

Examining the Impact Birth Order and Age has on Personality and Satisfaction with Life

Joanne Lynam

10156638

Submitted in partial fulfilment of the requirements of the BA Hons in Psychology at Dublin
Business School, School of Arts, Dublin

Supervisor: Lucie Corcoran

Programme Leader: Dr. Rosie Reid

March 2018

Department of Psychology

Dublin Business School

Table of Contents

Acknowledgements	3
Abstract	4
Introduction	5
Birth Order	6
Personality	8
Satisfaction With Life	12
Rationale	14
Hypotheses	15
Methodology	16
Participants	17
Materials	17
Design	20
Procedure	20
Results	22
Descriptive Statistics	23
Inferential Statistics	26
Qualitative Data Findings	29
Discussion	33
Overview	34
Summary of Results	35
Other Findings	38
Strengths, Weaknesses and Future Research	38
Conclusion	41
References	43
Appendix	48

Acknowledgements

Firstly, I would like to thank all the staff of Dublin Business School, especially my supervisor Lucie Corcoran for her continuous support and generous guidance throughout this project.

I would also like to thank all the participants who gave up their valuable time to take part in this study.

Finally, I would like to thank my family and friends for their support and encouragement.

Abstract

The aim of this study was to examine the impact birth order has on personality and satisfaction with life between two generations, millennials (18-39 years of age) and generation X (40+ years of age). Participants (n = 101) completed a survey which included two questionnaires, The Big Five Inventory and The Satisfaction With Life Scale. Analysis of the data found that there was no significant difference between birth order and the psychological variables that were examined. It was found that extraversion, agreeableness and conscientiousness positively correlated with satisfaction with life and neuroticism negatively correlated with satisfaction with life. No age differences were found in relation to satisfaction with life. Future research on the topic of birth-order could consider the environmental factors that impact on development along with these variables in order to find more definitive results.

Introduction

The order in which a person is born into a family is said to have an impact on the development of their personality. In the early 1900's, Alfred Adler was the first psychiatrist that believed in the idea that birth order had an effect or determined personality traits (Cervone & Pervin, 2008). Since then, the effects of birth order have been widely researched. It is currently an undergoing and contentious research topic. Many researchers, such as Ernst and Angst in 1983, have concluded that studies on the effects of birth order are invalid and poorly planned and thus leading people to believe that birth order does not have any significant effect (Eckstein et al., 2010). However, based on the vast amount of ongoing research, the topic of birth order is clearly still of great interest, especially in regard to its effects on personality and satisfaction with life. It is believed that Adler's theories were guided by the work of Charles Darwin and the idea of evolution and adaptation (Cervone & Pervin, 2008). Regarding this Darwinian idea, children may compete for their parents attention and in doing so, make use of certain strategies that are created by the order of their birth, and these strategies are said to have lifelong effects on personality traits (Sulloway, 1999). According to Adler, siblings strive to differentiate themselves from one another in a process called sibling de-identification (Eckstein & Kaufman, 2012). Birth order, therefore, allows a child to be unique as they demonstrate different behaviours and personalities, in comparison to their siblings.

This study will aim to examine the impact birth order has on personality traits and satisfaction with life. This study will also examine whether or not these effects will differ significantly between two generations, generation X (40+ years) and millennia's (18-39 years). Two questionnaires will be used in this study, which include, the Big Five Inventory (John & Srivastava, 1999) and the Satisfaction with Life Scale (Pavot & Deiner, 1985). The BFI measures five scales which include extraversion, agreeableness, conscientiousness, neuroticism and openness. This quantitative mixed-

method study will, therefore, analyse the impact birth-order has on personality and satisfaction with life with age. Strong reasoning behind carrying out this study is due to the fact that there are no known birth-order research studies undertaken in Ireland that analyse these specific variables and their effects combined. This study will impart valuable research in the area of developmental psychology and will be useful in analysing previous research and its validity in Ireland's current day families. This chapter will discuss some of the previous research of birth-order, personality, satisfaction with life and age.

1.1 Birth Order

Birth-order can be said to be the actual position the child is born into a family, for instance, first-born, middle-born or last-born, otherwise known as the ordinal position. However, Eckstein et al, looked at the Adlerian concept of birth-order and stated in these studies was the idea that birth order is not what determines personality traits, however, but what situation the child is born into and how they later present in it (Eckstein et al, 2010). This idea refers to the role a child may adopt as a response to his or her interactions with those around them or otherwise known as one's psychological position. Frank Sulloway published 'Born to Rebel' which looked at the effects of birth order on personality. He stated that children adopt certain traits, depending on the position they are born, to gain their parents attention or interest in them (Sulloway, 1996). It is believed also, that Adler thought that specific events that took place within a family had important effects on the development of the child (Ansbacher & Ansbacher, 1956).

Adler (1928) believed that first borns were more conscientious, responsible and organised. First born's are likely to act like second parents for their younger family members (Jefferson et al, 1998). First borns are also said to show these traits through responsible behaviours (Paulhus et al, 1999).

Adler (1928) suggested that first borns will then feel the loss of their mother's love due to a second child being born. This is known as being 'dethroned' by the second baby. Dethronement was also seen to be evident in Sulloway's work on birth order traits in 1996. It is believed that this early experience of loss can make the first born wary of risk and as such will shy away from new experiences in comparison to the later born children in the same family (Gilliam & Chatterjee, 2011).

In regard to middle-borns, Adler (1928) believed that they could develop a sense of not-belonging because they are not high achievers like their elders. It has been studied that in cases of families with equal parental attention, middle-borns are said to still receive less support than the first or last-borns (Sulloway, 2001). In other words, middle-borns are said to have to share their parental attention throughout their lives, when however, first and last-borns may experience certain lengths of time when they are treated like only children. Middle-borns are, therefore, said to place more emphasis on their peers and social contacts rather than their families (Sulloway, 2001). Middle-borns are said to be more independent and less involved in the family and more likely to seek help from outsiders (Salmon & Daly, 1998).

In terms of last-borns, Adler (1928) believed that the youngest member of the family tended to be babied. He stated that this babying behaviour from the parents, leads the child into becoming selfish and irresponsible. Last-borns are said to be easy-going, risk-inclined and sociable (Eckstein et al, 2010). It has been stated that later-borns are more open to new experiences, especially in comparison to first-borns (Healey & Ellis, 2007). However, because they are babied, last-borns are said to be at risk over becoming overly-dependent on others, in need of constant assistance and

lacking in initiative (Mairet, 1964). Last-borns are said to be determined to succeed, but they often fail due to the lack of initiative (Ryckman, 2008).

Only-children are said to have similar characteristics to first and last-born children (Eckstein, 2010).

Only children do not have to fight for their parents attention as they have no brothers or sisters.

According to research, if only-children are faced with unpopularity from people in their later life,

they will have problems adjusting or will become more emotionally-unstable because of the fact

they received their parents undivided attention when they were younger (Ryckman, 2008). Only-

children are said to be very achievement driven and tend to have high intelligence levels, however,

they can also be self-seeking and uncooperative (Eckstein 2010).

Therefore, previous research has led us to believe that first-borns are more conscientious, middle-

borns are more extroverted, last-borns are more open to experience and only-children are more

neurotic. This current study will aim to examine these common-held beliefs. The next section will

further discuss these personality traits.

1.2 Personality

As previously stated the Big Five Inventory (John & Srivastava, 1999) measures five traits of

personality, including conscientiousness, extraversion, agreeableness, neuroticism and openness. It

is believed that these five traits are the fundamental elements of personality. It is also said that these

five traits are constant and unchanging throughout one's lifetime (McCrae & Costa, 1994). It is of

interest to study personality traits among families as all members portray different behaviours and

personalities.

Conscientiousness

To be conscientious means to be orderly, responsible and dependable (Costa & McCrae, 1992). People who are conscientious desire to carry out tasks efficiently. It was Adler's belief that first-borns prove to be more conscientious in comparison to their siblings (Adler, 1928). This current study hopes to test this belief that Adler held. Adler (1928) stated that first-borns are recognised as having the main power amongst their siblings and of being of assistance to their parents. First-borns are said to develop this trait of conscientiousness due to the fact that they want to make their parents happy or impress them by acting as a third-parent for their siblings (Sulloway, 1996). First-borns tend to want to be seen as special to their parents which makes them take on this responsible role in the family (Galton, 1874). According to research first-borns are normally believed to be conscientious, especially in regard to their working life and occupations, and because of such, they gain higher success in their professional lives (Zajonc et al., 2003). Since first-borns are older and stronger than their siblings, they tend to hold dominance and responsibility (Howe & Recchia, 2014). Responsibility is normally instilled in first-borns as they think their parents have high expectations of them (Basket, 1985).

Neuroticism

People who score highly on neuroticism tend to be anxious, fearful and have higher depression and jealousy tendencies (Costa & McCrae, 1992). People who are considered neurotic are more likely to be emotionally unstable in comparison to people who are not considered neurotic. It is believed through research that because first-borns feel like they have high expectations of them from their parents, that they develop feelings such as anxiety and become fearful of being dethroned, which leads to higher neuroticism (Sulloway, 1996). Reasoning behind first-borns having higher neuroticism levels in comparison to their siblings is because they received greater amounts of

discipline from their parents (Hotz & Pantano, 2010). Parents tend to decrease the amount of discipline they impose, especially on the later-borns. This explains why first-borns tend to be more neurotic. Dethronement which is felt by the first-born is due to the birth of the second baby in a family. Dethronement can make the first-born experience high levels of jealousy and anxiety as they now have to share their parents love with the second baby, thus leading to higher neuroticism levels (Sulloway, 1996). In other research, 200 participants aged between 18-20 years were analysed, and it was found that only-children scored slightly higher on neuroticism levels in comparison to children with siblings (Badi, 2017). This may be due to the fact that only-children are used to being alone and that they don't have siblings to rely on, which could in-turn affect their later life development (Koontz, 1989). It was stated that only-children had emotional problems such as extreme sensitivity and anger problems, in comparison to children with siblings (Brophy, 1989).

Extraversion

When someone is extroverted, it means they are sociable and outgoing (Costa & McCrae, 1992). Extraversion makes a person more inclined to take part in social events and enjoy getting along with others. As stated previously, middle-borns are said to receive less support from their parents in comparison to the first and last-born (Sulloway, 2001). The modern dilution theory states that parents in modern situations, and who are rearing children who were born at different times, tend to limit the support they give to the children of which they still care for (Berhman & Taubman, 1986). As a consequence of this, middle-borns tend to have higher levels of extraversion, due to the fact they place more importance on their peers and social contacts rather than the members of their family (Sulloway, 2007).

Agreeableness

A person that is agreeable, is more likely to be honest, empathetic and altruistic (Costa & McCrae, 1992). According to research, it is said that first-borns score low on agreeableness due to the fact they have displayed dominance upon their siblings (Sulloway, 1996). It has been argued that middle-born children shun away from arguments with the first-born in an effort to obtain their parents approval, and as such develop a heightened level of agreeableness (Sulloway, 1996). According to research, middle-born children also show signs of cooperation and understanding, which may be due to the fact that they have a tendency to resolve arguments between their siblings and act as a peacemaker (Sulloway, 1999).

Openness to Experience

A person who is open to experience is said to be curious, imaginative and enjoys taking part in new things. It includes having a good imagination, being adventurous and having aesthetic sensitivity (Costa & McCrae, 1992). As previously stated, first-borns are said to be like a third parent and they follow the guided rules as outlined by their parents. However, in comparison, last-borns cannot look after themselves so they seek out a new family niche, partly by developing hidden talents that they acquire through experimentation (Sulloway, 1999). This desire to acquire unique talents, allows the last-born to become more open to new experiences. Healy & Ellis (2007) carried out studies to test Sulloway's ideas and found that last-born's tend to be more open to experience in comparison to first-borns. Sulloway stated that openness to experiences was linked in with rebelliousness, especially in regards to last-born children. It has been researched that last-born children, were more likely to go to prison, which backs up Sulloway's link to rebelliousness (Zweigenhaft & Von

Ammon, 2000). According to Badi (2017), only-children scored slightly higher on openness to experience, in comparison to children with siblings.

1.3 Satisfaction With Life

Satisfaction with life has been given many definitions, however, it has been said that it is the conscious and cognitive view one has upon oneself and the basis of its judgement rely on the person themselves (Pavot & Deiner, 1993). Life satisfaction has also been defined as an evaluation of the overall conditions of one's existence, which is based upon the comparison of their aspirations to their actual real life successes (George & Bearson, 1980). It is the amount of happiness one has with one's own lifestyle (Hamilton, 1995). The importance of satisfaction with life is evident in dealing with the everyday stresses of today's world. A previous study carried out in China, analysed the impact birth-order had on satisfaction with life. Important to note is that most children are only-children due to the policy set in China. However, it was found in this study that the only-child participants had a greater level of life satisfaction in comparison to the participants who had siblings and more specifically, the later-borns (Shao et al., 2013). Another study, carried out on 382 participants in Turkey, analysed the impact order of birth had on life satisfaction. The results found that participants who were first-born and had female siblings had a higher satisfaction with life in comparison to participants who were second-born and had female siblings. It was also found that female participants who were first-borns had lower satisfaction with life in comparison to female participants who were second-born (Soysal, 2015).

In regard to the impact personality traits have on satisfaction with life, many studies have been carried out to examine their relationship. It has been noted that Deiner et al., (2002), holds the view that personality correlates with satisfaction with life. It is believed that extraversion and neuroticism

strongly correlate with satisfaction with life (Costa & McCrae, 1980). It has been studied that extraversion has a positive correlation with .38 at a zero-order level (Lucas & Fujita, 2000). It was also noted that a similar strength relationship saw neuroticism with a negative association (Fujita, 1991). However, other personality traits can not be ruled out as having an effect on satisfaction with life. Research shows that agreeableness and conscientiousness had a correlate of .20 with satisfaction with life scales (DeNeve & Cooper, 1998). Conscientiousness is said to enable people to have greater success in their lives and in turn, greater satisfaction with life (Boyce, Wood & Brown, 2010). Previous research has also stated that high levels of openness to experience leads to greater satisfaction with life as people who try new things and want to better themselves, are in turn fulfilling their psychological demands (Stephan, 2009).

In regard to satisfaction with life and age, many researchers have conducted studies to test the relationship. A study was carried out to evaluate the three scales of the participant's well-being from different ages and countries across the world. The study analysed, evaluative well being (levels of satisfaction participants had with life), hedonic well-being (evaluation of emotions, such as anger or happiness) and eudemonic well-being (participants feelings towards their purpose in life). The study included participants from 160 countries and used the Gallop World Poll. It was found that in English speaking countries, satisfaction with life tends to drop from the ages of 45-54 years of age, but however, begins to rise again in older age, especially in cases of high financial income. However, in countries in Eastern Europe, the Soviet Union and Latin America, life satisfaction continually drops as people age and in comparison, young people from these countries have a higher level of satisfaction with life. It was noted, however, that participants from sub-Saharan Africa did not show any change in satisfaction with life and age (Steptoe, Deaton & Stone, 2014). In another study, life satisfaction and age was analysed over a time period of 27 years (1982-2009).

Within this study, 39,420 participants took part and came from either Estonia, Sweden, Latvia or Finland. Participants were aged between 15-100 years. It was found through this study that participants from Estonia and Latvia, had greater levels of life satisfaction in the younger and older groups in comparison to the participants in the middle-age group (Realo & Dobewall, 2011). Another study was carried out which included 40'000 participants from Germany. The study included individuals from households in Germany and it was initiated in 1984. The participants were analysed once every year. It was found that there was no great decline in satisfaction with life throughout one's lifetime. It also found that satisfaction with life severely dropped after the age of 70 years (Baird, Lucas & Donnellan, 2010).

1.4 Rationale

It is evident that there is a vast amount of research on the impact of birth-order and one's development. However, there has not yet been a study conducted in Ireland, that examines the impact of birth-order on personality and satisfaction with life with age groups. Reasoning behind carrying out this study is to build upon past research, while also aiming to create new research in this area. The use of qualitative research in the current study will aim to produce a more in-depth understanding of how birth-order impacts one's development. This study will give a valuable insight into the impact of birth-order on personality and satisfaction with life with age.

This research will be valuable in the area of developmental psychology. This study will be useful in analysing the previous research and if it applies to Ireland's current day families.

1.5 Hypotheses

Hypothesis 1: There will be a significant difference between the birth-order groups on personality traits. It is hypothesised that first-borns will score highly on conscientiousness and neuroticism, middle-borns will score highly on extraversion and agreeableness, last-borns will score highly on openness to experience and only-children will score highly on neuroticism and openness to experience.

Hypothesis 2: There will be a significant difference between the birth-order groups on satisfaction with life levels.

Hypothesis 3: There will be a significant difference between the birth-order and generation groups (millennials & generation X) on satisfaction with life levels.

Hypothesis 4: There will be a significant correlation between satisfaction with life and personality. It is hypothesised that extraversion, agreeableness and conscientiousness will be positively correlated with satisfaction with life and that neuroticism will be negatively correlated with satisfaction with life.

Chapter 2: Methodology

2.1 Participants

A total amount of 101 participants were involved in this study and completed the questionnaire voluntarily. The participants consisted of both females (n = 67) and males (n = 34). It was required that the participants were over the age of 18 years to participate. The participants were further split into two different age groups and generation categories, 18-39 years of age (n = 76) and 40+ years of age (n = 25). The 18-39 years of age group were categorised as 'millennials' and the 40+ years of age group were categorised as 'generation X'. The 101 participants were also split into 4 birth order groups, consisting of, first-borns (n = 44), middle-borns (n = 25), last-borns (n = 23) and only-children (n = 9). The questionnaire was distributed to both full-time and part-time psychology students attending Dublin Business School. The students completed the anonymous questionnaire on a purely voluntary basis.

2.2 Materials

The survey that was created for this study was designed to measure satisfaction with life and the big five personality traits. The cover page of the survey included information about the researcher's aims and purpose's for carrying out the study and the researcher's college contact information. It was also made clear on the cover page that by completing the survey, the participant was giving their consent to take part. It was emphasised on the cover page that participation in this study was completely voluntary and anonymous. On the first page of the questionnaire, demographic and background questions that related to birth order, age and gender were asked.

Two scales were used in the survey, which included, The Big Five Inventory (John & Srivastava, 1999) and The Satisfaction With Life Scale (Diener, Emmons, Larsen & Griffin, 1985).

The Big Five Inventory (BFI) was the first scale used in this study and it included 44 items which measured the five main traits of personality as outlined by John & Srivastava, 1999. These five main traits include extraversion (8 items), agreeableness (9 items), conscientiousness (9 items), neuroticism (8 items) and openness to experience (10 items). This scale used a 5-point Likert scale, in which the answers ranged from 1 = Disagree Strongly to 5 = Agree Strongly.

People who score highly in extraversion are said to be outgoing and sociable, whereas, people who score lower in extraversion are said to be introverted and shy (John & Srivastava, 1999). An example of a question that measures extraversion includes question 1 'Is talkative'.

People who score highly in agreeableness are said to be forgiving and compliant, whereas, people who score lower on agreeableness are said to be more hostile and confrontational (John & Srivastava, 1999). An example of a question that measures agreeableness includes question 7 'Is helpful and unselfish with others'.

People who score highly on conscientiousness are said to be hard workers and organised, whereas, people who score lower on conscientiousness are said to be more careless and lazy (John & Srivastava, 1999). An example of a question that measures conscientiousness includes question 28 'Perseveres until the task is finished'.

People who score highly on neuroticism are said to be tense, vulnerable and worrisome, whereas, people who score lower on neuroticism are said to be more emotionally stable and less reactive to stress (John & Srivastava, 1999). An example of a question that measures neuroticism includes question 39 'Gets nervous easily'.

People who score highly on openness to experience are said to be curious and highly imaginative, whereas, people who score lower on openness to experience are said to be more closed to experience and traditional in their views (John & Srivastava, 1999). An example of a question that

measures openness to experience includes question question 30 'Values artistic, aesthetic experiences' (Goldberg, 1993).

Certain questions in the BFI scale had to be reverse scored and later recoded (John & Srivastava, 1999). The questions measuring extraversion and are reverse scored consist of questions 6, 21 and 31. The questions measuring agreeableness and are reverse scored consist of questions 2, 12, 27 and 37. The questions measuring conscientiousness and are reverse scored consist of questions 8, 18, 23 and 43. The questions measuring neuroticism and are reverse scored consist of questions 9, 24 and 34. The questions measuring openness and are reverse scored consist of questions 35 and 41. With these questions, scoring changed to 1 = Agree Strongly and 5 = Disagree Strongly.

Satisfaction with Life Scale:

The Satisfaction With Life Scale (SWLS) was the second scale used in this study and it included 5 items. This scale was created as a measure of the judgemental component of subjective well-being (Diener et al., 1985). This scale measures an important component of subjective well-being, which is life satisfaction (Diener et al., 1985). Each item on this scale is answered on a 7 point Likert scale, in which answers range from 1 = Strongly Disagree to 7 = Strongly Agree. Each item score is added up to give a total score. High scores are said to range from 31-35, and this indicates that the participant is extremely satisfied with life, whereas, low scores range from 5-9, and this indicates the participant is extremely dissatisfied with life (Diener et al., 1985).

The final section of the survey used for this study included an open-ended question. An open-ended question was included in this survey as it allows the researcher to obtain more information in regard to the participant's personal feelings and attitudes surrounding the research question. This open-ended question was used as the qualitative research aspect of the study and a Thematic Analysis was

used to examine the answers given by the participants. The question was written as “Would you say your birth-order has impacted positively or negatively or both on your experience of life and why?”.

In the possible event that any of the participants were negatively affected by the questions raised in this survey, contact information for support services were included on the final page. This was important in obeying the ethical code of conduct as outlined by the Psychological Society of Ireland (PSI).

A statistical software package (SPSS, version 24 for Mac) was used to enter and analyse the data for this study.

2.3 Design

This study was undertaken using a cross-sectional design and carried out with a quantitative mixed method with a sample of convenience. A cross-sectional design was used for this study as it allowed people of different ages to be examined at the same time. Cross-sectional research is observational. It is suited to this study as it does not manipulate the variables at interest. Cross-sectional analysis allows the researcher to examine numerous things at one time. In this study, age, personality and satisfaction with life are examined. This cross-sectional design does not look at cause and effect relationships, but rather, investigates if any correlations exist. In this study the predictor variables were birth-order and age and the criterion variables were personality and life-satisfaction.

2.4 Procedure

Before participants could be gathered for this study, ethical approval was needed. Once ethical approval had been gained the study could begin. The questionnaire was distributed to students of psychology classes in Dublin Business School during the month of January 2018. The questionnaire

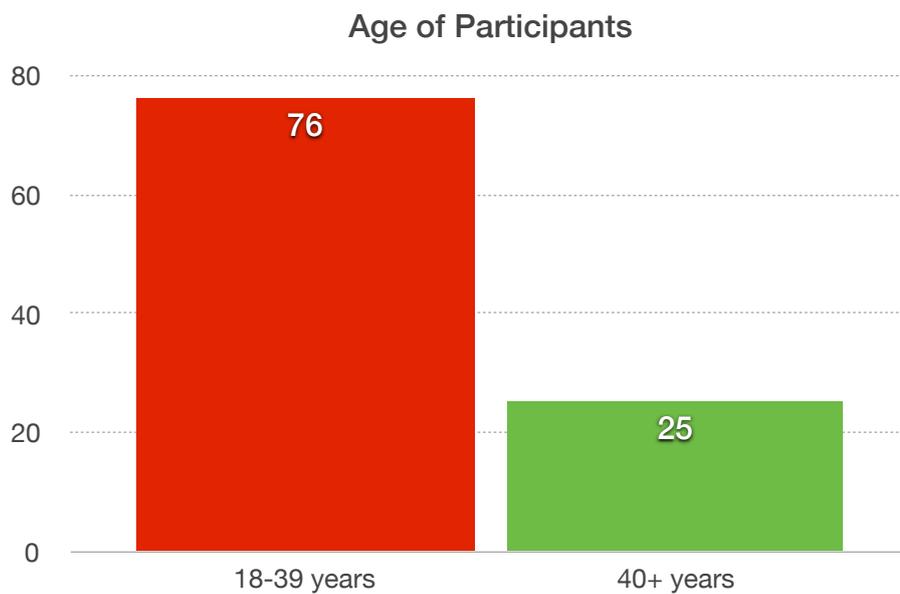
took around 10-15 minutes to complete. It was emphasised on the cover page that participation was completely voluntary and that participants could withdraw from the study up until submission of the questionnaire. It was also stated on the cover page that participation was anonymous and completion of the questionnaire was one's way of giving their consent to participate. Information was also given on the researcher's college contact details and the aims and purposes of the study. It was required that the participants were over the age of 18 to take part in this study. The questionnaire first asked demographic and background questions that related to the participant's order of birth, gender and age. The second section included the two scales, the BFI and the SWLS. The last section of the questionnaire included an open-ended question which read "Would you say your birth-order has impacted positively or negatively or both on your experience of life and why?". The last page of the questionnaire also included support services contact information, in case a participant was negatively affected by the questions raised in the survey. The data from this study was gathered and entered in SPSS and then recoded for future analysis. The data was kept securely stored on a password protected computer.

Chapter 3: Results

3.1 Descriptive Statistics

The sample included in this study included 101 participants, in which females (n = 67, 66.3%) and males (n = 34, 33.7%). The participants were also split into age groups of either 18-39 years of age or 40+ years of age. Within the sample of 101 participants, the 18-39 years of age group included 76 participants (75.25%), whereas, the 40+ years of age group included 25 participants (24.75%).

Figure 1 below - The number of participants in separate age groups



The questionnaire filled out by the participants of this study included demographic and background questions, The Big Five Inventory (BFI) (John & Srivastava, 1999), which measures personality traits and the Satisfaction With Life Scale (SWLS) (Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S, 1985), which measures satisfaction with life. When filling out the questionnaire, the participants were asked to designate themselves into 4 different birth orders, including first-born, middle-born, last-born and only child. Within the 101 participants, the first-born group consisted of (n = 44, 43.6%), the middle-born group consisted of (n = 25, 24.8%), the last-born group consisted of (n = 23, 22.8%) and the only-child group consisted of (n = 9, 8.9%).

● First-Born ● Middle-Born ● Last-Born ● Only-Child

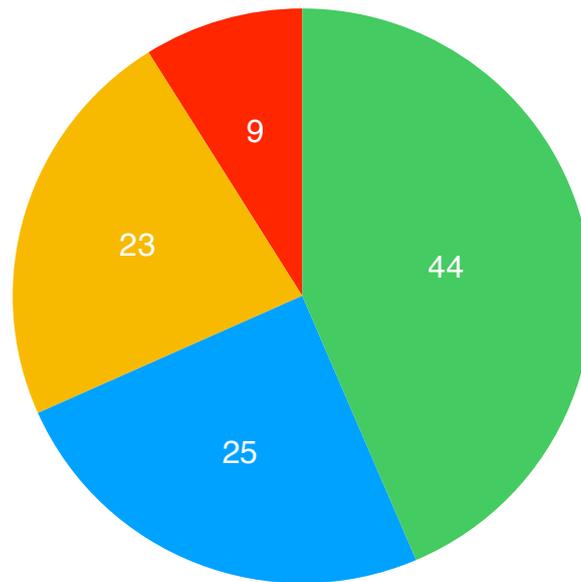


Figure 2 above - Pie chart showing number in birth-order groups

The participants were further spilt into birth-order and generation groups. The generations examined in this study included millennials (18-39 years) and generation X (40+ years). Within the 101 participants, first-born millennials included (n = 34, 44.7%), middle-born millennials included (n = 16, 21.1%), last-born millennials included (n = 18, 23.7%) and only-child millennials included (n = 8, 10.5%). Additionally, the first-born generation X group included (n = 10, 40%), middle-born gen X included (n = 9, 36%), last-born gen X included (n = 5, 20%) and the only-child gen X group included (n = 1, 4%).

Before carrying out the hypothesis tests to check for any significant results, several descriptive statistics were studied to check for any trends within the variables. The mean (M) and standard deviation (SD) of the psychological measures are displayed in the table 1 on the next page.

Table 1 below - M & SD of psychological measures.

Variable	N	M	SD
Satisfaction With Life Total	101	23.38	6.08
Extraversion Total	101	25.98	6.67
Agreeableness Total	101	34.09	6.30
Conscientiousness Total	101	31.26	6.55
Neuroticism Total	101	23.45	6.93
Openness Total	101	36.66	4.86

The satisfaction with life variable can have scores that range from 5-35, with a score of 20 indicating a neutral mark on the scale. A score of 5-9 would indicate that a participant is extremely dissatisfied, whereas, a score of 30-35 would indicate that a participant is highly satisfied. The mean score of satisfaction with life for the participants of this study was 23.38 with a SD of 6.08. This tells us that overall, the participants had average levels of satisfaction with life.

The reliability analysis of the scales used in this study also displayed the cronbach's alpha score. The cronbach's alpha score is a measure of internal consistency and allows the researcher to know if the scale used is reliable. The cronbach's alpha scores for the scales used are displayed in table 2 on the next page.

Table 2 below- Cronbach's alpha scores for scales used.

<u>Variable</u>	<u>Cronbach's Alpha</u>
Extraversion Total	0.878
Agreeableness Total	0.832
Conscientiousness Total	0.841
Neuroticism Total	0.861
Openness Total	0.582
Satisfaction With Life Total	0.839

The cronbach's alpha scores displayed above are relatively high, meaning that the items have relatively high internal consistency.

3.2 Inferential Statistics

Hypothesis 1

A one-way analysis of variance (ANOVA) was ran to analyse the effect of birth order on personality in first-borns, middle-borns, last-borns and only-children.

There was no statistical significance between birth order and extraversion ($f(3, 97) = .792, p = .501$).

There was no statistical significance between birth order and agreeableness ($f(3, 97) = .785, p = .505$).

There was no statistical significance between birth order and conscientiousness ($f(3, 97) = .140, p = .936$).

There was no statistical significance between birth order and neuroticism ($f(3, 97) = .348, p = .791$).

There was no statistical significance between birth order and openness ($f(3, 97) = .614, p = .607$).

Therefore the null hypothesis is accepted.

Hypothesis 2

A one-way analysis of variance (ANOVA) was ran to analyse the effect of birth order on satisfaction with life in first-borns, middle-borns, last-borns and only-children.

There was no statistical significance between birth order and satisfaction with life ($f(3, 97) = .228, p = .876$) as shown in table 3 below.

Table 3 below - ANOVA for Satisfaction.

	Sum Of Squares	df	Mean Square	F	Sig.
Between Groups	25.919	3	8.64	0.228	0.876
Within Groups	3667.784	97	37.812		
Total	3693.703	100			

However, only-children showed slightly higher levels of life satisfaction ($M = 24.67, SD = 6.56$) in comparison to first-borns ($M = 22.95, SD = 6.29$), middle-borns ($M = 23.32, SD = 6.39$) and last-borns ($M = 23.74, SD = 5.39$), though this was not statistically significant.

Therefore, the null hypothesis is accepted.

Hypothesis 3

A one-way analysis of variance (ANOVA) was ran to analyse the effect of birth order and generation on satisfaction with life in first-born millennials, middle-born millennials, last-born millennials, first-born generation X, middle-born generation X and last-born generation X. Only-children were not included in this hypothesis test as the sample size was too small (only 1 participant was only-child generation X). There was no statistical significance between birth order and generation on satisfaction with life ($f(5, 86) = 1.33, p = .258$) as shown in table 4 on the next page. Therefore, the null hypothesis is accepted.

Table 4 - ANOVA for satisfaction on birth-order & generation.

	Sum Of Squares	df	Mean Square	F	Sig.
Between Groups	239.918	5	47.984	1.334	0.258
Within Groups	3093.332	86	35.969		
Total	3333.25	91			

However, it is noted that the generation X groups had slightly higher satisfaction with life levels compared to the millennial groups, however this is not statistically significant. The mean and standard deviations of the groups are displayed in table 5 below.

Table 5 below - M & SD of birth order & generation groups

Variable	M	SD
First-born Generation X	26.00	3.97
Middle-born Generation X	25.89	6.92
Last-born Generation X	25.40	2.61
First-born Millennials	22.06	6.61
Middle-born Millennials	21.88	5.81
Last-born Millennials	23.28	5.92

Hypothesis 4

Several Pearson correlation coefficients were ran to examine if there was any significant correlations between satisfaction with life and personality traits.

A Pearson correlation coefficient found that there was a moderate positive significant relationship between total satisfaction (M = 23.38, SD = 6.08) and total extraversion (M = 3.25, SD = .833) ($r(99) = 0.43, p < .001, 2\text{-tailed}$). Therefore, the null hypothesis is rejected.

A Pearson correlation coefficient found that there was a moderate positive significant relationship between total satisfaction ($M = 23.38$, $SD = 6.08$) and total agreeableness ($M = 3.79$, $SD = .700$) ($r(99) = 0.416$, $p = <.001$, 2 tailed). Therefore, the null hypothesis is rejected.

A Pearson correlation coefficient found that there was a moderate positive significant relationship between total satisfaction ($M = 23.38$, $SD = 6.08$) and total conscientiousness ($M = 3.47$, $SD = .727$) ($r(99) = 0.486$, $p = <.001$, 2 tailed). Therefore, the null hypothesis is rejected.

A Pearson correlation coefficient found that there was a moderate negative significant relationship between total satisfaction ($M = 23.38$, $SD = 6.08$) and total neuroticism ($M = 2.93$, $SD = .866$) ($r(99) = -.423$, $p = <.001$, 2 tailed). Therefore, the null hypothesis is rejected.

A Pearson correlation coefficient found that there was no statistically significant relationship between total satisfaction ($M = 23.38$, $SD = 6.08$) and total openness ($M = 3.67$, $SD = .486$) ($r(99) = .034$, $p = .735$). Therefore, the null hypothesis is accepted.

3.3 Qualitative Data Findings

Through the thematic analysis of the data which was gathered from the open-ended question “Would you say your birth-order has impacted positively or negatively or both on your experience of life and why?”, two main themes were discovered for all birth-order groups, including, first-borns, middle-borns, last-borns and only-children. The thematic analysis process for discovering themes was carried out as outlined by Braun & Clarke, (2006). The data was read numerous times and initial codes were noted from the data. From the initial codes, reoccurring themes were discovered in the data and the main themes were created. The two overarching themes were: positives of birth-order and negatives of birth-order. Using extracts from the answers of the open-ended question, each one of the themes will be listed on the following page.

First-borns

Positives of being first-born: First-borns stated that their birth-order had positives, such as, more power:

“Being first-born, I feel I am superior to my siblings, like I have more power over them”.

not having to follow in anyone’s footsteps:

“I feel I can be myself because I don’t have to follow in anyone’s footsteps”.

and having more drive:

“Being first-born has given me more drive, grit and determination to succeed”.

Negatives of being first-born: First-borns stated that their birth-order has negative effects, such as, too much pressure: *“Being first-born had a negative aspect because I was always under a lot of pressure to be a good role model for my brother”.*

and parents being strict.

“My parents have been stricter and tougher on me in comparison to my siblings”.

Middle-Borns

Positives of being middle-born: Middle-borns stated that their birth-order had positives, such as, getting to learn from elders: *“I have many siblings who taught me a lot and always give me good advice”*

Helps you understand different personalities:

“Having siblings and being in the middle helped me understand different personalities”

And less pressure:

“I would say, from my experience, middle-borns don’t feel the same pressures, especially in comparison to first borns”.

Negatives of being middle-born: Middle-borns stated that their birth-order had negative impacts, such as, being overlooked by parents: *“I would say that as the middle-child, I am more forgotten about by my parents in comparison to my siblings”*

And becoming too dependent:

“Being the middle-child, I am somewhat spoiled in the sense that I am used to having things done for me, which makes me more dependent on others”

Last-Borns

Positives of being last-born: Last-borns stated that their birth-order had positives, such as, parents having more patience: *“My parents had much more time and patience to deal with me”*

And more support from elder siblings:

“I view my elder siblings as guides through life who always look out for and support me”.

Negatives of being last-born: Last-borns stated that their birth-order had negatives, such as, being compared to siblings too often: *“Being last-born has a negative effect as I am constantly compared to what came before”.*

And becoming too dependent: *“Because I’m last-born, people do a lot for me, so I have become very dependent and disorganised”.*

Only-Children

Positives of being an only-child: Only-children stated that their birth-order had positives, such as, having their parents undivided attention: *“As an only-child, I was given great amounts of attention from my parents which allowed me to achieve my goals and succeed in my activities”.*

Having independence:

“I learned how to do things for myself and not to be dependent on others”

Having more social skills:

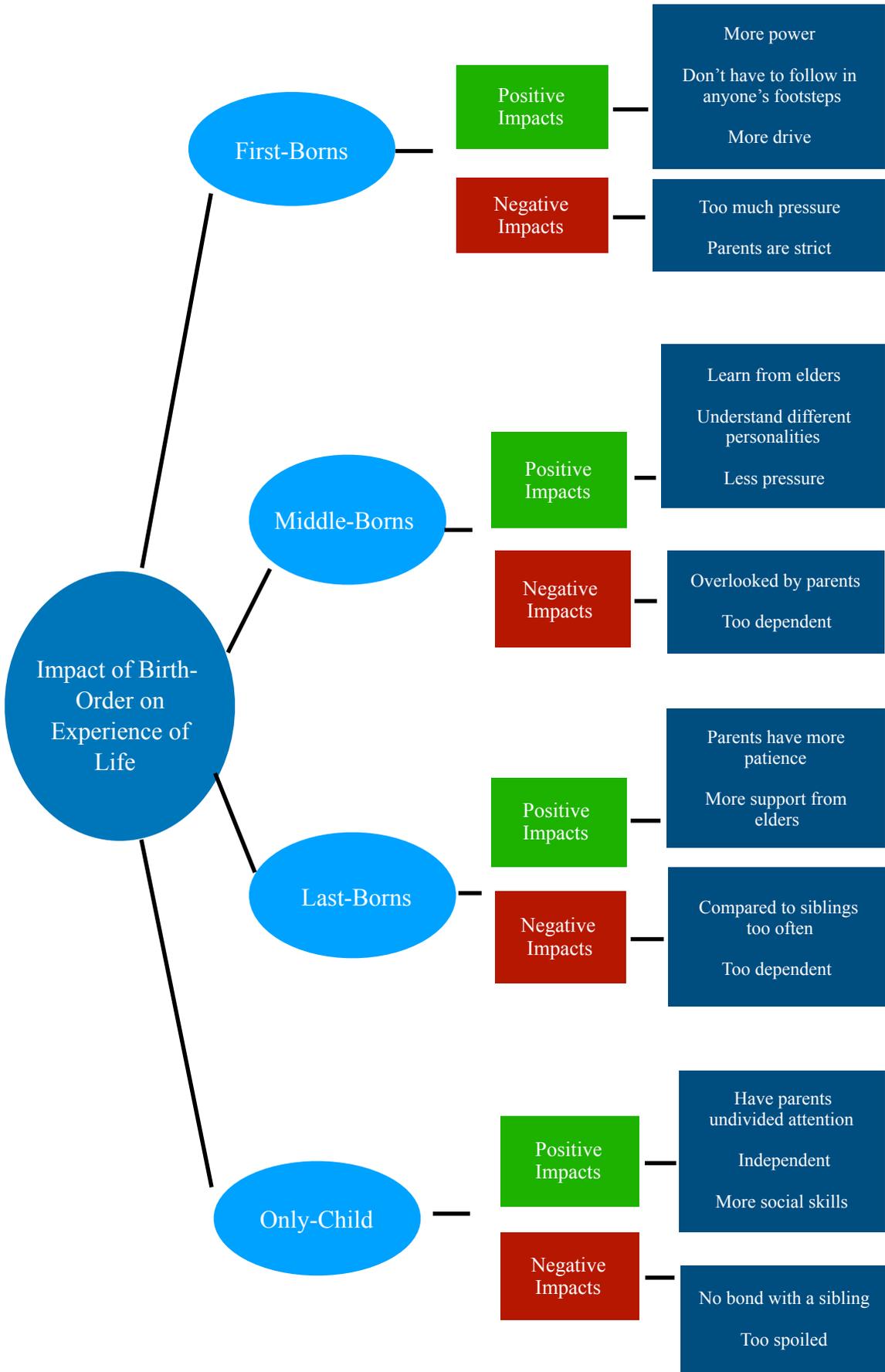
“As an only-child, you are forced to be very social as you don’t have siblings, which builds upon your social skills”.

Negatives of being an only-child: Only-children stated that their birth-order had negatives, such as, not having a bond with a sibling: *“The negative side of being an only-child is growing up alone and not being close to a sibling”.*

And being too spoiled: *“Being an only-child, I got most of what I wanted, which led me to be a little too spoiled”.*

A model of the themes are presented on a mind map on the next page.

Mind Map of Themes



Chapter 4: Discussion

4.1 Overview

The main aim of this study was to examine the impact birth-order and age had on personality and satisfaction with life. Although there has been numerous studies carried out in regard to the effects of birth-order on personality and satisfaction with life, this study was the first to analyse the effects across two generation groups, millennials and generation X. There has been no previous research carried out in Ireland that explores these variables and that also looks at generation groups.

Therefore, this research topic was seen as an important area of study in regard to birth-order and as such, it was selected to be examined.

Alfred Adler (1928) was the first psychiatrist who suggested that birth-order had an impact on one's development and personality. Other researchers, such as Frank Sulloway (1996), agree with Adler's theory and believed that personality traits are evidently different in first-borns, middle-borns, last-borns and only-children. It was his view that children may take on different roles, depending on the position they are born into, in an effort to obtain their parent's interest in them (Sulloway, 1996).

Other researchers, including Diener et al., (2002), have suggested that there are associations between personality and satisfaction with life. The findings of the current study are partly consistent with previous research findings, as extraversion, agreeableness and conscientiousness were found to be positively correlated with satisfaction with life, and neuroticism was negatively correlated with satisfaction with life.

This section will discuss the main results of this study in regard to the four hypotheses that were outlined in the first section. The strengths and weaknesses of the current study will also be discussed and suggestions for possible future research will be made.

4.2 Summary Of Results

Birth-order and personality: Hypothesis 1

Several studies have found that birth-order has an impact on personality traits. Researchers such as, Zajonc et al., (2003) and Badi et al., (2017), have found that first-borns tend to be higher in conscientiousness and neuroticism in comparison to their younger siblings. Additionally, research by, Sulloway, (1996) and Salmon & Daly, (1998) have found that middle-borns tend to be higher in extraversion and agreeableness, in comparison to their siblings. According to Healy & Ellis, (2007), last-borns are more likely to be open to experience, especially in comparison to first-borns. Finally, research by Brophy, (1989) and Badi, (2017), found that only-children tend to be more open to experience and have higher levels of neuroticism.

The first hypothesis of this study suggested that there would be a significant difference between birth-order groups and personality traits. It was hypothesised that first-borns would score higher on conscientiousness and neuroticism, middle-borns would score higher on extraversion and agreeableness, last-borns would score higher on openness to experience and only-children would score higher on neuroticism and openness to experience.

A one-way ANOVA was conducted on the birth-order groups, first-borns, middle-borns, last-borns and only-children, on the sub-scales of personality, which included, extraversion, agreeableness, conscientiousness, openness and neuroticism. The results of this showed no statistically significant differences between birth-order groups and any of the personality sub-scales.

Birth-order and satisfaction with life: Hypothesis 2

According to Hamilton, (1995), satisfaction with life is the amount of happiness one has with one's own lifestyle. Life satisfaction has been under increasing amounts of study, as it is so important in

managing the stresses of today's world. Research conducted by Shao et al., (2013) found that only-children had higher levels of life satisfaction in comparison to those who had siblings.

The second hypothesis of this study suggested that there would be a significant difference in regard to birth-order groups and satisfaction with life levels. A one-way ANOVA was conducted on the birth-order groups, first-borns, middle-borns, last-borns and only-children, on life satisfaction total. The results of this showed no statistically significant differences between birth-order groups and total life satisfaction. However, the findings show that, although not statistically significant, only-children showed slightly higher levels of life satisfaction ($M = 24.67$, $SD = 6.56$) in comparison to first-borns ($M = 22.95$, $SD = 6.29$), middle-borns ($M = 23.32$, $SD = 6.39$) and last-borns ($M = 23.74$, $SD = 5.39$). This finding supports the research carried out by Shao et al., (2013), that only-children have higher levels of life satisfaction.

Birth-order and generation on satisfaction with life: Hypothesis 3

Although there has been many studies carried out in relation to birth-order on life satisfaction, there has been no previous research conducted in Ireland that examines these variables on two generation groups, millennials (18-39 years of age) and generation X (40+ years of age).

The third hypothesis of this study suggested that there would be a significant difference in birth-order and generation groups and satisfaction with life levels.

A one-way analysis of variance (ANOVA) was conducted on the birth-order and generation groups, first-born millennials, middle-born millennials, last-born millennials, first-born generation X, middle-born generation X and last-born generation X on satisfaction with life total. Only-children were not included in this hypothesis test as the sample size was too small (only 1 participant was only-child generation X). The results showed no statistically significant differences on birth-order

and generation groups on satisfaction with life levels. However, the findings show that, although not statistically significant, generation X groups showed slightly higher satisfaction with life levels compared to the millennial groups. Therefore, it is said that those participants who were 40+ years of age had slightly higher levels of life satisfaction, although this was not statistically significant.

Personality and satisfaction with life: Hypothesis 4

It has been suggested that personality correlates with satisfaction with life (Deiner et al., 2002). It has been noted in past research that extraversion had a positive correlation with satisfaction with life (Lucas & Fujita, 2000) and neuroticism had a negative correlation with satisfaction with life (Fujita, 1991).

The fourth hypothesis of this study suggested that there would be a significant correlation between satisfaction with life and personality. It was hypothesised that extraversion, agreeableness and conscientiousness would be positively correlated with satisfaction with life and that neuroticism would be negatively correlated with satisfaction with life.

Several Pearson Correlation Coefficients were conducted on the personality sub-scales and life satisfaction total. The results showed that there was a moderate positive significant relationship between life satisfaction and extraversion, there was a moderate positive significant relationship between life satisfaction and agreeableness, there was a moderate positive significant relationship between life satisfaction and conscientiousness and there was a moderate negative significant relationship between life satisfaction and neuroticism. Therefore, the null hypotheses were rejected for these findings. However, there was no statistically significant correlation between life satisfaction and openness to experience and the null hypothesis was accepted. The findings support the research previously conducted that extraversion is positively correlated with life satisfaction

(Lucas & Fujita, 2000) and neuroticism is negatively correlated with satisfaction with life (Fujita, 1991).

4.3 Other Findings

Through the discovery of themes found through thematic analysis, it was found that the birth-order groups perceive that their position in the family has had impacts on their experience of life. First-borns stated that their parents are strict on them and that a great deal of pressure is placed on them to succeed. This supported previous research that first-borns feel like they have high expectations of them from their parents (Sulloway, 1996). The middle-born participants stated that they sometimes felt over-looked by their parents. This is in support with the literature, as previous research suggests, middle-borns have to share their parents attention throughout their lives, however, first and last-borns experience periods of time when they are treated like only children (Sulloway, 2001). The last-born participants stated that their position in the family has led them to becoming too dependent on others. This supports previous research that last-borns get used to having constant assistance, leading them to becoming too dependent on others (Mairet, 1964).

4.4 Strengths, Weaknesses and Future Research

There was a number of strengths and weaknesses connected to this current study. The limitations of this study could be a contributing factor for the non-significant results.

Although, there has been many past studies that have found birth-order to have an impact on one's personality, there has also been studies conducted that display inconsistent results, similar to that of this study. A previous study that was carried out to analyse the impact of birth-order on personality found similar inconsistencies as the results were not significant (Ha et al., 2011). Birth-order is a vast topic and although one's position in the family is an important factor in the development of an individual's personality and life satisfaction, the particular environment of an individual may also

be a key factor. This study failed to take the individual's particular environment into account, therefore, this may have contributed to the non-significant results.

Additionally, the sample size of this study was quite small, which could have also contributed to the non-significant results. The sample size consisted of 101 participants which were split into four birth-order groups. In comparison to previous studies carried out examining birth-order, this is a much smaller sample size. Within the four groups, first-borns consisted of 44 participants, the middle-born group had 25 participants, the last-born group had 23 participants and the only-child group had only 9 participants. The large difference in the amount of participants in each birth-order group led to an unreliable average.

Furthermore, the age groups were unbalanced in this study. The 18-39 years group made up 75.25% of the participants, whereas the 40+ years group was only made up of 24.75%. This may be due to the fact that the survey was distributed in a college, where not many of the students are 40+ years of age. For future research, sample size should be carefully considered, especially with a study involving birth-order. It is important to have the groups contain similar amounts of participants in order to make the results more reliable.

Another weakness of this study was that it did not include the impact of one's social class. It has been suggested in previous research that not considering environmental factors such as social class may lead to a researcher mistaking differences of an individual's character, which is developed from social backgrounds, with differences due to individual's birth-order (Ernst & Angst, 1983).

A further limitation of this study was due to the fact that some participants were unsure of how to answer the question relating to their birth-order category. The participants were given a choice of

answering with either, first-born, middle-born, last-born or only-child. Some of the participants did not know which category they belonged to. For example, several participants who came second in the family of four children, did not perceive themselves as a middle-child. As such, many participants only perceived themselves as a middle-child if they were born second in a family of three children.

However, this study did have its strengths. There was no previous studies found that examined all the variables of birth-order, personality, age and satisfaction with life. Therefore, this study was beneficial in furthering research in the area of developmental psychology.

The only requirement for individuals to take part in this study was to be over the age of eighteen years. Therefore, this study allowed individuals of any gender, culture or occupation to participate, which can be seen as a strength of this research. The impact of birth-order is topic that can be applied to anyone, which means this was a research study that many people could participate in.

The use of qualitative research was also a strength of this study. The thematic analysis allowed for the researcher to obtain information regarding the participant's personal feelings and reflections on the impact of their birth-order on their life experience. This provided the researcher with a richer sense of how each participant perceived themselves as a result of their birth-order.

A further strength of this study is due to the reliability of the scales used. The Big-Five Inventory and the Satisfaction With Life Scale, both have been noted to be consistently reliable measures. Therefore, using these measures strengthened the validity of the research.

For future research, it would be beneficial to obtain the same number of participants for both the birth-order categories and the age-groups, as within this study, there were large differences in the numbers between these groups. It is suggested that, rather than waiting to see how many participants fall into each category, a maximum target amount of participants should be set for each category. This would allow for more accurate results to be found.

In order to obtain more participants in the 40+ years group, it is suggested that the questionnaire be distributed in more places and not just in a college setting. For future research, it would be beneficial to distribute the questionnaire via social media or online as to gather a wider range of participants.

A final suggestion for future research on this topic, would be to include a more background information, such as social class and culture. Previous research has underlined the importance of taking one's social background into account when examining the impact of birth-order on development (Ernst & Angst, 1983).

4.5 Conclusion

The aim of this study was to examine the impact of birth-order on personality traits and life satisfaction with age. Personality traits were measured using The Big Five Inventory (John & Srivastava, 1999) and life satisfaction was measured using the Satisfaction With Life Scale (Diener et al., 1985). Along with demographic and background questions, these scales were compiled into a survey. This survey was distributed to students attending Dublin Business School, where 101 participants took part. This study showed inconsistencies in comparison to previous research, as three of the four hypotheses were rejected. However, factors contributing to the non-significant results could be the small sample size and the fact that birth-order is such a broad topic with many

complexities. It would not be accurate to say that birth-order does not have any impact on these variables solely based on the results of this study. It is suggested that with possible improvements upon the limitations and weaknesses and an inclusion of environmental and social factors, a future study could provide more accurate and significant results.

References

Ansbacher, H.L & Ansbacher, R.R. (1956). *The Individual Psychology of Alfred Adler*. England, Basic Books.

Badi, J.B. (2017). Personality of Only Children and Children With a Sibling. *The International Journal of Indian Psychology*. V(4).

Baird, B.B, Lucas, R.L & Donnellan, B.D. (2010). Life Satisfaction Across the Lifespan: Findings from Two Nationally Representative Panel Studies. *National Library of Medicine*. 183-203.

Braun, V, & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77-101.

Cervone, D.C & Pervin, L.P. (2016) *Personality: Theory and Research* (13th ed.) Hoboken, New Jersey, John Wiley & Sons

Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.

Diener, E.D, Oishi, S.O & Lucas, R.L. (2002). *Personality, Culture, and Subjective Well-Being: Emotional and Cognitive Evaluations of Life*. 403-420.

Eckstein, D.E, Aycock, K.A, Sperber, M.S, McDonald, J.M, Wiesner, V.W, Watts, R.W & Ginsburg, P.G. (2010). A Review of 200 Birth Order Studies: Lifestyle Characteristics. *The Journal of Individual Psychology*, (66), 409-419.

Eckstein, D.E & Kaufman, J.K. (2012). The Role of Birth Order in Personality: An Enduring Intellectual Legacy of Alfred Adler. *Journal of Individual Psychology*, 68, 60-74.

Ernst, C.E, & Angst, J.A. (1983). *Birth Order. Its Influence on Personality*. Springer-Verlag Berlin Heidelberg.

Fleeson, W.F & Wilt, J.W. (2010) The Relevance of the Big Five Trait Content in Behaviour to Subjective Authenticity. *National Library of Medicine*.

Gilliam, J.G & Chatterjee, S.C. (2011). The Influence of Birth Order and Financial Risk Tolerance. *Journal of Business and Economics Research*, (9).

Ha, T.S, & Tam, C.L. (2011). *A Study of Birth Order, Academic Performance, and Personality*. *International Conference on Social Science and Humanity*. (5) 28-32.

Healey, M.H & Ellis, B.E. (2004) Birth Order, Conscientiousness, and Openness to Experience, Tests of the Family Niche Model of Personality using a Within-Family Methodology. *Evolution and Human Behaviour*, (28), 55-59.

Hertler, S.C & Walla, P.W (2017). Beyond birth order: The biological logic of personality variation among siblings. *Cognent Psychology*, (4).

Hosseinkhanzadeh, A.H & Taher, M.T. (2012) The Relationship Between Personality Traits With Satisfaction with Life. *Sociology Mind*, (3), 99-105.

Howe, N.H & Recchia, H.R. (2014). Sibling's Relationships and Their Impact on Children's Development. *Encyclopaedia of Early Childhood Development*.

Jefferson, T.J, Jeffrey, J.J & McCrae, R.M. (1998). Associations Between Birth Order and Personality Traits: Evidence from Self-Reports and Observer Ratings. *Journal of Research in Personality* (32), 498-509.

John, O.P & Srivastava, S. (1999). The Big Five Trait Taxonomy: History, Measurement and Theoretical Perspectives. *Handbook of personality: Theory and research* (102-138).

Ng, W.N, Mofrad, S.M & Uba, I.U. (2014). Effect of Birth Order on the Differential Parental Treatment of Children. *Asian Social Science*, (10), 132-135.

Paulhus, D.P, Trapnell, P.T & Chen, D.C. (1999). Birth Order Effects on Personality and Achievement within Families. *Psychological Science*, 10.

Realo, A.R & Dobewall, H.D. (2011). Does Life Satisfaction Change with Age? A comparison of Estonia, Finland, Latvia and Sweden. *Journal of Research in Personality*. 45, 297-308.

Rogers, A.T. (2016). *Human Behaviour In The Social Environment: Perspectives on Development and the Life Course* (4th Ed.), Routledge.

Ryckman, R.R. (2008). *Theories of Personality* (9th ed.). Cengage Learning.

Salmon, C.S. (2003). Birth Order and Relationships: Family, Friends and Sexual Partners. *Human Nature*, 14, 73-88.

Shao, Y.S, Yao, X.Y, Li, Y.L & Huang, Z.H. (2013). Personality and Life Satisfaction in China: The Birth Order Effect under the Influence of National Policy. *Personality and Individual Differences*, (54), 536-541.

Soysal, F.S. (2015). A Study on Sibling Relationships, Life Satisfaction and Loneliness Level of Adolescents. *Journal of Education and Training Studies*, (4), 58-63.

Steptoe, A.S, Deaton, A.D & Stone, A.S. (2014). Subjective Wellbeing, Health and Ageing. *The Lancet*. V(385), 640-648.

Sulloway, F.S. (1999). Birth Order. *Encyclopaedia of Creativity*. (1) 189-202.

Sulloway, F.S (1996). *Born to Rebel: Birth Order, Family Dynamics, and Creative Lives*. New York, Pantheon Books.

Sulloway, F.S. (2001). *Birth Order, Sibling Competition and Human Behaviour. Conceptual Challenges in Evolutionary Psychology*, 39-83.

Appendix

Cover Sheet

Examining the Impact Birth Order and Age has on Personality and Satisfaction With Life

My name is Joanne Lynam and I am carrying out research in the Department of Psychology at Dublin Business School as part of the BA Psychology degree requirements. This study will aim to examine if birth order and age have an impact on personality and satisfaction with life. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to participate in this study and taking part involves completing and returning the attached anonymous survey. While the survey asks certain questions that might cause some minor negative feelings, it has been used widely in research. In the case that any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is fully voluntary and so you are not obliged to take part. You may withdraw from participation up until submission.

Participation in this study is anonymous and confidential. Therefore, responses cannot be attributed to any one participant. As a result of this, it will not be possible to withdraw from participation after the questionnaires have been collected.

The questionnaires will be securely kept and the data gathered from the questionnaires will be transferred from the paper record to electronic format and kept on a password protected computer until February 2019 when all data will be removed and destroyed.

Important to note: Completion and submission of the questionnaires means that you are consenting to participate in this study.

Should you require any further information about the research, please contact Joanne Lynam, [REDACTED] [@mydbs.ie](mailto:[REDACTED]@mydbs.ie). My supervisor can be contacted at [REDACTED]

Thank you for taking the time to complete this survey.

Background Questions

What is your birth order? (First-born, Middle-born, Last-born, Only Child?) _____

What age are you? _____

What gender are you? (Male or Female?) _____

First Questionnaire

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.

Disagree
Strongly
1

Disagree
A Little
2

Neither Agree
Nor Disagree
3

Agree
A Little
4

Agree
Strongly
5

I See Myself as Someone Who.....

Q1. Is talkative ____

Q13. Is a reliable worker ____

Q2. Tends to find fault with others ____

Q14. Can be tense ____

Q3. Does a thorough job ____.

Q15. Is ingenious, a deep thinker ____

Q4. Is depressed, blue ____

Q16. Generates lots of enthusiasm ____

Q5. Is original, comes up with new ideas ____.

Q17. Has a forgiving nature ____

Q6. Is reserved ____

Q18. Tends to be disorganised ____

Q7. Is helpful and unselfish with others ____.

Q19. Worries a lot ____

Q8. Can be somewhat careless ____

Q20. Has an active imagination ____

Q9. Is relaxed, handles stress well ____

Q21. Tends to be quiet ____

Q10. Is curious about many different things ____

Q22. Is generally trusting ____

Q11. Is full of energy ____

Q23. Tends to be lazy ____

Q12. Starts quarrels with others ____

Q24. Is emotionally stable, not easily upset ____

- Q25. Is inventive ____
- Q26. Has an assertive personality ____
- Q27. Can be cold and aloof ____
- Q28. Perseveres till the task is finished ____
- Q29. Can be moody ____
- Q30. Values artistic, aesthetic experiences ____
- Q31. Is sometimes shy, inhibited ____
- Q32. Is considerate and kind to almost everyone ____
- Q33. Does things efficiently ____.
- Q34. Remains calm in tense situations ____
- Q35. Prefers work that is routine ____
- Q36. Is outgoing, sociable ____
- Q37. Is sometimes rude to others ____
- Q38. Makes plans and follows through with them ____
- Q39. Gets nervous easily ____
- Q40. Likes to reflect, play with ideas ____
- Q41. Has few artistic interests ____
- Q42. Likes to cooperate with others ____
- Q43. Is easily distracted ____
- Q44. Is sophisticated in art, music or literature ____

Second Questionnaire

Instructions: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

- Q.1 In most ways my life is close to my ideal. ____
- Q.2 The conditions of my life are excellent. ____
- Q.3 I am satisfied with my life. ____
- Q.4 So far I have gotten the important things I want in life. ____
- Q.5 If I could live my life over, I would change almost nothing.

Final Page

(In your own words) Would you say your birth-order has impacted positively or negatively or both on your experience of life and why?

Thank you

Support Services Contact Information

Samaritans: contact no. 116-123

Aware: contact no. 1800-80-48-48