The effect Adler’s Birth Order has on self-esteem, conscientiousness, openness and relationships

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I would also like to thank the lecturers who have helped us throughout the year in guiding us in completing our thesis, and to Margaret Walsh who was my lecturer for the final year project module who was there to answer any questions if needed in class.

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The effect Adler’s Birth order has on Self Esteem, Conscientiousness, Openness and Relationships.

Abstract

This study aims to investigate the effect that Adler’s theory on one’s birth order has on self-esteem, conscientiousness, openness and relationships. A sample of 109 participants (male = 31, female = 78) who fell into one of the five categories of birth order – oldest child, middle child, youngest child, only child and other (twins etc.). Each participant was asked to complete a survey and their results were examined using an ANOVA and were compared to establish any significant difference among the birth position and each of the variables. Results indicated that participants of different birth positions did not differ significantly in terms of their self-esteem or personality traits conscientiousness and openness, but did however show a variation in their relationship attachment style towards others.
Introduction

Albert Adler was one of the first theorists to conduct studies on the concept of birth order and the effects this concept had on one’s development. People are surprised that children in the same family may behave in different ways even though they are born and raised into the same family and environment. Although siblings share all of these environmental factors, there is one thing that is not possible to share with a sibling, and that is their birth order (Dixoon, Reyes, Leppert, & Pappas, 2008). As well as behaviour they also differ in many other ways such as personality characteristics (Michalski & Shackelfold, 2002) and intelligence (Boomsma et al., 2008) which is what makes a child a unique individual within the family. In his book “Understanding Human Nature” (1918) Adler indicated that a child’s personality was based heavily on the order that child was in the family, as parents were incline to treat children differently according to the order in which they were born into the family. From this he identified four birth order personalities- the oldest child, the youngest child, the middle child and the only child, with each birth order showing different personality traits. Ha & Tam et al. (2013) have distinguished how it is these differences between siblings that have developed great interest to researchers over the last few years.

As cited in 2013 in ‘Relationships of birth order, parent-child relationship, personality, and academic performance’, Steelman (1985) defines birth order as ‘a person’s rank by age among his or her siblings’. It plays such an important role in an individual’s life as it is the first social system a child is exposed to. There have been many studies conducted on birth order triggering theorists, such as Ernst and Angst, to believe that a lot of these birth order studies are too confusing and poorly conducted causing a number of researchers to minimize the importance of birth order in their studies (Eckstein, et al., 2010). However, there is still a great curiosity by many other researchers who are interested in discovering more about the different effects caused by the birth order. This study concentrates on the
effect one’s birth order in the family has on their self-esteem, conscientiousness, openness and future relationships with others. Although there have been individual studies conducted involving the effect birth order has on personality traits, self-esteem and relationships, there has never been a study which concentrates on all of these effects together.

With the use of such studies as this it will help parents to understand as to why their children may differ slightly in ways. The eldest child may be always well mannered whereas the later born children may act up more, this essentially being because that they are just trying to gain attention from their parents, and not because they are just being bold for no reason. It can be frustrating for parents at times thinking that perhaps they did something wrong in bringing up any of their children, but it is essentially just a fact of life and happens automatically without any parent even realising they are doing it. There is no right or wrong way of parenting a child, but as long as all parents are aware of these simple things that effect who their children become later in life then they will be able to make adjustments to the best of their ability to ensure that all of their children feel just as important as the others.

**Birth order and Psychological characteristics**

Firstborn children are believed to be conscientious, responsible, high achievers, conformers, anxious and competitive (Sulloway, 1996). As they are the firstborn they are at the centre of attention to both parents, this is, of course, until another sibling is born. This tends to cause the firstborn to feel unloved as all the attention is now on the new baby, which Adler (1964) referred to this as being ‘dethroned’ (Ansbacher and Asbacher, 1956). Middle born children are believed to be mediators and have an even temper but have a more varied range of personality traits which are motivated by the fact they have never been the only child and have never had their parents devoted attention due to the fact they
have always had to share the spotlight with their older sibling. Although there may be sibling rivalry between them it is still not uncommon for the middle child to look to their older sibling for guidance throughout life. The youngest child is seen as the outgoing, entertainer of the family, but being the youngest the parents tend to ‘pamper’ them which Adler believed was the worst thing a parent could do as it leads the child to be more selfish, irresponsible and being dependent on others. Only children can have the same personality traits of the first born or youngest child. Adler (1964) understood that because only children have no other siblings to rival with for their parent’s attention means that both parents tend to spoil and pamper the child which could potentially cause interpersonal difficulties later in life.

**Birth Order and Personality**

Personality was the most common variable to show up on studies conducted on birth order, with the majority of these studies showing a varied result on different personality traits. Personality helps to explain why everyone acts differently in a similar situation (Weiten, 2007) which is why it attracts the most interest to those researching birth order as there is such a variety of personality traits within the one family. It was McCrae and Costa (1997) who came up with the ‘Five Factor Model’ suggesting that personality could be summarized into five different factors: conscientiousness, openness, agreeableness, extraversion and neuroticism. A study conducted by Sulloway, F.J. (1996) found that firstborn are more conscientious compared to younger siblings as the firstborn are more incline to reflect their parents’ personality characteristics whereas later-born children tend to develop attitudes and personality characteristics that differ to their parents and older sibling. Previous studies conducted on birth order and personality have varied significantly in their findings, such as one conducted by Ha et. al., (2011). The study was conducted on 30 firstborn, 30 middle children, 30 last born and 30 only children with the results showing
that firstborn and only child had the highest mean score for agreeableness but participants of birth order did not differ significantly for extraversion, openness and emotional stability. Another study looking at birth order and personality was by Paulhus et al. (1999) who had their participants vote who they thought was the most achieving and conscientious sibling in the family with the results showing firstborns were voted as the most high achieving and conscientious than later-born children.

**Birth Order and self-esteem**

Self-esteem is a term used to describe one’s overall sense of personal value and can involve a variety of beliefs such as how you feel about your own appearance, emotions and behaviours. The most frequently cited definition is Rosenberg’s (1965) who defined it as a favourable or unfavourable attitude towards one self. One who has high self-esteem will have positive characteristics such as happiness, strong coping skills and persistence when confronted by challenges, whereas those who have low self-esteem tend to have more negative characteristics such as unhappiness, depression and may be involved with substance abuse (Zitny, & Halama, 2011). Although self-esteem can be caused from external effects and not just the order in which you are born into the family, it is still generally the firstborn and only child that has the highest self-esteem, with self-esteem becoming lower for an individual the further they down the sibling line. This is mainly because the firstborn has no older sibling to surpass, whereas the middle child has to compete with the older sibling for the attention of the parents tends to make them feel insecure. Any sibling following the firstborn will look to the firstborn and feel they have to be more like them, such as grades at school, and if they do not obtain these similarities they
may become down in themselves and feel like they have failed causing them to have low self-esteem (Adler, 2011).

Zervas & Sherman (1994) conducted a survey on 91 college students about perceived parental favouritism and how it influenced their own self-esteem. The results showed that those who believed they were the favoured child in the family had higher levels of self-esteem and believed that one of the main reasons for this was because of their order of birth in the family. There was a massive 62% who believed that favouritism was based on the birth order which had a great impact on self-esteem (Zervas & Sherman, 1994 as cited by Maus, Z.A. et al. 2012). Another study conducted involving self-esteem was that by Maus, Z.A. (2012). The study was conducted on 100 voluntary undergraduate students attending a small university who were asked to complete a self-esteem evaluation. The results showed a significant difference between self-esteem and birth order: middle born children (M=50.03 SD=10.7) had significantly lower self-esteem than the firstborn and only child (M=56.23 SD=8.44), but did not have lower self-esteem than the youngest sibling (M=53.88 SD=7.0), F (3.96)=2.981, P=.035 (Maus, Z.A. et al. 2012). This confirms the hypothesis that birth order does affect one’s self-esteem.

**Birth Order and Relationships**

Birth order may not only have an effect on someone’s relationship with their parents or siblings, it could also have a great effect on future relationships with friends or a partner. Our style of attachment can affect relationships with family and friends as well as how we choose our future partners and at times how they also end. Relationships styles can be broke down onto four styles which are Secure, Fearful, Preoccupied and Dismissing. Secure style relates to how secure ones feels with others, such as how secure they feel with
their parents and will also feel the same with romantic partners with their relationships being more honest and open. Those with a more fearful style tend to fear being too close to or too distant from others, and in turn this usually means the person who they want to go to when they are feeling low is also the same person they are afraid to get too close to. Preoccupied style relates more to those who are anxious about their relationships and tend to be more insecure. This affects both family and romantic relationships in that they are constantly making themselves unnecessarily nervous about how their loved ones feel about them and at times feel they do not love them at all. Those with more of a dismissive style have a tendency to emotionally distance themselves from others, in particular romantic partners and are more inclined to ignore the importance of loved ones and easily detach themselves from them.

It has been proven by previous research that parent-child relationships differ among siblings, but as the number of siblings in a family increase, the parental investment decreases (Downey, 2011). A study conducted by Kilbride, Johnson and Streissguth (as cited in Taylor & Kogan, 1973) showed that regardless of social class the interaction between a mother and her first child was significantly more intense than that of the mother with the siblings who followed her firstborn. This can be justified by the fact the firstborn is the first baby the parents have had, and it is a whole new exciting experience for them, so as their family expands, the excitement of having a baby tends to die down as they have experienced it before. Another study on birth order, conducted by Kidwell (1981), claimed that middle born children experienced less positive relationship with their parents compared to the first born and the last born child. The relationship between parent and child can potentially have a great effect on a child, in particular the middle born child, as they are continuously fighting for their parent’s attention with their oldest and youngest sibling which can make them feel insecure and unloved (Adler, 1964). Research lead by
Buunk (1997) showed that later born children were found to be more jealous in romantic relationships than the first born child (McGuirk, & Pettijohn, 2008), this tends to be because the firstborn has already overcome jealousy as they had to deal with it ever since their younger sibling came along so jealousy is no longer an issue for them when it comes to romantic relationships.

**Rationale**

There have been a wide range of studies conducted on Adler’s birth order effect on many different variables, but there is no study that has combined looking at the effect birth order has on self-esteem, conscientiousness, openness and relationships. By conducting this study it should develop new material on just how heavily effected one is by the order in which they are born into the family and how it shapes the individual they become. Birth order is such a broad topic and can be used as the predictor variable for a wide variety of criterion variables such as the ones used in this particular study. As there has been no study yet to involve all of these criterion variables together it will be fascinating for participants involved to see how their birth order influences their self-esteem, conscientiousness, openness and relationships.

Although it is known that these factors tend to differ between the birth order in a family, it is not known if those in different families who share the same birth position will show the same results for each variable or if the results will vary. The results of this study will give a better understanding as to if it is the birth order or the particular family you are born into that influences your self-esteem, conscientiousness, openness and relationships. Such studies as this are important to those who are heavily effected by any of these variables, for example if they have low self-esteem, as it will show them just how common it is in everyone and they will know they are not on their own suffering from such conditions. This
study can relate to everyone as each person falls into one of the birth positions, rather it is the oldest child, middle child, youngest child or only child and will give the participant a better understanding of how they developed into the person that they have become. It is particularly interesting to see the results of twins, triplets, etc. as even though they were born the same day, there still tends to be the one who takes the firstborn role and this is exciting to see just how the results will vary among them.

Hypothesis

The aim of this study is to investigate Adler’s Birth order effect on self-esteem, conscientiousness, openness and relationships. For this particular study there are 4 hypotheses, which are as follows:

1. It is hypothesised that there will be a significant difference between conscientiousness and openness among the oldest child, middle child, youngest child and only child.

2. It is predicted there will be no significant difference in self-esteem between the oldest and only child, and that the middle born child will show the lowest levels of self-esteem compared to that of the oldest and only child.

3. It is hypothesised that there will be a significant difference between the oldest and the youngest child and their relationship style with others.

4. It is hypothesised that both the oldest child and only child will show similar results for each of the variables self-esteem, conscientiousness, openness and relationships.

All of these hypotheses will be tested using a one way ANOVA to find out if there is a significant relationship between these variables. For this particular study a quantitative design will be used as it attempts to establish the extent of the relationship between two or
more variables using statistical data. With the use of a t-test was use to look at the gender difference between the sample as there were twice as many females as there were males who took part in the study. A multiple regression is used as both the independent and dependent variables are scale and the outcome is to predict each criterion variable from several predictor variables. All the data will be collected and all hypothesis will be established.
Methodology

Participants
The research sample consisted of 109 participants (M = 31, F = 78) of an accessible population of both students attending DBS studying no particular course in the college, as well as the general public which random sampling was in effect with the use of an online survey accessed via a social media site such as facebook. There were both male and females used in the study. The use of random sampling meant that everyone in the population had an equal chance of being chosen. The reason for using both sample groups was to add variation to the study as members of the general public will be working, unemployed etc. and not all will be students attending college. It also offered more of an age difference as the majority of college students are in their early 20s. It was required that all participants were over the age of 18 as questionnaires such as the Relationship Quesstionaire (RSQ) was not suitable for those under 18.

Design
The research design was a quantitative correlation design as it attempts to establish the extent of the relationship between two or more variables using statistical data. A one way ANOVA was used as the outcome measure is scale. A t-test was used to look at the gender difference in the sample and as both the predictor and criterion variables are scale a multiple regression was used to predict one variable from several criterion variables. In this particular study it was the relationship between the predictor variable, birth order, and each of the criterion variables – self-esteem, conscientiousness, openness and relationships.
**Materials**

Before beginning the survey participants were reminded that their involvement in the survey was voluntary and they did not have to take part if they didn’t want to. Those willing to participate were given a self-administered pen and paper quantitative questionnaire which was composed of three questionnaires – The Big Five questionnaire, which was used to test the personality traits conscientiousness and openness, consisted of 44 characteristic type questions, such as ‘I am someone who enjoys others company’, in which the participant was asked to write a number from 1 to 5 to each statement indicating the level to which they agreed or disagreed with each particular statement. The Relationship Scale Questionnaire (RSQ) (Griffin & Bartholomew, 1994) was used to test relationships of the participant with others and consisted of 30 statements in which the participant was again asked to give a rating out of 5 as to how well each statement best describes their feelings about close relationships, 1 being ‘not at all like me’ and 5 being ‘very much like me’. The third and final questionnaire used was Rosenberg self-esteem scale (1965) to test self-esteem. This consisted of 10 questions which the participant was asked to circle as to rather they strongly agreed, agreed, disagreed or strongly disagreed with the list of statements based on their general feelings about others.

**Procedure**

With the permission from the lecturers at the beginning of class students in the classroom were asked for their participation in the study. They were briefed about the purpose of the study for a final year project and that it was looking at the effects that the birth order has on self-esteem, conscientiousness, openness and relationships. They were informed that their contribution was completely voluntary as nobody had to participate if they did not want to, however, once the survey was complete and submitted they were no longer able to
withdraw as all surveys were anonymous so would not be able to differentiate one
participants survey from the other. This information was also on the cover page of the
survey, along with additional information with contact details which can be used should
any participant have further questions or any problems regarding the study. The survey
took up to 15-20 minutes to complete and when all participants were finished they were
debriefed and given the opportunity to ask any questions. For those who were participating
as members of the general public using a social media site, the cover page with the
information was also available to them before they began. With the use of the online survey
it meant participants could complete the survey in their own time in the comfort of their
own home, and if they had any queries regarding the study the contact information was
provided for any such questions.
Results

Descriptive statistics

Table 1: Descriptive demographic characteristics of the Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>31</td>
<td>28.4</td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>71.6</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>71</td>
<td>65.1</td>
</tr>
<tr>
<td>26-40</td>
<td>35</td>
<td>32.1</td>
</tr>
<tr>
<td>41 and over</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Birth position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oldest child</td>
<td>21</td>
<td>19.3</td>
</tr>
<tr>
<td>Middle child</td>
<td>39</td>
<td>35.8</td>
</tr>
<tr>
<td>Youngest child</td>
<td>38</td>
<td>34.9</td>
</tr>
<tr>
<td>Only child</td>
<td>8</td>
<td>7.3</td>
</tr>
<tr>
<td>Other (twins etc.)</td>
<td>3</td>
<td>2.8</td>
</tr>
</tbody>
</table>

As shown in Table 1 there was quite a large difference between the amounts of participants in each category. There was over twice as many females (N = 78) as there were males (N = 31) out of a total of 109 participants, and in regards to the age category there was a minimal sample for the age group ‘41 and over’ (N = 3), with the vast majority of participants aged 18-25 (N = 71). The category for the middle child (N= 39) and youngest child (N = 38) contained the highest responses, with only child (N = 8) and other (N = 3) responding the least, as shown in Figure 1 below.
Results indicated that there was no significant difference in the mean scores between the oldest child, middle child, youngest child, only child and others in each of the variables, as shown in Table 2 which provides the descriptive statistics of psychological measures. It had been previously assumed that there would be a significant difference among each birth position in their results for the two personality traits, Conscientiousness and Openness, but the results found that they did not differ greatly at all between each birth positions mean score, with middle child (mean = 3.58, SD = .289) and only child (mean = 3.58, SD = .264) getting the same mean score for conscientiousness, and middle child (mean = 3.47, SD = .423) and other (mean = 3.47, SD = .586) getting moderately the same mean score for openness. Self-esteem was the most consistent variable throughout each birth position, with the middle children showing the highest mean score overall (mean = 21.71, SD = 4.96) and other (twins etc.) showing the lowest mean score (mean = 19.67, SD = 4.21) which had not been originally hypothesised.
Table 2: Descriptive statistics of psychological measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Oldest child</th>
<th>Middle child</th>
<th>Youngest child</th>
<th>Only Child</th>
<th>Other (Twins etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>3.54</td>
<td>.650</td>
<td>3.58</td>
<td>.289</td>
<td>3.49</td>
</tr>
<tr>
<td>Openness</td>
<td>3.51</td>
<td>.705</td>
<td>3.47</td>
<td>.423</td>
<td>3.55</td>
</tr>
<tr>
<td>Secure Scale</td>
<td>2.10</td>
<td>.265</td>
<td>2.17</td>
<td>.277</td>
<td>2.13</td>
</tr>
<tr>
<td>Fearful Scale</td>
<td>1.92</td>
<td>.421</td>
<td>1.93</td>
<td>.429</td>
<td>2.06</td>
</tr>
<tr>
<td>Preoccupied Scale</td>
<td>2.00</td>
<td>.362</td>
<td>2.04</td>
<td>.374</td>
<td>2.06</td>
</tr>
<tr>
<td>Dismissing Scale</td>
<td>2.11</td>
<td>.361</td>
<td>2.12</td>
<td>.324</td>
<td>2.04</td>
</tr>
</tbody>
</table>

In regards to relationship styles, the mean score was the highest for ‘secure scale’ throughout each birth position with other (mean = 2.27, SD = .115) scoring moderately higher to that of any other birth position, whereas scores were the lowest for the majority of birth positions for ‘fearful scale’ with oldest child having the lowest mean score of (mean = 1.92, SD = .421). This essentially means that overall most participants are secure in their relationships with others and do not tend to fear getting too close to their loved ones.

Inferential Statistics

With the use of an ANOVA to test each birth position – oldest child, middle child, youngest child, only child and other (twins etc.), results showed that there were in fact no significant results throughout each of the variables self-esteem, conscientiousness, openness and relationship attachment styles. As there were no significant differences between any of the birth positions and the personality traits, conscientiousness and openness, it meant that the first hypothesis was rejected, with middle child (mean = 3.58, SD = .289) and only child (mean =
3.58, SD = .264) achieving the highest mean score for conscientiousness and the youngest child (mean = 3.55, SD = .385) scoring the highest mean score for Openness.

Table 3: ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>df</th>
<th>mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-esteem</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>25.565</td>
<td>4</td>
<td>6.39</td>
<td>.353</td>
<td>.842</td>
</tr>
<tr>
<td>Within groups</td>
<td>1884.64</td>
<td>104</td>
<td>18.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1910.20</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Conscientiousness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.198</td>
<td>4</td>
<td>.050</td>
<td>.308</td>
<td>.872</td>
</tr>
<tr>
<td>Within groups</td>
<td>16.72</td>
<td>104</td>
<td>.161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16.92</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Openness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.195</td>
<td>4</td>
<td>.049</td>
<td>.216</td>
<td>.929</td>
</tr>
<tr>
<td>Within groups</td>
<td>23.51</td>
<td>104</td>
<td>.226</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23.71</td>
<td>108</td>
<td></td>
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<tr>
<td><strong>Secure Scale</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.265</td>
<td>4</td>
<td>.066</td>
<td>.828</td>
<td>.510</td>
</tr>
<tr>
<td>Within groups</td>
<td>8.31</td>
<td>104</td>
<td>.080</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.58</td>
<td>108</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Fearful Scale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.474</td>
<td>4</td>
<td>.118</td>
<td>.743</td>
<td>.565</td>
</tr>
<tr>
<td>Within groups</td>
<td>16.56</td>
<td>104</td>
<td>159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.03</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Preoccupied</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.138</td>
<td>4</td>
<td>.035</td>
<td>.298</td>
<td>.879</td>
</tr>
<tr>
<td>Within groups</td>
<td>12.07</td>
<td>104</td>
<td>.116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12.21</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dismissing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>.390</td>
<td>4</td>
<td>.098</td>
<td>1.001</td>
<td>.411</td>
</tr>
<tr>
<td>Within groups</td>
<td>10.14</td>
<td>104</td>
<td>.098</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10.53</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These results were both consistent, yet inconsistent, with previous research, as although it is consistent that results of studies such as this differ greatly between the birth position, it is inconsistent to see that the oldest child did not show the highest mean score for conscientiousness as has been the result in the majority of other studies like this one. Overall, participants tend to be more conscientious (F(4, 104) = .353, p = .842) than open (F(4, 104, .308, p = .872), as shown above in Table 3. As is consistent with other studies, the oldest child (mean = 20.76, SD = 3.28) and only child (mean = 20.75, SD = 4.20) scored roughly the same mean for self-esteem, meaning the first part of the second hypothesis was accepted. However, it was also assumed that the middle child would have relatively lower scores for self-esteem, but they in fact had the highest mean score (mean = 21.72, SD = 4.96), meaning the second part of second hypothesis was rejected.

Using the ANOVA again, the birth positions were each examined against their relationship style, and as hypothesised it was believed that there would be a significant difference between the oldest child and youngest child and their relationship style with others. Results showed that the oldest child (mean = 2.11, SD = .361) had a higher mean score than the youngest child (mean = 2.04, SD = .298) for the dismissing scale, but it was the youngest child who achieved a higher mean score for the other 3 relationship styles-secure, fearless and preoccupied. This was still consistent with previous studies as oldest child and youngest child were never the same mean score for any relationship style. Overall participants showed highest scores for the dismissing scale (F(4, 104) = 1.001, P = .411) with the lowest results from all participants being the preoccupied scale (F(4, 104) = .298, p = .879) as shown above in Table 3, meaning the fourth hypothesis was accepted.
A multiple regression was used to see the ways in which several variables are related to another. The results showed that there was no significance between the criterion variable, birth order, and the predictor variables (F(7,101) = .975, P = .454) as shown in Table 4 above. With the use of a t-test the gender difference was established among the birth positions (t(107) = -.862, p = .391) and the age groups (t(107) = .918, p = .361) and showed that there was generally no statistically significant difference between males and females, meaning the null hypothesis was rejected. As all variables showed no significant difference among , it can be said that the fourth and final hypothesis is accepted as the oldest child and only child did not differ significantly among each of the variables.
Discussion

The aim of this study was to see the affect Adler’s Birth order had on someone’s Self-esteem, conscientiousness, openness and relationships with others, and looked at four hypotheses in relation to each of these variables. With the use of an ANOVA, multiple regression and an independent t-test, the results were gathered from each participant in their respective birth position rather they were the oldest child, middle child, youngest child, only child and other (twins etc.), for each of the variables self-esteem, conscientiousness, openness and relationship styles. All of the results for each birth position for every criterion variable were examined and compared with all results showing little significance throughout. This study showed inconsistencies with previous studies, and at times did not have the results that were originally hypothesised, but this still did not have a damaging effect on the study as Birth order is such a broad topic it is not uncommon to develop such inconsistencies within a study.

With the use of an ANOVA the results showed that self-esteem was generally consistent throughout each of the birth positions with middle child (mean = 21.71, SD = 4.96) showing the highest levels of self-esteem which is the opposite to what had been hypothesised as it was believed that the middle child would show the lowest levels of self-esteem. There were also inconsistent findings in regards to conscientiousness and openness among the birth positions, as it was originally believed in studies, such as Sulloway (1996), that the oldest child would show the highest level of conscientiousness but instead oldest child (mean = 3.54, SD = .650) showed lower results than the middle child and only child, with the youngest child showing the highest score for openness (mean = 3.55, SD .385). Testing relationships was also done using an ANOVA and had a much broader variable as it had four different relationship scales relating to their attachment to others which were secure, fearful, preoccupied and dismissive. For secure style of attachment, results showed that the birth group ‘other’ had the highest level for secure scale (mean = 2.27, SD = .115), with only children (mean = 2.00, SD = .262)
showing the lowest. The birth group ‘other’ also had the highest scoring for fearful scale (mean = 2.08, SD = .520) and preoccupied scale (mean = 2.08, SD = .115) with the only difference being for dismissing scale, which was the middle child (mean = 2.12, SD = .324) who had the highest score.

In all previous studies conducted on Adler’s birth order there were varied results found throughout the studies, such as Ha et. al (2011) who conducted a study on birth order on academic performance and personality, which also showed insignificant results regarding personality traits throughout each birth position. In this particular study two out of the four hypotheses were rejected, which when compared to that of other studies it is not uncommon. This is because birth order is such a vast topic and although the position in which you are born into has a great effect on your self-esteem, personality and relationship styles, so too does your environment and how you were brought up as a child, therefore, insignificant results can also be due to confounding variables such as these. Self-esteem also showed inconsistency with that of other studies as in the majority of other studies conducted on birth order and self-esteem it was hypothesised that the middle born child would show lower levels of self-esteem, but this study showed that the middle born child actually had the highest level of self-esteem

These inconsistencies throughout the study can be put down to the fact that the overall sample was quite small for the number of groups involved as there were 109 participants to five groups, with two of the groups, the middle child (N = 39) and youngest child (N = 38), containing almost two thirds of the entire sample alone. This meant the remaining third of the sample was split into the remaining three groups with only child (N = 8) and other (N = 3) showing an extremely small response and is quite a large difference between each of the birth position. With this shortage in responses for the only child and ‘other’ meant that there was not as worthy of an average as had been hoped for as to get a good average there would need to have been a good pick of responses to work with. This is one main point that will be altered in
any study similar to this in the future, and if a problem such as this may arise again then participants will be recruited for whatever birth position is much lower to the others, meaning each group will have a similar amount of participants involved giving a much better feedback on results. Another factor is that there was a significant difference in regards to the three age groups with the majority of participants being in the age group 18-25 (N = 71) whereas there were only three participants in the age category 41 and over, and as those in the age group 18-25 are still quite young and potentially still living at home with their parents means they may not have developed emotionally yet.

The mood in which a participant is in on the day they complete the survey can potentially have an effect in the way in which they answer some of the questions asked, so in a way of minimizing this the survey was purposely laid out in a way that the more sensitive questions were left for last. This meant the order of the questionnaires was The big five questionnaire to test for personality came first, followed by The Relationship Scale Questionnaire (RSQ) (Griffin & Bartholomew, 1994) to test relationship styles, and finally Rosenberg self-esteem scale (1965) to test self-esteem. Although this may seem like nobody will even take note of the order of the questionnaires, it can make even the smallest change as to how one answers it. Also as the majority of participants were students at DBS means they were asked to fill out the survey during class time. This means that for some participants they may have just quickly answered the survey without putting any real thought into it at all as they just wanted class to continue so they could get their college work done that is important to them.

The strengths of this study are that it was open to everyone except for anyone under the age of 18. This meant that regardless of gender, age over 18, nationality, religion, occupation etc. everyone could participate and get involved, unlike other studies which may just concentrate on females or a certain religion. It was also on a topic that related to everyone as each individual is a member of one birth position in their family and in participating in the study
could see for themselves just how something simple as being the oldest youngest child in the family can affect the person you become. The fact that the survey was available online made it more relaxing for participants to complete in their own time in the comfort of their own home, as those in the classroom may have felt they needed to finish it quickly once they seen other class mates handing theirs up. It also meant that they were able to answer more freely and put more thought in their answers and could even save their answers and come back to it at a later time to complete it. The variables used were also a strength in this study as personality traits, relationship styles with others and self-esteem are all of interest to everyone and apply in everyday life and would draw the attention of potential participants to take part.

The weaknesses obtained in this study were the large amount of questions in the first two questionnaires, The Big five questionnaire and The Relationship Scale Questionnaire (RSQ), as they had 74 questions combined, with some of the questions being similar in some cases. This could potentially mean some participants got fed up and felt they were answering the same questions again and again which in turn could have affected how they answered the questions. But this was a minimal weakness as the survey consisted of 84 questions in total and did not take a large amount of time to complete. As there were only 3 participants in the age category 41 and over it can be put down to the fact that there are not as many over the age of 41 that attend college, as well as the fact that they may not be in access to any social media site to gain access to any online survey, this is one of the main limitations and will be addressed in any future studies regarding this age group. The time at which the surveys were handed out to students can potentially have an effect on someone, as surveys were handed in out in both morning and midday lectures, and for those who are not particularly morning people this could play a part in their interest in answering 84 questions on a survey. The most effected weakness of this study was that the number of participants for age group as well as the categories for birth order position differed significantly meaning there was not a great average got for some
of these categories as would have been hoped for which in turn can affect the overall result. The gender imbalance may have played a part in the results as there were over twice as many females as there were males. This could have had an effect as females tend to be more sensitive and would have been more interested in taking part in a survey that involved your feelings compared to that of males.

In any future studies regarding these specific variables, there will be more of an effort made to obtain a higher level of similarity among both age group and birth order positions as in this study there was a significant difference between the majority of these variables. Instead of just waiting to see how many participants happen to fall into a particular category there will be a set maximum target of participants for each individual category. As done in the study conducted by Ha et. al (2011), they had a set limit of 30 participants for each grouping, meaning they had a much better average obtained from each position of birth order. This will play a positive part in the results as they have the same amount of participants to examine in each category. More appropriate ways of collecting the data will also be addressed which should in turn benefit as to how one answers the survey. This can be obtained by gathering a sample of students while they are sitting relaxed in the canteen on their lunch break instead of interrupting their class while they may be stressed or already overloaded with their own workload. It could also potentially benefit how they answer the survey as their mood should be more stress free if they are sitting happily in the canteen. As a way of gaining more participants for the age category 41 and over, there will be more of an effort made in making the survey more accessible to them. This will be achieved by going to more places where you are more likely to come into contact persons over the age of 41, which could be as simple as going asking passers-by on the street or even going to a supermarket and asking the shop owner if they would be willing to have the survey on display asking for the participation of those over 41. If they are willing to take part they will have the option of filling it out then and there or
they can bring it home with them to fill it out in their own time and return it to the shop before the end date that will be provided.

With many simple changes to the method of collecting data it can have a very large effect on the results obtained throughout the study. Another future possibility is to concentrate more on those who are twins, triplets etc., as in this study there were only 3 participants who were part of this group but although it is known they are not the only child in the family, it was not specified as to if they fell into the oldest child, middle child, youngest child or only child category. It would be interesting to see if you were a twin who was born after an older sibling, would you show great similarities to a participant who was not a twin who was also born the middle child. There were no definite results from this study able to say as to what birth position those who were twins etc. as it differed throughout the study with others scoring roughly the same as oldest child for one variable whereas scoring around the same as middle child for another variable. There could also be comparisons made between each twin who are siblings and see do they share great similarities between their personality, self-esteem and relationship styles or will they differ significantly as one twin may take the oldest child role even though they were born at relatively the same time. These results would be interesting to study although it may prove difficult to gain access to number of twins willing to participate in the study. Another possibility for future result is to study all of the siblings of the one family, rather it be an only child or a family with 6 siblings, and with the results obtained they could be compared to between each other as well as that of other participants in another family who share the same birth position. This would be a real test to see how ones personality, self-esteem and relationship style differs to that of their other siblings, and will also see how they differ to other families.

As this studies purpose was to show the effects Adler’s birth order has on one’s self-esteem, conscientiousness, openness and relationships it can be said that this study showed that there is
a large variation in results that can be obtained and this can be put down to a number of many confounding variables. However, although this study may not have shown just how significant one differs from another person because of the birth position they are born into, it does not mean that there is no variance there. If one is to compare themselves to their own siblings they are sure to see that they are not entirely the same as their brother or sister in their personality and one may be more confident than the other or closer to their parents. This shows that in every family there is significant difference there, and if a larger sample is obtained then these particular findings should be more evident.

As stated numerous times, birth order is a very broad topic with endless amount of differences among each birth position. With continuous research done on this particular variable there is an endless amount of discoveries still to be made to find out just significant the simplicity of the order you are born into your family has on the person who you become. It is something everyone relates to as everyone is part of one of the birth positions and can give people a better understanding as to why one might feel differently toward one sibling as they do to another, as a middle child might wonder why they never felt as close to their older sibling until they discover it was all over that sibling stealing their attention off their parents. Birth order is more than likely not one of the things you would consider affecting who you become, but when you read even one study that involves birth order it will most definitely make things seem a lot more clear.
References


• Eckstein, D. & Kaufman, J.A. *The role of birth order in personality: An enduring intellectual legacy of Alfred Adler*.


Appendix

Adler’s birth order effect on self esteem, conscientiousness, openness and relationships.

I am a final year Psychology student and I am conducting my final year project on the psychological effects Adler’s Birth order has on an individual.

You are invited to take part in this study by completing and returning the attached anonymous questionnaire. Participation is completely voluntary and confidential. It is important that you understand by completing this questionnaire you are consenting to participate in the study.

Should you require any further information about the research, please contact:

Maeve Daly –

My supervisor can be contacted at

Thank you for taking the time to complete this survey.

**Gender:** Male [ ] Female [ ]

**Age:** 18-25 [ ] 26-40 [ ] 41 and over [ ]

**Birth Order:** Oldest [ ] Youngest [ ] Middle [ ] Other (eg. Twins) [ ]
Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

<table>
<thead>
<tr>
<th></th>
<th>1 Disagree Strongly</th>
<th>2 Disagree a little</th>
<th>3 Neither agree nor disagree</th>
<th>4 Agree a little</th>
<th>5 Agree strongly</th>
</tr>
</thead>
</table>

**I am someone who…**

1. _____ Is talkative
2. _____ Tends to find fault with others
3. _____ Does a thorough job
4. _____ Is depressed, blue
5. _____ Is original, comes up with new ideas
6. _____ Is reserved
7. _____ Is helpful and unselfish with others
8. _____ Can be somewhat careless
9. _____ Is relaxed, handles stress well.
10. _____ Is curious about many different things
11. _____ Is full of energy
12. _____ Starts quarrels with others
13. _____ Is a reliable worker
14. _____ Can be tense
15. _____ Is ingenious, a deep thinker
16. _____ Generates a lot of enthusiasm
17. _____ Has a forgiving nature
18. _____ Tends to be disorganized
19. _____ Worries a lot
20. _____ Has an active imagination
21. _____ Tends to be quiet
22. _____ Is generally trusting
23. _____ Tends to be lazy
24. _____ Is emotionally stable, not easily upset
25. _____ Is inventive
26. _____ Has an assertive personality
27. _____ Can be cold and aloof
28. _____ Perseveres until the task is finished
29. _____ Can be moody
30. _____ Values artistic, aesthetic experiences
31. _____ Is sometimes shy, inhibited
32. _____ Is considerate and kind to almost everyone
33. _____ Does things efficiently
34. _____ Remains calm in tense situations
35. _____ Prefers work that is routine
36. _____ Is outgoing, sociable
37. _____ Is sometimes rude to others
38. _____ Makes plans and follows through with them
39. _____ Gets nervous easily
40. _____ Likes to reflect, play with ideas
41. _____ Has few artistic interests
42. _____ Likes to cooperate with others
43. _____ Is easily distracted
44. _____ Is sophisticated in art, music, or literature
Please read each of the following statements and rate the extent to which you believe each statement best describes your feelings about close relationships.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all like me</th>
<th>Somewhat like me</th>
<th>Very much like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I find it difficult to depend on other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. It is very important to me to feel independent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I find it easy to get emotionally close to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I want to merge completely with another person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I worry that I will be hurt if I allow myself to become too close to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I am comfortable without close emotional relationships.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I am not sure that I can always depend on others to be there when I need them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I want to be completely emotionally intimate with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. I worry about being alone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. I am comfortable depending on other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. I often worry that romantic partners don't really love me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
12. I find it difficult to trust others completely. 1 2 3 4 5
13. I worry about others getting too close to me. 1 2 3 4 5
14. I want emotionally close relationships. 1 2 3 4 5
15. I am comfortable having other people depend on me. 1 2 3 4 5
16. I worry that others don't value me as much as I value them. 1 2 3 4 5
17. People are never there when you need them. 1 2 3 4 5
18. My desire to merge completely sometimes scares people away. 1 2 3 4 5
19. It is very important to me to feel self-sufficient. 1 2 3 4 5
20. I am nervous when anyone gets too close to me. 1 2 3 4 5
21. I often worry that romantic partners won't want to stay with me. 1 2 3 4 5
22. I prefer not to have other people depend on me. 1 2 3 4 5
23. I worry about being abandoned. 1 2 3 4 5
24. I am somewhat uncomfortable being close to others. 1 2 3 4 5
25. I find that others are reluctant to get as close as I would like. 1 2 3 4 5
26. I prefer not to depend on others. 1 2 3 4 5
27. I know that others will be there when I need them.  
28. I worry about having others not accept me.  
29. Romantic partners often want me to be closer than I feel comfortable being.  
30. I find it relatively easy to get close to others.
Below is a list of statements dealing with your general feelings about yourself.

If you *strongly agree* with the statement circle SA.

If you *agree* with the statement circle A.

If you *disagree* with the statement circle D.

If you *strongly disagree* with the statement circle SD.

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On the whole, I am satisfied with myself.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>At times, I think I am no good at all.</td>
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<tr>
<td>3</td>
<td>I feel that I have a number of good qualities.</td>
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<tr>
<td>4</td>
<td>I am able to do things as well as most other people.</td>
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<tr>
<td>5</td>
<td>I feel I do not have much to be proud of.</td>
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<td></td>
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<tr>
<td>6</td>
<td>I certainly feel useless at times.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>I feel that I’m a person of worth, at least on an equal plane with others.</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>I wish I could have more respect for myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>All in all, I am inclined to feel that I am a failure.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I take a positive attitude toward myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>