 22.078$ ,  $P < 0.0005$ ). It implies that the probability that the observed differences in the mean of task orientation in the three residential settings would have occur by chance if the null hypothesis is true is less than 0.05. One can conclude therefore not all of the three residential settings task orientation means are equal. The Tukey's HSB test showed significant difference on task orientation: street children and institutionalize are less task oriented than home reared children. Significant differences were not found between street children and institutionalized children. It implies that with in

the home setting children are socialized to help others with the mere reason of liking to involve in the task that the needy person is faced with.

- ❖ Findings on the factorial analysis of variance on self orientation by the independent variables of residential setting, sex and age, unlike the above consecutive two findings, showed statistically significant main effect for both residential setting ( $F(2,171) = 86.314, P < .0005$ ) and Sex ( $F(1,172) = 6.082, P = 0.015$ ). It implies that the probability that the observed differences in the mean of self orientation for the three residential settings would have occur by chance if the null hypothesis is true is less than 0.05. Hence, the null hypothesis of no difference is rejected and one can conclude that the means of self orientation for the three residential setting is not equal. In terms of sex it also implies that the probability that the observed difference in the mean of self orientation would occur by chance if the null hypothesis that states "there is no difference in self oriented altruism between male and female subjects" is less than 0.05. And one can conclude that the mean for males differs from the mean for females on self-oriented altruism. The unplanned multiple comparison on self orientation using Tukey's HSD showed statistically significant differences in their mean; street children are found to be significantly higher than home-reared children and institutionalized children; institutionalized children are significantly higher than home reared children. It implies that the street and the institution setting socializes children to perform altruistic behavior by using it as an instrumental goal on the way to reach some self benefit.
- ❖ The analysis of variance on conformity orientation by residential setting, age and sex showed significant result for the main effects of residential settings by sex, and for the interaction of residential setting and sex: for residential setting ( $F(2,171) = 26.848, P < 0.0005$ ), for sex ( $F(1,172) = 9.435, P = 0.003$ ), and for their interaction ( $F(2,171) = 4.141, P = 0.018$ ). Put together, it implies that the probability that the observed mean on conformity oriented altruism would have occur by chance if the null hypothesis for the independent variables residential setting and sex, and their interaction is true is less than 0.05. Hence, these null hypotheses are rejected and one can conclude that; there is a statistically

significant difference on conformity oriented altruism among children's in the three residential setting; and among male and female, and the interaction of residential setting and sex. Significant differences were not found for the rest main and interaction effects. Tukey's HSD post hoc test on conformity orientation showed statistically significant differences for the following pairs of means; home reared children are significantly more conformist than both street and institutionalized children. Significant differences were not found between the street and the institutionalized children on conformity orientation. This finding implies that the home reared children are socialized to help a needy person and their basic justification for their altruistic act is to conform to others, for instance to authority figures or to audiences-rather than to the needy person. The interaction plot indicated that the effect of sex was not the same for the three residential settings on conformity oriented altruism for those subjects with in the age range of 7-10. This was interpreted as suggesting that there was an interaction between sex of subjects and residential settings at age 7-10. It was found out that the mean for conformity oriented altruism for male institutionalized children was much less than the mean for male home reared children. This was interpreted as suggesting that male home reared children were socialized to help by considering other's approval and acceptance. A slight difference was found among the means for male institutionalized and male street children higher than that of the male institutionalized children. Again the mean for female street children was found to be slightly greater than the mean for male street children on conformity oriented altruism. This was interpreted as suggesting that girls might be expected to be expected to be conformist than boys; and this might have resulted in gender role expectation that might have made girls to be more conformity oriented on the PSMQ. The point here is that girls might want to full fill what the society expects them to be rather than what they really were. Significant interactions were not found for other interactions

- ❖ The factorial analysis of variance on empathetic orientation with residential setting, sex and age showed significant result for the main effects of only residential setting and the interaction of sex and residential setting with ( $F(2,171)$ )

= 110.341,  $P < 0.0005$ ) and sex by residential setting with  $F(2,171) = 12.571$ ,  $P < 0.0005$ ). The rest variables and their interactions were found to be statistically non significant to empathetic oriented altruism. This finding implies in terms of the concept of probability that, the probability that the observed differences in the mean of empathetic orientation would have occur by chance if the null hypothesis that states "there is no significant difference in the mean of empathetic orientation among children in the different residential setting would have occur by chance" is true is less than 0.05. Thus, the researcher can be sure of rejecting this null hypothesis and can conclude that there is a difference. Thus, in the population, the mean for the three residential settings on empathetic orientation are not equal. With an effort to show which pairs of means significantly differ, the Tukey's HSD post hoc test showed statistically significant mean difference only for the main effect of residential setting and for the interaction effect of residential setting and sex and these conclusions were drawn: in the population, the mean on empathetic orientation for home reared children is significantly higher than the mean for institutionalized children; in the population, the mean for home reared children on empathetic oriented altruism is significantly higher than that of the street children. This finding imply that children reared in the home are more empathetic-meaning that they help needy individuals because they feel the same as this needy person is feeling. This altruistic act with the intention of the actor to be in shoes of the needy person emanated from familial values and beliefs about concern for others security thinking that this problem might happen to some one else. It seems that the home reared children might have internalized this values.

- ❖ The factorial analysis of variance on others orientation with residential setting, sex and age showed significant results for the main effects of residential setting ( $F(2,171) = 54.622$ ,  $P < 0.0005$ ), the main effects of sex ( $F(1,172) = 4.542$ ,  $P = 0.035$ ), and for the interaction of residential setting by sex ( $F(2,171) = 4.355$ ,  $P = 0.014$ ). The main and interaction effects of the rest variables are not statistically significant. The probability that the observed difference in the mean of others orientations would have occur by chance if the null hypothesis of no difference on residential setting and sex is true is less than 0.05. Therefore it is reasonable to

reject the null hypothesis of no difference in the mean of others oriented altruism among children's of different residential setting, and among male and female, and to conclude that there is a difference in the mean on others orientation among children of different residential settings, and male and female. Tukey's HSD post-hoc test showed statistically significant difference between pairs of means: home reared children were significantly more other oriented than street and institutionalized children; institutionalized children were significantly more other oriented than street children. It implies that the main objective of altruistic act for home reared children is to provide benefit for the other person and they are socialized that way.

- ❖ The present study also revealed that boys were significantly more self oriented than girls ( $P = 0.015$ ). This was interpreted as suggesting that boys help due to orientations to practical concerns that are unrelated to selfish considerations for their self respect. Sex differences were found on conformity oriented altruism with females being significantly more conformity oriented than males ( $P = 0.003$ ). This was interpreted as suggesting that females justify their altruistic behavior by others approval and acceptance and that they help others for gaining others' approval. On empathetic oriented altruism, girls were found to be more emphatic oriented than do boys ( $P = 0.049$ ). And this was interpreted as suggesting that girls help the needy person by taking the perspectives of the helped. Sex differences were also found on others oriented altruism with females being more other oriented than males ( $P = 0.035$ ). This was interpreted as indicating that girls help by feeling sympathetic concern and caring for the help.

.In general terms, sex differences in altruistic behaviors were interested as resulted from sex role stereotypes that are held in our culture in that males are encouraged and rewarded to be independent and females are encouraged to be empathetic, responsive and caring. Hence, it seems reasonable to argue that their responses to the PSMQ index may not reflect their true altruistic behavior and therefore their responses may be rather what the society expected them to be. In relation to this point Carlo et al (1996) suggested that sex differences in reported altruism may increase as children become more aware of, and

perhaps are more likely to internalize in their self image, sex role stereotypes and expectations.

### **6.2.3. Differences in altruistic behaviors among home-reared children with different birth order, family size and maternal presence:**

- ❖ The factorial analysis of variance on hedonistic orientation by birth order, family size and maternal presence among home-reared children indicated significant result only for the main effects of maternal presence ( $F(2,55) = 5.372$ ,  $P = 0.008$ ). This was interpreted as suggesting that there was a statistically significant difference among home reared children whose mothers were alive, were dead and whose mothers were not in the home. The unplanned multiple comparisons shows that home-reared children whose mothers don't alive have significantly higher mean on hedonistic orientation than both who were separated from their mother (1.0922) or who live together with their mothers. This implies that maternal absence is a contributive factor for children to be extrinsically oriented to help for selfish considerations. It meant that maternal presence is important for the development of intrinsic altruistic moral orientations among home reared children.
- ❖ The factorial analysis of variance on task oriented altruism by birth order, family size and maternal presence among home reared children indicated no significant results either for the main or interaction effects ( $p > 0.05$ ).
- ❖ The factorial analysis of variance on self-orientation among home-reared children by birth order, family size and maternal presence indicated significant result only for the main effects of maternal presence ( $F(2,55) = 4.496$ ,  $P = 0.017$ ). The post-hoc multiple comparison test showed that home-reared children whose mothers were dead have significantly higher mean than those who were separated from their mothers and those whose mothers were alive. Significant differences were not found between those who are separated from their mothers and those whose mothers were alive.
- ❖ The factorial analysis of variance on conformity oriented altruism among home-reared children by birth order, family size and maternal presence indicated

showed no significant result either for the main or interaction effects of these independent variables( $p>0.05$ ).

- ❖ The factorial analysis of variance on empathetic oriented altruism by birth order, family size and maternal presence or absence among home-reared children showed no significant result either for the main or interaction effects of these independent variables( $p>0.05$ ).
- ❖ The factorial analysis of variance on others-oriented altruism among home-reared children by birth order, family size and maternal presence indicated no significant results( $p>0.05$ ).

#### **6.2.4 Treatment of children of the three residential settings when they commit a mistake**

Results in section 4.4 indicated that home reared children were given advice rather than punishment by parental figures when they commit a mistake, while street children were punished by the police when they commit a mistake. On the other hand, the factorial analysis in section 4.2 indicated that home reared children were more internally oriented to help while street children were found to be significantly more externally oriented to help. In general, it can be concluded from these two findings that punishment of street children has resulted them to be externally oriented to help while the use of advising in the home setting has resulted home reared children to be more internally oriented to help others-which is more advanced prosocial behavior.

#### **6.2.5 Overall conclusion**

In sum, the results of the present study could be concluded under the following argumentation.

1. Street children are externally oriented to help others.
2. Street children were punished by the police when they commit a mistake.
3. Hottman (1970a) has indicated that power assertion has been associated with external moral orientations such as hedonism, self orientation and conformity-which are less advanced altruistic behaviors.
4. Therefore, it is reasonable to conclude that street children have less advanced altruistic behavior (externally oriented to help) since they were punished by the police (which is a power assertive technique).

5. At last, it is clear that street children could be internally oriented to help if socializing agents (the policies) use inductive technique when they commit mistake.

### **6.3. Recommendations**

From the results obtained in the present study, it is possible to give some suggestions and directions for further research under the domain of the following limitations. That is, there are multiple factors that can influence children's altruistic behavior. To mention, but a few, family educational background, socio economic status, children's academic achievement, children's genotype, children's intelligence, children's cognitive capacities, cultural factors, children's sociability and shyness, and assertiveness and dominance. However, the present study has considered only seven variables as predictors of altruistic behaviors, namely, residential setting, family size, birth order, sex, age, and maternal presence as independent measures to investigate differences in altruistic behaviors among children of the three residential settings. In general terms, under the domain of the above limitations, in this subsection the student researcher presents first the over all implications of the findings and

then the recommendations. The implications are the following:

- ❖ As hypothesized significant differences in altruistic behavior were found among children of the three residential settings. Street children are found to be extrinsically motivated to perform altruistic behavior, where home reared children were found to be intrinsically motivated to perform altruistic behavior towards a distressed needy person indicated in the prosocial moral dilemma. This implies that the street setting is a socially excluding residential setting to children of the street. Paradoxically, the fact that home reared children were found to be intrinsically motivated to help implies that they were socially accepted when compared to both children of the street and the childcare center. And this relatively inductive techniques of discipline used in the home setting as it is compared to the other two settings might have resulted home reared children to be intrinsically motivated to help which frequently meant performing altruistic act for others benefit (other orientation), for others welfare (empathy) and for the seek of engaging in the task (task orientation). As hypothesized significant sex

differences in altruistic behavior were also found in the present study ( $P < 0.05$ ). For example females were found to be more conformity oriented and empathetic oriented than boys. This implies that the society expects males to be independent and self oriented while reinforcing females to be empathetic and conforming to others approval and acceptance. Therefore, what has been obtained in the present study about sex differences in altruistic behavior might be a reflection of what the society expects them to be rather than what their true or actual altruistic behavior is. Hence, further research which is more experimentally controlled is needed to confidently determine reasons for sex differences in altruistic behavior

- ❖ As hypothesized maternal presence or absence resulted in a significant difference in altruistic behaviors among home reared children whose mothers are alive, whose mothers were dead and who were separated from their mother ( $P < 0.05$ ). In relation to this it was found that those home reared children whose mothers don't alive were significantly higher on hedonistic oriented altruism and self oriented altruism. This implies that those home reared children whose mothers are absent were more extrinsically oriented to help which is less matured or advanced prosocial moral reasoning to an altruistic act since it frequently meant that those whose mothers were dead perform altruistic acts for their selfish considerations rather than by considering the benefits of their action for the helped. This indicates the negative effects of parental presence versus absence on children's development of altruistic behaviors. Therefore, there is a need for concerned governmental and non-governmental agencies to establish centers for marital therapies and counseling with the objective of increasing marital satisfaction which might in turn decrease the rate of divorce which is one factor for maternal presence or absence.
- ♣ The recommendations are the following:
  - ❖ In the present study it was found out that females were more conformity oriented, other oriented and empathetic than males. The question that is still left open is that does this difference reflect the actual behavior of females or does this reflect what the society expects them to do. To answer this question, in the future, research should be conducted with a need to

assess better the developmental trajectory of any sex differences and to investigate the origins of sex differences in altruistic behavior.

- ❖ Rehabilitation and intervention program that reintegrate children of the street should be established and implemented by concerned governmental and non-governmental agencies. This is because the fact that in the present study children of the street are extrinsically motivated to help reflect their less advanced or matured altruistic moral reasoning to their altruistic behavior which is a direct result of their experience of social exclusion in that they are punished by the police and rejected by the community at large in the street areas. Therefore, there is need to work more to socially accept children of the street and to have positive attitude towards them so as to make them more empathetically or intrinsically oriented to help.
- ❖ Since institutionalized children live in an isolated environmental setting without parental figures guidance and help in a deprived residential settings, concerned governmental and non-governmental agencies should give trainings to the caregivers in the children's day home. This might help care givers to be affectionate and nurturing to children in the child care institutions and that children might be confident that their care givers represent a true parental symbols. This helps institutionalized children to have advanced level of altruistic behavior thereby making them to be intrinsically (empathetically) motivated to help rather than helping for their self interest.
- ❖ It has been clearly indicated that street children are punished by the police when they commit a mistake. These power assertive techniques of discipline might have made children of the street to have external moral orientation to their altruistic behavior. Therefore, there is a need for policy makers to establish rules and laws that questions and punishes policemen that arbitrarily use this power assertive techniques for children of the street. This helps street children to be intrinsically oriented to help others.
- ❖ As hypothesized the negative effects of maternal absence on altruistic behaviors was found such that children whose mothers were absent were

more self-oriented and hedonistic oriented to help. This implies that these children are extrinsically oriented to help which is frequently meant helping others for their self-benefit. This behavior is a result of absence of the mother in the home, which reduces socialization of certain types of altruistic behavior. Therefore, there is a need for concerned governmental and non-governmental agencies to establish centers whose primary objectives are providing marital therapies and marital counseling. This might reduce the rate of divorce, which is one factor for maternal presence or absence thereby increasing marital satisfaction.

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# **Appendices**

Appendix A

Code \_\_\_\_\_

**Addis Ababa University**  
**School of Graduate Studies**  
**Department of Psychology**  
**Social Psychology Stream**

The purpose of this questionnaire is to compare the altruistic behavior of home-reared, institutionalized, and street children. The results of this study might help to provide information for policy makers and welfare institutions on the role of environmental factors on altruistic behavior so that they can adjust their policies and programs. Therefore, the results to be arrived are heavily based on the care you take while responding to each question. However, you will not be forced to take part in the study when you are not in a position to respond adequately to the research questions. Moreover, you are politely requested to respond honestly for each item.

Notes: 1: Personal data will not be known since you do not write your name

2. The questionnaire has 2 parts and these are:

A. Background Information

B. Altruistic behavior (altruistic moral dilemma)

3. Each part has its own instruction, and the interviewer will elaborate further.

I express my heartfelt thank in advance for devoting your time to complete the questionnaire!

*Thank you*

**A: Background Information**

**Direction:-** Below are a list of questions with choices or blank spaces. You are expected to mark "X" on your answers for the choices, and to fill the appropriate answers for other blank spaces.

1. Sex A. Male  B. Female
2. Age \_\_\_\_\_
3. Religion A. Orthodox  B. Muslim  C. Protestant   
D. Catholic  E. Others

**For home-reared children only:**

4. Have you any sister? A. Yes B. No
5. Have you any brother? A. Yes B. No
6. How many persons are living together in your family?  
A. 1-40 B. 5-7 C. >7
7. What is your birth position in your family?  
A. First B. Last C. Other
8. Is your mother living together with you? A. Yes  B. No
9. Are your father and mother living together? A. Yes  B. No
10. Describe what sort of action your father takes when you commit mistake?  
\_\_\_\_\_
11. Describe what sort of action your mother takes when you commit mistake?  
\_\_\_\_\_
12. Describe what sorts of actions your elder brothers take when you commit mistake?  
\_\_\_\_\_
13. Describe what sorts of actions your elder sisters take when you commit mistake?  
\_\_\_\_\_
14. Describe what sorts of action your relatives take when your commit mistake?  
\_\_\_\_\_
15. Describe what sorts of actions your care taker takes when you commit mistake?  
\_\_\_\_\_

**Only for institutionalized children:**

16. Describe what sorts of action your care takers take when you commit mistake?  
\_\_\_\_\_

**For street children only:**

17. Describe what sorts of action the police take whenever you commit mistake?  
\_\_\_\_\_
18. Describe your perception about the attitude of the society towards street children?  
\_\_\_\_\_

**B: Questionnaire on Altruistic Behavior (Altruistic Motivation Battery)**

Direction:- There are 11 scenarios at the top of each page. Six Possible motives were presented in random order after each scenario. You are requested to rate each motive on a 5 point scale that express your reason for your behavior.

1. You're around a shopping center. You see a man in a wheelchair who is having some problems getting up some steps. Someone else passes by, you help the man in the wheelchair.

If you would have done this, what could have been some of the reasons for your behavior? This reason applies to me:

		Not at all	Probably not	Perhaps	Most probably	Quite surely
H.	I was happy when someone come to me so that I do not have to struggle to get the man in the wheelchair up the steps.					
T.	I thought that the other person would also help. It's easier for two people to lift someone in a wheelchair.					
S.	I was proud that this person could see how well I managed the situation.					
C.	The other person certainly expected that I help.					
E.	The man would feel distressed if he could not get up the steps.					
O.	I didn't care what this person thought. When I help someone, I don't notice others.					

For what other reasons might you have done this (please write out)?

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2. It hasn't rained for weeks and there is a danger of fire accidents. In a clearing in the village, you see flammable materials and rubbish lying around, You immediately help others to dispose of these things properly.

If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
S.	I want to be happy with myself not everyone would have done this					
E.	If a fire started, other people could get hurt.					
C.	I thought that it was right to Help					
T.	I was happy that we could get rid of this rubbish.					
O.	It made me happy that I was able to do something for the environment.					
H.	It's fun to work outdoors.					

For what other reasons might you have done this (please write out)?

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3. You are on your way to your friend's living place to go bicycling. You see that a child you know has a flat tire. This child has problems with the inner tube. You decide to help him. If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
E.	I am sure the child would be quite unhappy if he or she could not use the bike.					
S.	Perhaps the child has a good bicycle. If I help now, may be I can ride it some time.					
O.	I thought that the child must be pretty up set about not managing on its own.					
H.	The bicycle was clean so my hands wouldn't get very dirty.					
T.	I thought that two heads Were better than one.					
C.	Most of my friends help in Such situations.					

For what other reasons might you have done this (please write out)?

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4. One-day afternoon you are playing football with your friend. An old woman whom you know wants to go grocery for shopping. You go along to help her carry the shopping bags.

If you would have done this, what could have been some of the reasons for your behavior?

*This reasons applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
H.	I like the hustle and bustle in the super market					
O.	I feel I should help the old woman when she does the weekly shopping.					
C.	I know that my friends also help old people with the shopping.					
S.	When I help, I always get to buy something I want.					
T.	The shopping gets taken care of much more quickly If two people do it.					
E.	It would make it easier on her if I helped.					

For what other reasons might you have done this (please write out)?

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5. You are very busy on washing your shirt. Your friend comes and asks you to check to see if she/he knows his/her Amharic vocabulary. Some one else comes into your living place. You say okay and help him/her.

If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
S.	I would be happy if the other person thought that I was a good friend.					
O.	I wanted to show that person that it is good to be always ready to help					
E.	My friend would be happy if he/she knows well on how to read Amharic Vocabulary.					
T.	I thought that my friend would concentrate more if some one else were there.					
H.	My friend is quieter and I am not so nervous when someone else is around.					
C.	I thought that this person would think that this was the right thing to do.					

For what other reasons might you have done this (please write out)?

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7. One of your friend wants to go and buy bread. On the way' to the bread store the friends money accidentally falls into a big hole. You help lift up the ladder, which is very heavy, so that your friend can get the money out.

If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
O.	If one doesn't help others when they' have small problems then one won't help when it's really important either.					
T.	The ladder was too heavy for one person to lift. If we wouldn't have lifted it together, the money would have been lost.					
E.	My friend would be very unhappy if he or she couldn't buy bread.					
S.	If I wouldn't have helped, I would never have been able to ask the bread to eat my friend wanted to buy.					
H.	It was a chance to really use my muscles					
C.	My friend would certainly have helped me if I face this problem. Therefore, I couldn't have just walked by without giving any help.					

For what other reasons might you have done this (please write out)?

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8. A certain individuals' vehicle won't start again. He asks you if you help him to push-start the bus. Somebody also is walking by on the other side of the street at the same time. You helped him. If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

		Not at all	Probably not	Perhaps	Most probably	Quite surely
S.	If I helped him now, may be I could have got service one day.					
E.	I'm sure the man would be quite unhappy if he couldn't managed it					
T.	The bus was too difficult for one person to push, If I would not have push it together, the bus would not have been start.					
C.	The other person would certainly have helped. I couldn't have just walked by with out giving any help.					
H.	The bus was clean so my hands wouldn't get dirty.					
O.	I thought that the man must be pretty up set about not managing on his own.					

For what other reasons might you have done this (please write out?)

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11. It's a nice day. On Saturday morning, you go to visit a friend. The friend is helping his or her other friends to clean up their living place. Because it's to take some time before they get done, you decided to help your friend clean up.

If you would have done this, what could have been some of the reasons for your behavior?

*This reason applies to me:*

After sitting all in the morning:

		Not at all	Probably not	Perhaps	Most probably	Quite surely
H.	I thought it would do me good to do some work and get moving again.					
S.	I remembered that I still had to clean up our place and figured that then my friend Would help me too.					
E.	It would make it easier for my friend and his colleagues					
T.	Because I know that if I helped, the work would get done more quickly.					
O.	I take it for granted that friends help each other. If they didn't, they wouldn't really be friends.					
C.	Since everybody was pitching in, I didn't want to just sit there and do nothing.					

For what other reasons might you have done this (please write out)?

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**አዲስ አበባ ዩኒቨርሲቲ**  
**በድህረ ምረቃ ትምህርት ኘርግራም**  
**የሳይክሎጂ ትምህርት ክፍል**

የዚህ መጠይቅ አላማ ከቤተሰብ ጋር በቤት ውስጥ፣ በህፃናት ማሳደጊያዎችና በጉዳና ላይ የሚኖሩ ልጆች ሌሎችን ለመርዳት የሚያሳዩትን ባህሪያት ለማነፃፀር የተዘጋጀ ነው። የዚህ ጥናት ውጤት ፖሊሲ አውጪዎችና በጉዳና ላይ ድርጅቶች አካባቢያዊ ሁኔታዎች ሌሎችን የመርዳት ባህሪ ላይ የሚያመጣውን ተፅዕኖ ተረድተው ፖሊሲያቸውንና ኘርግራማቸውን እንዲያስተካክሉ ሊጠቅማቸው ይችላል። ስለዚህም የጥናቱ ውጤት እያንዳንዱን ጥያቄ ለመመለስ በምታደርጉት ጥንቃቄ ላይ በከፍተኛ ደረጃ የተመሰረተ ነው። በጥናቱ ውስጥ በግዳጅ እንድትሳተፉ ባትደረጉም ደስተኛ ሁኔታዎች እያንዳንዱን ጥያቄ በትዕግስት እንድትመልሱልኝ በትህትና እጠይቃለሁ።

- ማሳሰቢያ 1. ስማችሁን ስለማትፅፉ ግላዊ መረጃችሁን ማንም ሊያውቀው አይችልም
2. መጠይቆቹ ሁለት ክፍሎች ሲኖራቸው እነዚህም፡
- ሀ. ግላዊ መረጃና
  - ለ. ሌሎችን በመርዳት ላይ ያተኮሩ ናቸው።
3. እያንዳንዱ ክፍል የራሱ መመሪያ ያለው ሲሆን ጠያቂው በዝርዝር ያብራራዋል።

ጊዜያችሁን ሰውታችሁ ለምታደርጉልኝ ትብብር ሁሉ ከልብ አመሰግናለሁ።

ሀ. ግላዊ መረጃ

ትዕዛዝ:- ከዚህ በታች ያሉ ጥያቄዎች ግላዊ መረጃ ለማግኘት የተዘጋጁ ሆነው እያንዳንዱ ጥያቄ ምርጫ ወይም ባዶ በታ ያለው ሲሆን በመረጥከው/ሽው ላይ የ ፍ✓ን ምልክት እንድታደርጉና በባዶ በታዎቹ ላይ ደግሞ አስፈላጊውን መልስ እንድትሞላ/ሞይ በትህትና እጠይቃለሁ።

ለሁሉም ተጠያቂዎች:

- 1. ያታ ሀ. ወንድ  ለ. ሴት
- 2. ዕድሜ \_\_\_\_\_
- 3. ሀይማኖት ሀ. ኦርቶዶክስ  ለ. ሙስሊም  ሐ. ኻርቴስታንት   
 መ. ካቶሊክ  ሠ. ሌሎች

ከቤተሰብ ጋር ለሚኖሩ ልጆች ብቻ:

- 4. እህት አለህ/ሽ? ሀ. አዎ  ለ. የለኝም
- 5. ወንድም አለህ /ሽ/ ? ሀ አዎ  ለ. የለኝም
- 6. በቤት ውስጥ ስንት ሰዎች ሆናችሁ ነው የምትኖሩት? ሀ.ከ1-4  ለ. ከ5-7   
 ሐ.ከ7 በላይ
- 7. በቤተሰብህ /ሽ/ ውስጥ በስንተኛ ደረጃ ላይ ነው የተወለድከው/ሽው/?  
 ሀ. አንደኛ  ለ. መጨረሻ  ሐ. ሌላ
- 8. ወላጅ እናትህ/ሽ/ ከአንተ/ቺ/ ጋር አብረው ይኖራሉ?  
 ሀ. አዎ  ለ. አይኖሩም
- 9. አባትህ/ሽ/ እና እናትህ/ሽ/ አብረው ይኖራሉ?  
 ሀ. አዎ  ለ. አይኖሩም
- 10. ጥፋት በምታጠፋበት/ፊበት/ ጊዜ አባትህ/ሽ/ ምን አይነት እርምጃ በአንተ/ቺ/ ላይ ይወስዳሉ?
- 11. ጥፋት በምታጠፋበት/ፊበት/ ጊዜ እናትህ/ሽ/ ምን አይነት እርምጃ በአንተ/ቺ/ ላይ ይወስዳሉ?
- 12. ጥፋት በምታጠፋበት/ፊበት/ ጊዜ ወንድምህ/ሽ በአንተ/ቺ ላይ ምን አይነት እርምጃ ይወስዳሉ?
- 13. ጥፋት በምታጠፋበት/ፊበት ጊዜ እህትህ/ሽ በአንተ/ቺ ላይ ምን አይነት እርምጃ ይወስዳሉ?
- 14. ጥፋት በምታጠፋበት/ፊበት ጊዜ ዘመድህ/ሽ በአንተ/ቺ ላይ ምን አይነት እርምጃ ይወስዳሉ?
- 15. ጥፋት በምታጠፋበት/ፊበት ጊዜ አሳዳጊህ/ሽ በአንተ/ቺ ላይ ምን አይነት እርምጃ ይወስዳሉ?

በህፃናት ማሳደጊያ ውስጥ ለሚኖሩ ብቻ:

- 16. ጥፋት በምታጠፋበት/ፊበት/ ጊዜ በአንተ/ቺ ላይ አሳዳጊህ/ሽ/ ምን አይነት እርምጃ ይወስዳሉ?

በጉዳና ላይ ለሚኖሩ ልጆች ብቻ:

- 17. ጥፋት በምታጠፋበት/ፊበት/ ጊዜ በአንተ/ቺ ላይ ፖሊሶች ምን አይነት እርምጃ ይወስዳሉ?
- 18. ማህበረሰቡ ለጉዳና ተዳዳሪዎች ምን አይነት አመለካከት አለው ብለህ/ሽ/ ታስባለህ/ሽ/?

ለ. የሰዎች ሌሎችን የመርዳት ባህሪያትን ለመገንዘብ የተዘጋጀ መጠይቅ፡- በእያንዳንዱ ገፅ ራሥጌ ላይ 11 ትዕይንቶች ተቀምጠዋል። በእያንዳንዱ ተዕይንት ሥር ስድስት ድርጊቶች በተሰበጠረ መልኩ ተቀምጠዋል። ስለዚህ በእያንዳንዱ ድርጊቶች ሥር ከተዘረዘሩት 5 የደረጃ መጠኖች ውስጥ የአንተ/ትን ምክንያት የሚገልፀውን በመለየት የ«✓» ምልክት አስቀምጥ/ጭ/።

1. የገበያ አካባቢ ነው ያለኸው/ሽው/። በአካል ጉዳተኛ መንቀሳቀሻ ወንበር /ሁይልቸር/ የሚሄድ ሰው ደረጃዎችን ለመውጣት ሲታገል ታያለህ/ሽ/። ሌላው ሰው በአጠገብህ እያለፈ ነበር። አካል ጉዳተኛውን ደረጃውን እንዲወጣ ረዳኸው።

ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል? የሚከተለው ምክንያት ምክንያቱ ይሆን ነበር።

	በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
ኤች.	ባለሁልይቸሩን ሰው ወደ ላይ ለማንሳት ብቻዬን ከምፍጨረጨር ሌላ ሰው ሊረዳኝ ስለመጣ ደስ ብሎኝ ነበር።				
ቲ.	ሌላም ሰው ሊረዳው ስለሚችልና በሁልይቸር የሚሄድን ሰው ወደላይ ለማንሳት ለሁለት ሰዎች ቀላል ስለሆነ ነው።				
ኤስ.	አካል ጉዳተኛው ሰው እንዴት ችግሩን እንደፈታሁለት በማየቱ ኩራት ይሰማኛል ብዬ ስላሰብኩ ነበር።				
ሲ.	ሌሎች ሰዎች መርዳት እንዳለብኝ ይጠብቁ ስለነበር ነው።				
ኢ.	አካል ጉዳተኛው ደረጃውን ሳይወጣ ቢቀር ኖሮ ይበሳጭ ነበር።				
ኦ.	ይህ ሰው ምን ቢያስብ ጉዳዩ አይደለም፤ ሌሎችንም ስረዳ እንዲሁ ስለ ሰው አልጨነቅም።				

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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3. ብስክሌት ለማሽከርከር ወደ ጓደኛህ/ሽ ቤት እያመራህ/ሽ ነው አንድ የምታውቀው /ቂው/ ልጅ የስብክሌቱ ጎማ ቡኮ ሆኖበት ታያለህ/ሽ። ይህ ልጅ የጎማው ከለመንደሪ /የብስክሌቱ ጎማ ውስጥ ያለው ስስ ፕላስቲክ/ ተንፍሶበታል። አንተም/ቺም ልጁን ረዳሽው/ሽው እንበል። ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል? የሚከተለው ምክንያት ምክንያቱ ይሆን ነበር።

	በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
አ.	ልጁ ብስክሌቱን ሳያሽከረከር ቢቀር ደስተኛ አይሆንም ብዬ ስላሰብኩ ነበር።				
ኤ.ስ.	የልጁ ብስክሌት ጥሩ ልትሆን ስለምትችልና ሌላ ቀን እኔንም እንዳሽከረከር ይፈቅድልኛል ብዬ ስላሰብኩ ነበር።				
አ.	ልጁ ጎማውን ማስተካከል ባለመቻሉ ይከፋዋል ብዬ ስላሰብኩ ነበር።				
ኤ.ች.	የረዳሁት ብስክሌቱ ንፁህ ስለነበር እጅን ያቆሽሻል ብዬ ባለመፍራቴ ነበር።				
ቲ.	ተጋግዘን ብንሰራው የተሻለ ነው ብዬ ስለማስብ ነበር።				
ሲ.	አብዛኞቹ ጓደኞቹ በእንዲህ ያለ ጊዜ ርዳታ እንደሚያደርጉ ስለማውቅ ነው።				

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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4. አንድ ቀን ከቀትር በኋላ ከጓደኛህ/ሽ/ ጋር እግር ኳስ ትጫወታለህ/ቻለሽ:: አንድ የምታውቃቸው/ቂያቸው/ ጠና ያሉ ሴትዮ እቃ ለመግዛት ወደ ገበያ መሄድ ፈልገዋል:: ዘምቢላቸውን በመሸከም ልትረዳቸው/ጻፋቸው/ አብረሃቸው/ሻቸው/ ሄድክ/ሽ:: ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል?

		በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
ኤች.	በገበያው ውስጥ ያለውን ውጣ ውረድ እወደው ስለነበር ነው					
አ.	ሴትዮዎ በየሳምንቱ ወደ ገበያ ሲሄዱ ልረዳቸው እንደሚገባኝ ይሰማኝ ነበር::					
ሲ.	ሌሎች ጓደኞቼ ጠና ያሉ ሰዎችን በገበያ ላይ እንደሚያግዙ ስለማውቅ ነበር::					
ኤስ.	ጠና ያሉ ሰዎች ስረዳ ሁልጊዜ ለራሴ የምፈልገውን ለመግዛት እችል ነበር::					
ቲ.	ሁለታችንም በጋራ ብንገበይ በፍጥነት እንጨርሳለን ብዬ ስለማስብ ነበር::					
ኢ.	ብረዳቸው የመገብዮቱ ስራ የቀለለ ይሆንላቸዋል ብዬ ስላሰብኩ ነበር::					

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ::

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5. አንድ ጓደኛህ/ሽ/ የአማርኛ ቃላት እውቀቱ/ዋ ምን ያህል እንደሆነ እንድታይለት/ላት ሊጠይቀህ/ሽ/ መጥቷል/ታለች/። አንተ/ች/ ደግሞ ሽሚዝህን/ሽን/ በማጠብ ላይ ነህ/ነሽ/። ሌላ ተጨማሪ ሰው እንዲሁ መጥቷል/መጥታለች/። ጓደኛህን/ሽን/ እሺ ብለህ/ሽ/ ረዳኸው/ሽው/።  
ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል?

የሚከተለው ምክንያት ምክንያቱ ይሆን ነበር።

	በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
አ.ሰ.	ሌላው ሰው ምን ያህል ጥሩ ጓደኛ መሆኔን ቢያውቅልኝ ደስ ስለሚለኝ ነበር።				
አ.	ሌሎች ለመርዳት ዝግጁ ሆኖ መጠበቅ ምን ያህል ጥሩ እንደሆነ ለሌላው ሰው ለማሳየት ስለፈለኩ ነው።				
አ.	ጓደኛዬ የአማርኛ ቃላት ማንበብ ቢያውቅ/ውቅ ደስ ሊለው/ላት ይችላል ብዬ ስለማስብ ነበር።				
ቲ.	አንድ ሌላ ሰው አጠገቡ/ቧ ቢኖር ለቃላት ትምህርቱ የበለጠ ትኩረት ያደርጋል/ለች ብዬ ስላሰብኩ ነው።				
ኤች.	ሌላ ሰው ባለበት ቦታ ጓደኛዬ ረጋ ያለ ስለሚሆን እኔም አልበሳጭም ብዬ ስለማስብ ነበር።				
ሲ.	ሌላው ሰው ይህ ድርጊት ትክክለኛ መሆኑን ይገነዘባል ብዬ ስላሰብኩ ነው።				

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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6. በመጨመሪያ ሜዳው ላይ ነህ/ሽ/ እንበል። የቅርብ ጓደኛህ/ሽ/ የሆነ/ች አንድ/ዲት ልጅ እቃው/ዋ ጠፍቶበት/ባት በማፈላለግ አገዝከው/ካት።

ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል? የሚከተለው ምክንያት ምክንያቱ ይሆን ነበር።

		በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
ሲ.	ሌሎች ልጆች ሲያፋልጓት ሳይ እኔም ረዳኋት።					
ኦ.	ጓደኛዬ የጠፋባትን እቃ ስትፈልግ ሳይ እኔም ማፋለግ እንዳለብኝ ተሰማኝ					
ቴ.	ሁለታችንም በጋራ እቃውን ብናፈላልግ በቀላሉ ይገኛል ብዬ ስላሰብኩ ነበር።					
ኤ.ሰ.	በፍለጋው ብረዳት አንድ ነገር አገኛለሁ ብዬ ስላሰብኩ					
ኤ.ሾ.	በፍለጋው በምረዳበት ወቅት ልጅቱን ቀረብ ብዬ እንዳያት የሚረዳኝ አጋጣሚ ስላገኘሁ ነው።					
ኤ.	እቃውን ሳላፈላልጋት ብቀር ጓደኛዬን ይከፋዋል/ታል ብዬ ስላሰብኩ ነበር።					

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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10. ከመስቀለኛ መንገድ ላይ ትደርሳለህ/ሽ/ እንበል። አንድ አይነት ለመሆን ምንም ያልቀራት ሴት መስቀለኛውን መንገድ ለማቋረጥ ስትሞከር ታያለህ/ሽ/። የማየት ችግር እንዳለባት የምትረዳው/ጂው ደግሞ በያዘችው የአይነት ስውራን ምርኩዝ ነው። ሴትየዋ መንገዱን ለማቋረጥ ፈራ ተባ ትላለች። ይሁን እንጂ ረዳሃትና/ሻትና/ ተሻገረች እንበል።

ይህን አድርገህ/ሽ/ ቢሆን ኖሮ ለዚህ ተግባርህ/ሽ/ የምትሰጠው/ጭው/ ምክንያት ምን ይሆን ኖሯል? የሚከተለው ምክንያት ምክንያቱ ይሆን ነበር።

	በጭራሽ	ላይሆንም ይችላል	ምንአልባት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
ቴ.	ባልረዳት ኖሮ መንገዱን ለመሻገር ባልቻለች ነበር።				
ሲ.	ሌሎች መንገዱን የሚያቋርጡ ሰዎች ሲረዱት ላይ እኔም ረዳኋት።				
ኤች.	የአካል ስንኩሳንን አካል መንካት ስለምፈልግ ነበር።				
ኤስ.	ይህን አይነት ድርጊት መሥራት ስለሚያረካኝ ነው።				
ኦ.	ባልረዳት ኖሮ ሴተየዋ እረዳት በማጣቷ የተነሳ ትበላጭ ነበር።				
ሊ.	አንዳች እርዳታ ብታገኝ እጩይታ ታገኛለች ብዬ ስለማስብ ነበር።				

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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11. ደስ የሚል ቀን ነው። ቅዳሜ ጧት ዓደኛህን/ሽን/ ለመጠየቅ ትሄዳለህ/ሽ። ዓደኛህ/ሽ/ ደግሞ ዓደኞቹን/ቿን/ የመኖሪያ ሥፍራቸውን ለማጽዳት በሚሰሩበት ሥራ እያገዛቸው /ዘቻቸው/ ነው። የማጽዳቱን ስራ ለመጨረስ ትንሽ ጊዜ እንደሚወስድ ስለተረዳህ/ሽ/ በዚህ ሥራ ዓደኛህን/ሽን/ ለማገዝ ትወስናለህ/ኛለሽ።

	በጭራሽ	ላይሆንም ይችላል	ምንክልላት ሊሆን ይችላል	እውነትም ሊሆን ይችላል	ያለጥርጥር ይሆናል
ኤ.ች.	ጥቂት ስራ ብስራ ይሻለኛል፣ ለመንቀሳቀስም ይረዳኛል ብዬ ስላሰብኩ ነው።				
ኤ.ሰ.	መኖሪያችንን ማጽዳት እንዳለብን ዓደኛዬም ሊረዳኝ እንደሚችል ስለገመትኩ ነው።				
ኢ.	ዓደኛዬን ባረዳው/ት ኖሮ ጥሩ ስሜት አይሰማውም/ትም ብዬ ስላሰብኩ ነው።				
ቴ.	ምክንያቱም እኔም ብረዳቸው ሥራው ቶሎ ሊያልቅ እንደሚችል አውቃለሁ።				
አ.	ዓደኛሞች መረዳዳታቸው የታወቀ መሆኑን ተረዳሁ፣ ካልተረዳዱ እውነተኛ ዓደኛሞች አይሆኑም።				
ሲ.	ሁላቸውም በሥራው ላይ እየተሳተፉ እኔ ያላንዳች ስራ ቁጭ ብዬ ማየት አልፈለግሁም ነበር።				

ሌላ ምክንያት ካለህ/ሽ እባክዎን ቀጥሎ ባለው ባዶ ቦታ ላይ አስፍር/ሪ።

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### Appendix C. Item Statistics:

	Mean	Std. Deviation	N
q1h1	2.8580	1.56713	169
q2t1	2.0592	1.31250	169
q3s1	2.8580	1.52868	169
q4c1	2.0355	1.40955	169
q5e1	2.1065	1.56236	169
q6o1	1.9586	1.52110	169
q21s2	2.7929	1.55025	169
q22e2	2.1243	1.55531	169
q23c2	2.3550	1.34230	169
q24t2	2.3905	1.41469	169
q25o2	2.3905	1.31888	169
q26h2	2.6864	1.58936	169
q31e3	1.9941	1.58676	169
q32s3	2.6154	1.55073	169
q33o3	2.2722	1.32170	169
q34h3	2.7219	1.58852	169
q35t3	2.3728	1.32178	169
q36c3	2.2781	1.29543	169
q41h4	2.4911	1.67303	169
q42o4	2.4260	1.33480	169
q43c4	2.2781	1.23907	169
q44s4	2.5385	1.60357	169
q45t4	2.2249	1.36158	169
q46e4	2.1657	1.57238	169
q51s5	2.8343	1.47471	169
q52o5	2.2485	1.41750	169
q53e5	2.1302	1.48231	169
q54t5	2.3077	1.36277	169
q55h5	2.6627	1.62893	169
q56c5	2.2426	1.31623	169
q61c6	2.1893	1.41829	169
q62o6	2.3491	1.35049	169
q63t6	2.5385	1.38013	169
q64s6	2.6627	1.61425	169
q65h6	2.5325	1.64764	169
q66e6	2.0947	1.46889	169
q71o7	2.0473	1.39220	169
q72t7	1.9408	1.40452	169
q73e7	1.9586	1.54440	169
q74s7	2.7929	1.52314	169
q75h7	2.7988	1.52198	169
q76c7	2.3787	1.26247	169

q81s8	2.8225	1.48940	169
q82e8	1.8521	1.52226	169
q83t8	2.1420	1.41966	169
q84c8	2.0296	1.44101	169
q85h8	2.6036	1.61915	169
q86o8	2.1834	1.34809	169
q91s9	2.6450	1.58245	169
q92h9	2.7633	1.54020	169
q93t9	2.1302	1.36088	169
q94o9	2.1716	1.39306	169
q95e9	1.9763	1.51953	169
q96c9	2.2130	1.34592	169
q101t10	2.0651	1.48461	169
q102c10	2.0888	1.34887	169
q103h10	2.4911	1.68720	169
q104s10	2.5444	1.55823	169
q105o10	2.3136	1.31017	169
q106e10	2.0888	1.47533	169
q111h11	2.6509	1.58190	169
q112s11	2.5503	1.53107	169
q113e11	2.0710	1.51412	169
q114t11	2.0296	1.31124	169
q115o11	2.2485	1.34864	169
q116c11	2.1775	1.36860	169

#### Appendix -D. Inter-scale Correlation Matrix

	hedonistic	Task	self	conformity	empathy	other
hedonistic	1.000	-.619	.954	-.599	-.812	-.802
task	-.619	1.000	-.599	.725	.765	.787
self	.954	-.599	1.000	-.587	-.777	-.780
conformity	-.599	.725	-.587	1.000	.649	.729
empathy	-.812	.765	-.777	.649	1.000	.864
other	-.802	.787	-.780	.729	.864	1.000

The covariance matrix is calculated and used in the analysis.

**Appendix E. Descriptive statistics on hedonistic oriented altruism by residential setting, sex and age:**

Residential setting	Sex	Age	Mean	Std. Deviation	N
SC	male	7-10	3.7071	.58525	9
		11-14	3.7980	.30416	9
		15-18	3.9256	.15113	11
		Total	3.8182	.37561	29
	female	7-10	3.3434	.71694	9
		11-14	3.3333	.94585	9
		15-18	3.5041	.33368	11
		Total	3.4013	.67004	29
	Total	7-10	3.5253	.66187	18
		11-14	3.5657	.72228	18
		15-18	3.7149	.33230	22
		Total	3.6097	.57798	58
IC	male	7-10	3.7000	.35352	10
		11-14	3.2545	.46513	10
		15-18	2.9899	.85937	9
		Total	3.3260	.63938	29
	female	7-10	2.7273	1.08331	9
		11-14	2.9669	.77489	11
		15-18	2.8182	.77406	9
		Total	2.8464	.85526	29
	Total	7-10	3.2392	.91273	19
		11-14	3.1039	.64749	21
		15-18	2.9040	.79832	18
		Total	3.0862	.78654	58
HC	male	7-10	.9621	.82364	12
		11-14	1.3896	1.06240	7
		15-18	1.5455	1.17754	10
		Total	1.2665	1.01259	29
	female	7-10	1.7980	1.00800	9
		11-14	1.4848	1.43391	12
		15-18	1.0568	.74798	8
		Total	1.4639	1.14949	29
	Total	7-10	1.3203	.97938	21
		11-14	1.4498	1.27866	19
		15-18	1.3283	1.01335	18
		Total	1.3652	1.07827	58
Total	male	7-10	2.6422	1.48990	31
		11-14	2.9406	1.16447	26
		15-18	2.8515	1.29371	30
		Total	2.8036	1.32241	87
	female	7-10	2.6229	1.11845	27
		11-14	2.5142	1.35345	32
		15-18	2.5844	1.19083	28
		Total	2.5705	1.21894	87
	Total	7-10	2.6332	1.31871	58
		11-14	2.7053	1.27935	58
		15-18	2.7226	1.24152	58
		Total	2.6870	1.27342	174

**Appendix F. Descriptive statistics on task-oriented altruism by residential setting, sex and age:**

Residential setting	sex	Age	Mean	Std. Deviation	N
SC	male	7-10	1.4747	.36584	9
		11-14	1.3939	.45907	9
		15-18	1.5455	.56187	11
		Total	1.4765	.46396	29
	female	7-10	2.1212	.65398	9
		11-14	2.5556	.60035	9
		15-18	2.2314	.51804	11
		Total	2.2978	.59509	29
	Total	7-10	1.7980	.61227	18
		11-14	1.9747	.79118	18
		15-18	1.8884	.63353	22
		Total	1.8871	.67179	58
IC	male	7-10	1.9182	.32764	10
		11-14	2.3273	.32127	10
		15-18	2.2727	.60644	9
		Total	2.1693	.45566	29
	female	7-10	2.1313	.29497	9
		11-14	1.8512	.56374	11
		15-18	2.2828	.23375	9
		Total	2.0721	.43421	29
	Total	7-10	2.0191	.32295	19
		11-14	2.0779	.51449	21
		15-18	2.2778	.44588	18
		Total	2.1207	.44386	58
HC	male	7-10	2.8788	.75994	12
		11-14	2.7792	.46903	7
		15-18	2.5545	.61576	10
		Total	2.7429	.64560	29
	female	7-10	2.4242	.68635	9
		11-14	2.4773	1.15587	12
		15-18	2.6477	.66705	8
		Total	2.5078	.88257	29
	Total	7-10	2.6840	.74779	21
		11-14	2.5885	.95508	19
		15-18	2.5960	.62146	18
		Total	2.6254	.77553	58
Total	male	7-10	2.1613	.80416	31
		11-14	2.1259	.69714	26
		15-18	2.1000	.72466	30
		Total	2.1296	.73798	87
	female	7-10	2.2256	.56905	27
		11-14	2.2841	.87859	32
		15-18	2.3669	.51395	28
		Total	2.2926	.67994	87
	Total	7-10	2.1912	.69936	58
		11-14	2.2132	.79955	58
		15-18	2.2288	.64062	58
		Total	2.2111	.71221	174

**Appendix G. Descriptive statistics on self-oriented altruism by residential setting, sex and age:**

Residential setting	sex	Age	Mean	Std. Deviation	N
SC	male	7-10	3.6970	.54356	9
		11-14	3.7576	.31162	9
		15-18	3.8512	.32339	11
		Total	3.7743	.39224	29
	female	7-10	3.3232	.58760	9
		11-14	3.1818	.70418	9
		15-18	3.4132	.46241	11
		Total	3.3135	.57114	29
	Total	7-10	3.5101	.58180	18
		11-14	3.4697	.60564	18
		15-18	3.6322	.44930	22
		Total	3.5439	.53836	58
	IC	male	7-10	3.7182	.40531
11-14			3.3636	.56854	10
15-18			3.0000	.80930	9
Total			3.3730	.65661	29
female		7-10	2.7172	.92648	9
		11-14	2.9421	.93532	11
		15-18	2.6970	.75241	9
		Total	2.7962	.85614	29
Total		7-10	3.2440	.85283	19
		11-14	3.1429	.79335	21
		15-18	2.8485	.77391	18
		Total	3.0846	.81023	58
HC		male	7-10	1.1288	.87236
	11-14		1.8312	.99921	7
	15-18		1.6091	1.31743	10
	Total		1.4639	1.07712	29
	female	7-10	1.8283	1.20899	9
		11-14	1.8182	1.27685	12
		15-18	1.2159	.85548	8
		Total	1.6552	1.14770	29
	Total	7-10	1.4286	1.06256	21
		11-14	1.8230	1.15290	19
		15-18	1.4343	1.12278	18
		Total	1.5596	1.10737	58
	Total	male	7-10	2.7097	1.42767
11-14			3.0874	1.01052	26
15-18			2.8485	1.29368	30
Total			2.8704	1.26330	87
female		7-10	2.6229	1.10069	27
		11-14	2.5881	1.16832	32
		15-18	2.5552	1.12906	28
		Total	2.5883	1.12216	87
Total		7-10	2.6693	1.27565	58
		11-14	2.8119	1.11936	58
		15-18	2.7069	1.21539	58
		Total	2.7294	1.19973	174

**Appendix H. Descriptive statistics on conformity oriented altruism by residential setting, sex and age:**

Residential setting	sex	Age	Mean	Std. Deviation	N
SC	male	7-10	1.7879	.39365	9
		11-14	1.4545	.46131	9
		15-18	1.5950	.54601	11
		Total	1.6113	.47914	29
	female	7-10	2.0000	.38030	9
		11-14	2.2727	.44768	9
		15-18	2.1901	.47317	11
		Total	2.1567	.43727	29
	Total	7-10	1.8939	.39101	18
		11-14	1.8636	.60964	18
		15-18	1.8926	.58422	22
		Total	1.8840	.53140	58
IC	male	7-10	1.7273	.24989	10
		11-14	1.9636	.40247	10
		15-18	2.0505	.28788	9
		Total	1.9091	.33928	29
	female	7-10	2.5455	.42882	9
		11-14	1.9339	.65314	11
		15-18	2.2626	.43467	9
		Total	2.2257	.57064	29
	Total	7-10	2.1148	.53769	19
		11-14	1.9481	.53518	21
		15-18	2.1566	.37393	18
		Total	2.0674	.49194	58
HC	male	7-10	3.0303	.57015	12
		11-14	2.6234	.46185	7
		15-18	2.3818	.57624	10
		Total	2.7085	.60370	29
	female	7-10	2.5960	.76481	9
		11-14	2.4167	1.16385	12
		15-18	2.8182	.63729	8
		Total	2.5831	.91023	29
	Total	7-10	2.8442	.67917	21
		11-14	2.4928	.95361	19
		15-18	2.5758	.62674	18
		Total	2.6458	.76813	58
Total	male	7-10	2.2493	.76023	31
		11-14	1.9650	.62672	26
		15-18	1.9939	.58476	30
		Total	2.0763	.66932	87
	female	7-10	2.3805	.59722	27
		11-14	2.2102	.84540	32
		15-18	2.3929	.56587	28
		Total	2.3218	.68800	87
	Total	7-10	2.3103	.68646	58
		11-14	2.1003	.75901	58
		15-18	2.1865	.60504	58
		Total	2.1991	.68787	174

**Appendix I. Descriptive statistics on empathetic oriented altruism by residential setting, sex and age:**

Residential setting	Sex	Age	Mean	Std. Deviation	N
SC	male	7-10	.5657	.55999	9
		11-14	.6465	.87957	9
		15-18	.4380	.38957	11
		Total	.5423	.61055	29
	female	7-10	1.6566	.72838	9
		11-14	1.7374	.68702	9
		15-18	1.2893	.61094	11
		Total	1.5423	.67921	29
	Total	7-10	1.1111	.84395	18
		11-14	1.1919	.94932	18
		15-18	.8636	.66316	22
		Total	1.0423	.81494	58
IC	male	7-10	1.9636	.37654	10
		11-14	2.2455	.25731	10
		15-18	2.1010	.32918	9
		Total	2.1034	.33466	29
	female	7-10	2.2121	.43598	9
		11-14	1.5620	1.02354	11
		15-18	1.9293	.62618	9
		Total	1.8777	.78515	29
	Total	7-10	2.0813	.41427	19
		11-14	1.8874	.82216	21
		15-18	2.0152	.49327	18
		Total	1.9906	.60893	58
HC	male	7-10	3.3409	.37807	12
		11-14	3.1169	.64221	7
		15-18	3.0364	.77637	10
		Total	3.1818	.59811	29
	female	7-10	2.9091	1.02550	9
		11-14	2.8939	1.46527	12
		15-18	3.2614	.50834	8
		Total	3.0000	1.11155	29
	Total	7-10	3.1558	.73975	21
		11-14	2.9761	1.20903	19
		15-18	3.1364	.66238	18
		Total	3.0909	.88942	58
Total	male	7-10	2.0909	1.22755	31
		11-14	1.9266	1.18224	26
		15-18	1.8030	1.23617	30
		Total	1.9425	1.20916	87
	female	7-10	2.2593	.90443	27
		11-14	2.1108	1.26742	32
		15-18	2.0584	.99838	28
		Total	2.1400	1.07062	87
	Total	7-10	2.1693	1.08323	58
		11-14	2.0282	1.22278	58
		15-18	1.9263	1.12525	58
		Total	2.0413	1.14298	174

**Appendix K.Descriptive statistics on hedonistic oriented altruism among home reared children by Birth order, family size, and maternal presence:**

Birth order	Family size	Maternal presence	Mean	Std. Deviation	N	
First born	1-4	No	2.2955	1.22503	4	
		Separated	1.3864	.66131	4	
		Total	1.8409	1.03281	8	
	5-7	No	1.7013	1.37742	7	
		Separated	1.1136	.81710	8	
		Total	1.3879	1.11312	15	
	Total	No	1.9174	1.29555	11	
		Separated	1.2045	.74978	12	
		Total	1.5455	1.08469	23	
Last born	1-4	No	2.4545	.	1	
		Separated	1.4848	.69433	3	
		Total	1.7273	.74597	4	
	5-7	No	2.9455	.44814	5	
		Separated	.8523	.50950	8	
		Yes	.7273	.	1	
		Total	1.5909	1.14034	14	
	>7	Separated	.3636	.	1	
		Total	.3636	.	1	
	Total	No	2.8636	.44814	6	
		Separated	.9697	.60716	12	
		Yes	.7273	.	1	
		Total	1.5550	1.05753	19	
	Others	1-4	Separated	1.1364	.96338	6
			Total	1.1364	.96338	6
5-7		No	1.3636	1.83852	3	
		separated	.6000	.48362	5	
		Yes	.0909	.00000	2	
		Total	.7273	1.04359	10	
Total		No	1.3636	1.83852	3	
		separated	.8926	.79754	11	
		Yes	.0909	.00000	2	
		Total	.8807	1.00232	16	
Total	1-4	No	2.3273	1.06329	5	
		separated	1.2937	.77509	13	
		Total	1.5808	.95760	18	
	5-7	No	2.0485	1.34220	15	
		separated	.8918	.64258	21	
		Yes	.3030	.36740	3	
		Total	1.2914	1.13127	39	
	>7	separated	.3636	.	1	
		Total	.3636	.	1	
	Total	No	2.1182	1.25729	20	
		separated	1.0260	.71159	35	
		Yes	.3030	.36740	3	
		Total	1.3652	1.07827	58	

**Appendix L. Descriptive statistics on task oriented altruism among home-reared children by birth order, family size and maternal presence:**

Birth order	Family size	Maternal presence	Mean	Std. Deviation	N	
First born	1-4	No	2.1136	1.20690	4	
		Separated	2.4545	.33195	4	
		Total	2.2841	.83946	8	
	5-7	No	2.5065	.94016	7	
		Separated	2.8636	.65555	8	
		Total	2.6970	.79228	15	
	Total	No	2.3636	1.00330	11	
		Separated	2.7273	.58660	12	
		Total	2.5534	.81492	23	
Last born	1-4	No	3.3636	.	1	
		Separated	2.4545	.77673	3	
		Total	2.6818	.78027	4	
	5-7	No	2.1091	.50371	5	
		Separated	2.9205	.47966	8	
		Yes	1.9091	.	1	
		Total	2.5584	.62666	14	
	>7	Separated	3.4545	.	1	
		Total	3.4545	.	1	
	Total	No	2.3182	.68212	6	
		Separated	2.8485	.57930	12	
		Yes	1.9091	.	1	
		Total	2.6316	.65378	19	
	Others	1-4	Separated	2.2424	.71736	6
			Total	2.2424	.71736	6
5-7		No	2.7879	1.09971	3	
		Separated	2.8909	.93464	5	
		Yes	3.6364	.12856	2	
		Total	3.0091	.87769	10	
Total		No	2.7879	1.09971	3	
		Separated	2.5372	.84936	11	
		Yes	3.6364	.12856	2	
		Total	2.7216	.88356	16	
Total	1-4	No	2.3636	1.18531	5	
		Separated	2.3566	.59551	13	
		Total	2.3586	.76218	18	
	5-7	No	2.4303	.83140	15	
		Separated	2.8918	.63741	21	
		Yes	3.0606	1.00138	3	
		Total	2.7273	.76146	39	
	>7	Separated	3.4545	.	1	
		Total	3.4545	.	1	
	Total	No	2.4136	.89776	20	
		Separated	2.7091	.66979	35	
		Yes	3.0606	1.00138	3	
		Total	2.6254	.77553	58	

**Appendix N. Descriptive statistics on conformity oriented altruism among home-reared children by birth order, family size and maternal presence:**

Birth order	Family size	Maternal presence	Mean	Std. Deviation	N
firstborn	1-4	No	1.9091	1.14271	4
		Separated	2.0227	.37391	4
		Total	1.9659	.78945	8
	5-7	No	2.5714	1.20458	7
		Separated	2.8636	.45324	8
		Total	2.7273	.86449	15
	Total	No	2.3306	1.17218	11
		Separated	2.5833	.58334	12
		Total	2.4625	.90075	23
lastborn	1-4	No	2.8182	.	1
		Separated	2.9697	.18924	3
		Total	2.9318	.17209	4
	5-7	No	2.2545	.46087	5
		Separated	2.8409	.67813	8
		Yes	3.1818	.	1
		Total	2.6558	.64596	14
	>7	Separated	3.1818	.	1
		Total	3.1818	.	1
	Total	No	2.3485	.47209	6
		Separated	2.9015	.55698	12
		Yes	3.1818	.	1
		Total	2.7416	.57517	19
others	1-4	Separated	2.3636	.53936	6
		Total	2.3636	.53936	6
	5-7	No	2.6061	1.24095	3
		Separated	3.0364	.36136	5
		Yes	3.7727	.19285	2
		Total	3.0545	.76565	10
	Total	No	2.6061	1.24095	3
		Separated	2.6694	.56667	11
		Yes	3.7727	.19285	2
		Total	2.7955	.75369	16
Total	1-4	No	2.0909	1.06987	5
		Separated	2.3986	.53979	13
		Total	2.3131	.70364	18
	5-7	No	2.4727	.96344	15
		Separated	2.8961	.51529	21
		Yes	3.5758	.36740	3
		Total	2.7855	.76388	39
	>7	Separated	3.1818	.	1
		Total	3.1818	.	1
	Total	No	2.3773	.97657	20
		Separated	2.7195	.56917	35
		Yes	3.5758	.36740	3
		Total	2.6458	.76813	58

**Appendix O. Descriptive statistics on empathetic orientation by birth order, family size, and maternal presence;**

Birth order	Family size	Maternal presence	Mean	Std. Deviation	N
firstborn	1-4	No	2.4545	1.68775	4
		Separated	3.1591	.52157	4
		Total	2.8068	1.21622	8
	5-7	No	2.7143	1.11764	7
		Separated	3.1023	.80939	8
		Total	2.9212	.95028	15
	Total	No	2.6198	1.27326	11
		Separated	3.1212	.70133	12
		Total	2.8814	1.02392	23
lastborn	1-4	No	3.2727	.	1
		Separated	3.3636	.72157	3
		Total	3.3409	.59091	4
	5-7	No	2.4242	.62633	6
		Separated	3.6465	.22473	9
		Total	3.1576	.74370	15
	Total	No	2.5455	.65555	7
		Separated	3.5758	.38439	12
		Total	3.1962	.70305	19
others	1-4	Separated	3.0152	1.00645	6
		Total	3.0152	1.00645	6
		No	3.0000	1.42875	3
	5-7	Separated	3.5974	.38874	7
		Total	3.4182	.79853	10
		No	3.0000	1.42875	3
	Total	Separated	3.3287	.76740	13
		Total	3.2670	.87227	16
		No	3.0000	1.42875	3
Total	1-4	No	2.6182	1.50673	5
		Separated	3.1399	.77283	13
		Total	2.9949	1.00677	18
	5-7	No	2.6591	.97433	16
		Separated	3.4508	.56581	24
		Total	3.1341	.84154	40
	Total	No	2.6494	1.07998	21
		Separated	3.3415	.65289	37
		Total	3.0909	.88942	58

**Appendix P. Descriptive statistics on others-orientation among home-reared children by birth order, family size, and maternal presence or absence:**

Birth order	Family size	Maternal presence	Mean	Std. Deviation	N
First born	1-4	No	2.2500	1.43236	4
		Separate	2.6818	.52748	4
		Total	2.4659	1.02557	8
	5-7	No	2.5974	1.13407	7
		Separated	2.9886	.76899	8
		Total	2.8061	.94217	15
	Total	No	2.4711	1.19075	11
		Separated	2.8864	.68922	12
		Total	2.6877	.96280	23
Last born	1-4	No	3.4545	.	1
		Separated	2.9394	.57735	3
		Total	3.0682	.53718	4
	5-7	No	2.3455	.85377	5
		Separated	3.4091	.34360	8
		Yes	3.4545	.	1
		Total	3.0325	.75524	14
	>7	Separated	3.9091	.	1
		Total	3.9091	.	1
	Total	No	2.5303	.88778	6
		Separated	3.3333	.46084	12
		Yes	3.4545	.	1
Total		3.0861	.70709	19	
Others	1-4	Separated	2.8030	.86706	6
		Total	2.8030	.86706	6
	5-7	No	2.9091	1.51303	3
		Separated	3.3455	.27574	5
		Yes	3.9545	.06428	2
		Total	3.3364	.82994	10
	Total	No	2.9091	1.51303	3
		Separated	3.0496	.69753	11
		Yes	3.9545	.06428	2
		Total	3.1364	.85731	16
Total	1-4	No	2.4909	1.35238	5
		Separated	2.7972	.66923	13
		Total	2.7121	.87545	18
	5-7	No	2.5758	1.06277	15
		Separated	3.2338	.55041	21
		Yes	3.7879	.29223	3
	>7	Total	3.0233	.85426	39
		Separated	3.9091	.	1
		Total	3.9091	.	1
	Total	No	2.5545	1.10395	20
		Separated	3.0909	.63368	35
		Yes	3.7879	.29223	3
		Total	2.9420	.86758	58

## **Declaration**

I, under signed, declare that this thesis is my original work and that all sources of material used for this thesis have been duly acknowledged.

**Name of the student:** \_\_\_\_\_

**Signature** \_\_\_\_\_

**Date of submission** \_\_\_\_\_

I under signed, declare that this thesis has been submitted for examination with my approval as a university advisor.

**Name:** \_\_\_\_\_

**Signature** \_\_\_\_\_

**Date** \_\_\_\_\_