Childhood Imaginary Friends and Adult Personality Traits
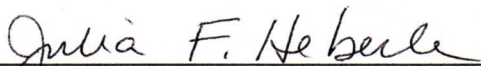
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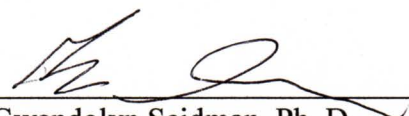
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Childhood Imaginary Friends and Adult Personality Traits

Jessica deOrnellas

Senior Thesis

Albright College

Abstract

The following study examined the relationship between having an imaginary friend in childhood and one's personality traits as adults. This relationship was examined through measures that assess personality, attachment, loneliness, and self-esteem. Participants were divided into two groups: those with and those without imaginary friends. Differences were examined between the two groups and also within the group of participants with imaginary friends. Findings showed that those with imaginary friends tended to have somewhat lower self-esteem than those without imaginary friends. Within those who reported having an imaginary friend, the strength of this relationship was associated with higher levels of neuroticism and loneliness, and lower levels of self-esteem. In general, these differences, while significant, were small, suggesting that those who had an imaginary friend as a child are not all that different in adulthood from those who did not have an imaginary friend.

Keywords: imaginary friends, personality traits, adult personality

Childhood Imaginary Friends and Adult Personality Traits

Imaginary friends are a staple characteristic of childhood. Within our culture, we have even gone so far as to base stories, movies, and comic strips on the existence of imaginary friends; think of *Calvin and Hobbes* and *Winnie the Pooh*. However, there is little research on the topic. The research that does exist focuses primarily on the form of these imaginary friends in childhood and the characteristics of the children who create them. There is no existing literature on connecting imaginary friends in childhood to adult personality or behavior. This will be the focus of the current research.

Characteristics of Imaginary Friends

The two leading researchers are Gleason and Taylor, who defines imaginary companions as:

> "An invisible character, named and referred to in conversation with other persons or played with directly for a period of time, at least several months, having an air of reality for the child but no apparent objective basis. This excludes the type of imaginative play in which an object is personified, or in which the child himself assumes the role of some other person in his environment," (Taylor 1999, 10).

This definition is limiting in that objects, such as toys or dolls, even given and name and treated as a living being are not considered an imaginary friend. Imaginary friends are limited to those that exist mainly within the mind of the child. However, this definition is vague in descriptions of imaginary friends because there is such a large spectrum of imaginary friends.

Think of Hobbes of *Calvin and Hobbes*, Christopher Robin's bear, Winnie the Pooh, or even Tony, Danny's imaginary friend that lived in his finger in *The Shining*. Imaginary friends have held our interest for a long time, maybe because of the great variety of these imaginary

companions, as clearly detailed through these three examples in pop culture. Studies about children and their imaginary friends have shown just as many varieties and intriguing features to actual real imaginary friends. Imaginary friends come in a variety of genders, ages, sizes, colors, and species. Some are humans, animals, monsters, aliens, or objects. Previous research shows a wide spectrum of diverse imaginary companions. There is Rose, a nine-year old squirrel, and Skateboard Guy, an eleven-year old boy who lives in the child's pocket (Taylor et al, 2004). Gleason and colleagues interviewed a child with an imaginary child named Maybe who was able to switch gender, and another with a herd of imaginary cows that came in a variety of sizes and colors (Gleason, Sebanc, & Hartup, 2000). Taylor has done a lot of research on imaginary companions, and has in her research encountered such oddities as Baintor, an invisible boy who lives in bright lights, Derek, a two-foot tall, ninety-one year old man, and Bobo, a monkey who plays hide-and-seek (Taylor, 1999).

The vast variety of characteristics of imaginary friends makes it difficult to simply describe any one imaginary friend, along with the fact that these made up friends have a tendency to be unstable. Many times imaginary friends change and develop as the child does. Some change on a regular basis. Taylor gives the example of a young girl who had two identical imaginary birds, Nutsy and Nutsy; one boy and one girl. Upon the first interview with the child and her parent, it was revealed that there were two imaginary birds who had places set at the dinner table every night. The next interview revealed that there was in fact as many as ten imaginary birds, all named Nutsy. During that same interview, the child was asked again about the gender of the birds, and reported that there was one female and one male (Taylor, 1999). This example illustrates how imaginary friends have the propensity to change various characteristics, and are rather unstable entities.

Motivations for Imaginary Friends

Just as imaginary friends differ in the appearances and characteristics, they differ in their creations, purposes, and disappearances as well. The leading reason that children create an imaginary companion is simply for fun and entertainment (Taylor, 1999). It gives them someone to play with when other children are not readily available and parents are busy. However, there are some children who have more sophisticated motives for creating an imaginary friend. In her book, *Imaginary Companions and the Children who Create Them*, Taylor explores numerous other reasons why children develop imaginary playmates. Many times children create imaginary friends to compensate for changes in family situations. If a baby is born and parents' attention is taken off the child, if divorce or death occurs, an imaginary friend can become an ally for a child who is feeling lonely in dealing with family changes. Taylor interviewed one child who never knew his father and thus his imaginary friend took on the role of an imaginary father (Taylor, 1999).

Sometimes children use imaginary friends to help them overcome fears; for example, creating an imaginary friend to stay with them at night if they are afraid of the dark, or creating imaginary animals to help overcome the fear of real animals (Taylor, 1999). Others create imaginary friends in order to do the things they cannot. Taylor reports on one child who created a counterpart to stay up late when the child could not, and on another child who was blind and created a companion to see for him (Taylor, 1999). Many times imaginary companions take on the characteristics are given the characteristics and attributes that the children wish they possessed. In the same children use imaginary friends to do the things they want to do, they also use these creations to take the blame for things they have done (Taylor, 1999). Children often use

imaginary friends as scapegoats and blame them for the things they are afraid they will get into trouble for; like breaking a lamp or spilling a drink.

Just as their appearance can be caused by a variety of reasons, so can their disappearance. For many who look back on their imaginary friend, they cannot recall how or why the friend disappeared. They just know that at some point, the imaginary friend was no longer a part of their life. In other cases, however, there are reasons why the imaginary friend ceases to exist. The most common reason is that the child makes other friends. They are no longer lonely, or are spending more time with playmates and do not need the company of an imaginary friend any longer (Taylor, 1999). For many, the entrance into elementary school, gives children more playmates and therefore less of a need for an imaginary companion. Others abandon their imaginary friends because of disapproval they receive from others; either embarrassment around other peers or disapproval from adults in their life (Taylor, 1999). While most do not clearly remember the disappearance of their imaginary friend, there are many children who create stories to explain why their friend is no longer around. Taylor interview children who reported that their imaginary companion had died, moved away, or retired from being an imaginary friend (Taylor, 1999).

Characteristics of Children who Create Imaginary Friends

As diverse and complex as the imaginary friends are, the children who create them are just as unique. There is no one set definition of a child who possesses an imaginary friend. While it is usually estimated that the most common age of children with imaginary friends is age three to five years old, researchers surprised many in finding that children even as old as six and seven years old are still actively creating and playing with imaginary friends, (Taylor et al, 2004).

Research has shown that there are a small number of imaginary friends that are created in later childhood or adolescence, and some even persist into adulthood (Taylor, 1999). Although imaginary friends exist for both boys and girls, multiple studies have found that more girls than boys possess imaginary friends at younger ages (Gleason & Hohmann, 2006). The gender difference is not as prominent in older children (around ages six and seven), (Taylor, 1999) which implies that boys create imaginary companions at an older age. While any child is susceptible to creating an imaginary friend, it does appear more likely that oldest siblings or only children are the leading creators of imaginary companions (Gleason, Sebanc, & Hartup, 2000; Taylor, 1999). However, Gleason found in a later study that 85% of the children possessing imaginary friends in her study had siblings, either older or younger, (Gleason, 2002).

It is estimated that about 26% of children have imaginary children at one point or another (Gleason & Hohmann, 2006). While this number is not extremely high, it is high enough to make it interesting that there is not much previous research on this area of childhood. It is also interesting to note that although there is a significant number of children who have imaginary companions, this phenomenon was looked at rather negatively in the past. Many parents have discouraged children from continuing to talk about and play with imaginary friends for a variety of reasons. Some say that imaginary play is a form of lying because the children are associating with a being that is not true and are thus creating stories and situations around that being (Taylor, 1999). Others (although few) have associated imaginary friends with idleness, which is a sign of the devil and evil (Taylor, 1999). Traditionally, it was assumed that those children who have imaginary friends possess some sort of personality flaw; however, little evidence has been found to support this claim (Taylor, 1999).

Despite previous misconceptions and negative attributes of imaginary friends, more recent research has found positive associations between imaginary friends and the children who possess them. Contrary to popular belief, it has been found that preschool children who create and interact with an imaginary friend are actually more outgoing and less shy compared to peers without imaginary friends (Taylor, 1999). In fact, in most cases, children with imaginary friends have just as many peer relationships and playmates as those without imaginary friends (Gleason & Hohmann, 2006). There is some research that even suggests that those with imaginary friends are actually more social than children without imaginary friends (Gleason, Sebanc, & Hartup, 2000). This research suggests that children who have imaginary friends would not lack real friends or be any more lonely that those children who do not have imaginary friends. It is possible that these children may even be considered less lonely than other children for the simple fact that they always have a companion: their imaginary friend.

The relationships that children have with their imaginary friends are actually similar to the relationships they have with real-life friends. Gleason and Hohmann (2006) studied the social provisions of different types of friendships in childhood friendships. They found that in terms of conflict, power, instrumental help, and nurturance there was no notable difference between friendships with close childhood friends and imaginary friends. Additionally, they do not envision perfect relationships with their imaginary friends. Many times children claim to argue or have falling outs with their imaginary friends. They do not always imagine that the imaginary friend does exactly as they want and that conflicts exist (Gleason, 2002). This could suggest that children base their relationships with imaginary friends off of real life relationships.

Gleason's study on the social provisions of children's relationships gives a more detailed look into the relationships with imaginary friends as compared to other relationships in the

child's life. It is suggested that children with imaginary friends actually are better at distinguishing between the nature of friend-to-friend relationships and child-to-parent relationships than those without imaginary companion. In studying the relationships of children with imaginary friends it was found that parents were associated more with power and instrumental help, while friends were more associated with conflict (Gleason, 2002). The most interesting comparison from this study was seen in the social provision, nurturance. Children without imaginary friends are more likely to associate nurturance with parents, while those with imaginary friends are more likely to associate nurturance with their imaginary companions (Gleason, 2002). While not much reason is given for this intriguing finding, it could be that children without an imaginary friend do not differentiate between friends and parents in terms of social provisions in the same way that those with imaginary friends do. Additionally, those that do have imaginary friends may view their imaginary friends, their creation, in the way a parent may view a child and that is why they associate nurturance with the imaginary companion. In a sense, they take on the role of a parent. It has been suggested that some children actually create imaginary friends in attempts to give them someone to nurture and take care of, which would make them more confident and independent (Taylor, 1999).

If it is the case that the children actively take on the role of a parent when it comes to their imaginary friends, it would have to be assumed that these children had positive bonding experiences with their parents. They would have to learn what it is to be nurturing to a dependent, which they would learn from their parents. Having positive bonding experiences would lead to positive attachments in life.

Being that these children seem more able to take on the role of another, more able to see relationships from another's point of view, there is reason to believe that they may have a more

mature theory of mind than other children. Theory of mind is the ability to infer mental states in others (Wimmer & Perner, 1983). In other words, theory of mind is the ability to recognize that others are able to think, believe, know, pretend, etc. something that may or may not be similar to one's own mental states. Some research shows that children with imaginary companions have a more advanced theory of mind. Taylor and associates (2004) found that the theory of mind and emotional understanding of four year olds with imaginary friends is almost at the level of most six or seven year olds.

In order to have an imaginary friend, a child must completely imagine a whole other being and relationship with that being. The child is responsible for everything within that relationship; every memory, every game, every conversation, and every argument or disagreement. In order for a child to imagine a whole relationship, that child must have a good concept of emotions, thoughts, and mental states of others. Perhaps the reason that children with imaginary friends have a more advanced theory of mind is because they practice imaginary mental states of others with their imaginary friends. After having to create the mental states of an imaginary companion, it is reasonable to believe that these children would be better able to identify mental states in others.

These children also do better on attention focusing and self-entertainment tasks. However, these difference narrowed by elementary school age (Taylor, 1999). There is some small correlation between imaginary friends and intelligence. While it was once assumed that those with imaginary friends are those of higher intelligences, that has only been shown true with verbal intelligence (Taylor, 1999). Children that engage in any type of fantasy play, including imaginary friends, have been shown to perform better in memory and story-telling tasks (Saltz & Johnson, 1974), supporting the claim of higher verbal intelligence. Despite lack of evidence

higher intelligences aside from verbal, it is known that children with an IQ well below average are much less likely to create an imaginary friend (Taylor, 1999).

Another classic assumption is that children with imaginary friends are more creative than their counterparts. While the slight differences in creativity that were found do favor those with imaginary friends, the differences are not very significant (Taylor, 1999). It is important to remember though that there are various ways to express creativity and creating an imaginary friend is only one of those ways. Therefore, even the most creative of children may choose to express their creativity in other ways (Taylor, 1999).

Although there is no research to link imaginary friends with self-esteem, it is an interesting possible correlation, and thus will be a factor in this study. It is possible that possessing an imaginary friend could boost a child's self-esteem. Creating an imaginary friend gives the child a permanent companion, someone who the child will always be accepted by. Having a friend that is always accepting of the child, even if that friend is imaginary could be a self-esteem boost. The child always has a friend whom they "fit in" with. Additionally, as studied in Gleason's (2002) study on social provisions, children with imaginary friends may become more confident and independent as a result of creating an imaginary friend that they must take care of in a sense, which could also boost their self-esteem.

Personality

After examining the literature on imaginary friends and the children who create them, the question for this current study becomes; what is the correlation between an imaginary friend in childhood and personality in adult life. To consider that a correlation exists at all, there must first

be a clear understanding of personality. How is it measured and how stable is it across a life

span?

The Five Factor Model, (Big Five Personality Traits) is one of the most accepted models

of personality in current psychology. McCrae and Costa (1997) have a great amount of research

on this topic and have created a generally accepted view on universal personality. In their

research, McCrae and Costa administered personality scales in a variety of languages across

many countries and culture. This research was successful in demonstrating that personality (at

least the five big personality traits) are universal and supersede culture or language. These five

universal personality traits are identified as: Neuroticism versus Emotional Stability (N),

Extraversion or Surgency (E), Openness to Experience or Intellect, Imagination, or Culture (O),

Agreeableness versus Antagonism (A), and Conscientiousness or Will to Achieve (C). It is these

five traits that are suggested to be universal. The Big Five Personality Traits will be used in this

current study to assess adult personality.

There is evidence that personality is stable across an individual's lifespan. Ferguson

(2010) conducted a meta-analysis of personality trait stability in both normal personalities and

personality disorders. He looked at the personality of participants ranging from early childhood

to age 83. This research suggests that personality as a whole is more stable across a lifespan than

previously believed. Although there is a peak of stability (which Ferguson suggests is around age

30), that is not to say that personality is greatly unstable prior to that peak age. Ferguson

indicates that personality become increasing stable over a life time (until peaking at age 30), but

is still considered moderately stable even in early childhood (Ferguson, 2010). Based on this

evidence it is reasonable to believe that there are some personality traits that are constant within

a person throughout their lifetime.

In Hampson and Goldberg's (2006) study on personality traits, the Big Five Personality measures were considered and compared over the forty years between elementary school and midlife. Their findings differed greatly between the five different traits. It was found that extraversion, conscientiousness, and openness were all significantly stable over the course of a lifetime, but neuroticism and agreeableness were not. Although there was a significant finding for openness, it did not relate nearly as high as extraversion and conscientiousness . Allemand, Steiger, and Hill (2013) found similar results. Although their study did not follow personality traits from childhood through adulthood, they did find that of the big five personality traits, extraversion remained most stable across a lifetime (young adulthood to old age).

Since extraversion is closely related to social relations and it has been found that children possessing imaginary friends tend to be more social, more outgoing, and have better peer relationships (Taylor, 1999; Gleason, Sebanc, & Hartup, 2000), it is reasonable to assume that those who possessed imaginary friends as children still rate higher on the extraversion scale as adults. The hypothesis of the current study is that those who had an imaginary friend in childhood will be more extraverted and sociable as adults.

Three goals in addition to the hypothesis will be addressed in the current study. 1) A comparison between this participant group and groups of previous research in regards to imaginary friends will be addressed. 2) A comparison between the participants in this study with imaginary friends and participants without imaginary friends will be studied. 3) A within group study will be conducted to evaluate differences within the groups of participants who had an imaginary friend. These comparisons to previous research, to the two separate participant groups, and within the group of participants with imaginary friends will be evaluated on the basis of four variables: personality (according to the Big Five), self-esteem, loneliness, and attachment.

Method

Participants

To find participants, an email containing a brief introduction to the purpose of the study and a link to the survey was sent acquaintances of the researcher. The researcher asked these participants to share the survey with acquaintances of theirs and in this process the snowballing effect was used to gather as many participants as possible.

In total, 170 responses were gathered. One participant was eliminated for not agreeing to the informed consent and another 12 were eliminated for failing to complete the whole survey. Of the remaining 157 participants, 48 were male, 107 were female, and the remaining two chose not to answer. The average age of participants was 29.6 with a high age of 74 and a low age of 18. Forty-six participants reported that they did at some point have an imaginary friend; eight males and 38 females.

Materials

Several assessment materials were used to access participants on different traits including: attachment (Bartholomew and Horowitz Attachment Interview (Bartholomew & Horowitz, 1991)), self-esteem (Coopersmith Inventory (Coppersmith, 1981)), loneliness (UCLA Loneliness Scale (Russell, Pepiau, & Cutrona, 1978)), and personality (Big 5 Personality Scale (John & Srivastava, 1999)). Additionally, an adaptation of Hurlock's Imaginary Playmate Questionnaire (Hurlock & Burstein, 1932) was used to gather info on the imaginary friends of participants who indicated that they did have imaginary friends. All of these assessment tools were administered through an online survey.

The Bartholomew and Horowitz Attachment Interview measures attachment styles. Participants are asked to choose the description that they most identify with in terms of their relationships with others. There are only four options given; one to represent each attachment style: secure attachment, dismissing-avoidant attachment, preoccupied attachment, and fearful-avoidant attachment (Bartholomew & Horowitz, 1991).

The Coopersmith Inventory, used to assess self-esteem, includes 25 items. Each item is a statement and participants indicate whether each item is either "like me" or "unlike me". These items include such examples as: "I find it hard to talk in front of a group." "It's pretty tough to be me," and "My family understands me." For each item that the participant answers in a positive way, a point is assigned, and the points are added together. That number is then multiplied by four to give a total self-esteem score, ranging between 0 – 100 (Coppersmith, 1981).

The UCLA Loneliness Scale measures loneliness by asking 20 questions that are answered on a Likert scale. Participants must respond how often they feel a certain way by indicating "never", "rarely", "sometimes", or "always". Examples of the questions included on the UCLA Loneliness Scale are: "How often do you feel there is no one you can turn to?" "How often do you feel shy?" and "How often do you feel you have a lot in common with the people around you?" (Russell et al., 1978).

The Big 5 Personality scale measures personality based on five dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experiences. This assessment tool is comprised of 45 items that are answered on a Likert Scale. Items are given and the participant must indicate how much they agree with that statement in terms of themselves. Some examples of items include: "Is talkative," "Has a forgiving nature," "Is a reliable worker," "Can be moody," and "Prefers work that is routine" (John & Srivastava, 1999).

For this study, an adaptation of Hurlock's Imaginary Playmate Questionnaire was created to gather information about participants with imaginary friends. Some questions were about the nature of the imaginary friend and asked such questions as what the species, gender, and age of the imaginary friend was. Participants were asked how old they were at the time the imaginary friend was created and disappeared and what caused the creation and disappearance of the imaginary friend. Other questions were asked about the nature of the friendship between the participant and the imaginary friend, such as if the participant talked aloud to the imaginary friend or if the participant preferred to play with the imaginary friend over other children (Hurlock & Burstein, 1932).

Procedure

Participants were sent a link via email to the survey. First, an introduction page about the study was presented, followed by an informed consent page. Once participants agreed to the informed consent, they were asked a series of demographic questions including age, gender, and race. They were also asked about their childhood playmates through questions pertaining to how many siblings they had, if they were enrolled in daycare, and if there were other children with whom they regularly associated. Last in that particular series of questions, participants were asked if they had an imaginary friend as a child. This question served as a branching question. If participants indicated that they did have an imaginary companion, they were then asked to answer questions about that imaginary companion. If they indicated that they never had an imaginary friend, the questions about imaginary companions were bypassed and they were directly brought to the other assessment questionnaires to answer.

Participants who indicated that they did have an imaginary friend were asked to answer questions pertaining to that relationship. These questions were adapted from Hurlock's Imaginary Playmate Questionnaire. First there were questions about the friend in terms of descriptions and characteristics. Following, there were questions about the relationship between participant and imaginary companions, e.g., what did they do together, did the participant talk to the imaginary companion, did others know of the existence of the imaginary companion, etc. Finally, questions about the disappearance of the imaginary companion were asked.

After the imaginary playmate questionnaire, participants were asked to complete the other assessment tools. First, they were asked about their personality through the Big 5 Personality Scale. Then they were asked about loneliness by the UCLA Loneliness Scale, followed by self-esteem through the Coopersmith Inventory, and finally they were presented with the Bartholomew and Horowitz Attachment Interview. After all of these assessment questions were answered, a debriefing page was displayed, reporting to the participants the nature of this study, thanking them for their participation, and providing them contact information in the event that they had any questions or concerns.

Results

Descriptive Information

Participants were divided into two groups: those with imaginary friends and those without. Of the 157 participants, 46 reported having at least one imaginary friend during childhood (29.2%). In order to measure the relationship participants had with their imaginary friends, an imaginary friend score was calculated based on the imaginary friend questions. Only questions that measure the quality of the relationship were included in this score. So questions

about the characteristics of the imaginary friends (i.e. species, age, gender, etc.) were not included. Questions that pertained to the why the imaginary friend was created and why he/she disappeared were also not included in the calculation of the imaginary friend score. After scores were calculated, a score range of 4 to 16 was found with a mean of 10 ($SD = 2.56$).

Of the participants that reported having imaginary friends, eight were male (17%) and 38 were female (83%). A chi-square test was conducted, showing that there is a significant relationship between gender and whether or not the participant had an imaginary friend, $\chi^2(1) = 5.640$, $p = .018$. Age of onset (creation of the imaginary friend) shows a trend toward younger children; 15% of children with an imaginary friend were within school ages (age six and up), and 83% of the children were under school age (one did not answer). Results show no significance in terms of siblings or birth order; 50% of the participants with imaginary friends are only children or oldest siblings. A chi-square test was conducted for siblings and imaginary friends, which also showed no significance in terms of siblings or birth order, $\chi^2(1) = 2.298$, $p = .130$.

The results showed variation in the imaginary friends created. There were 30 human imaginary friends, 13 animals, and 3 others (including objects and humanoid animals). Some were based on movies or story characters like the prince from *Swan Princess* and Harry Potter (see Table 1 for more examples). The reasons that children created their imaginary friends were categorized into positive, negative, and neutral reasons; 46% of participants indicated a positive reason (e.g., just coming naturally from imagination), 33% negative, (e.g., being lonely or after being scolded) and 22% neutral (e.g., do not remember). The same categorization was used to describe the reason for the disappearance of the imaginary friend. One participant chose not to answer, and an additional two reported that they still have their imaginary friends. Results showed that 65% of participants gave positive reasons (e.g., making friends or beginning school)

for the disappearance of their imaginary friend, 13% gave negative reasons (e.g., disapproval from others or embarrassment), and 15% gave neutral reasons (e.g., forgot about the imaginary friend or found other ways to entertain oneself).

Comparison between those with and those without imaginary friends

A set of t-tests were conducted to compare the personality differences between those with and those without imaginary friends (See Table 2). The test compared scores on loneliness, self-esteem, and all five traits of the Big Five Personality Inventory: extraversion, agreeableness, conscientiousness, neuroticism, and openness. Then the Bonferroni correction was used to correct the alpha level for the comparison of these two groups. That resulted with a .007 alpha level. The only significant findings were in self-esteem $t(155) = -3.074$, $p < .007$. Participants who reported having an imaginary friend appear to have a lower self-esteem comparatively to those who did not have an imaginary friend in childhood. A chi square test of independence was conducted between attachment and imaginary friend statuses and was found to be not significant; $\chi(4) = 7.242$, $p = .124$.

Individual differences in participants with imaginary friends

A correlation analysis using Pearson's R was conducted to show how the personality, self-esteem, and loneliness scores compared to the imaginary friend scores within the group of participants who had imaginary friends (See Table 3). The significant findings were within self-esteem, neuroticism (from the Big Five Personality Scale), and loneliness. Those with a higher imaginary friend score (suggesting that they had a more salient relationship with their imaginary friend) appear to have lower self-esteem, $r = -.440$, n = 46, $p < .001$ (See Figure 1); are more

neurotic, *r* = .458, n = 46, *p* <.001 (See Figure 2); and are lonelier, *r* =. 431, p = 46, *p* <.001 (See

Figure3) than those with a lower imaginary friend score.

Discussion

Descriptive Information

When assessing the characteristics of the imaginary friends presented in this study, much

of the former literature is supported. Previous research shows that characteristics of imaginary

friends are diverse and the imaginary friends in this study support that. Some were humans, some

animals, some objects, and one humanoid animal. Additionally, previous researchers generally

agree that there is no one specific reason for creating imaginary friends, but that it is usually not

for negative reasons. Results from the current study support previous research. Few participants

indicated a negative reason for creating an imaginary friend, most being lonely or wanting a

sibling; one was after the child's father passed away.

Researchers who have previously studied children who create imaginary friends have

found some trends that are supported in the current study. Generally more girls than boys create

imaginary companions, especially at younger ages (Gleason & Hohmann, 2006), which is

supported by this research, in which much more girls were seen to have imaginary friends than

boys. While more current literature indicates that older children are just as likely to have an

imaginary friend as a younger child, the original research claims that imaginary friends are more

common in pre-elementary school-aged children (Taylor et al, 2004). The older assumption is

supported by the results of this study; most of the children who had imaginary friends were

below school age (ages under six). Almost all previous research seems to be consistent with the

finding that generally only children or oldest siblings are more likely to create imaginary friends

(Gleason, Sebanc, & Hartup, 2000; Taylor, 1999). However, here the results show no significance in terms of siblings. Only half of the participants with imaginary friends are only children or oldest siblings.

Comparison between those with and those without imaginary friends

Previous literature does not document any long-term harm for those children who have imaginary friends as a child. However, no previous research has looked at how childhood imaginary friends correlate to adulthood. As far as childhood goes, literature has suggested that imaginary friends could be a benefit to childhood personalities (Taylor, 1999), and also that personalities are relatively stable over a lifetime (Ferguson, 2010). This would suggest that imaginary friends should be a benefit to adult personalities as well.

When comparing the adult personalities of those who had an imaginary friend as a child to adult personalities of those who did not have an imaginary friend as a child, only one significant difference was found, suggesting that those with and those without imaginary friends are not much different. The only significant finding was that those who did have an imaginary friend appear to have a lower self-esteem than those who did not have an imaginary friend.

The results suggest that those who possessed an imaginary friend as a child have lower self-esteem as adults (although it was a small effect that was found), which challenges the speculations made about imaginary friends and self-esteem made in the introduction. There is no previous research that makes a clear connection between imaginary friends and self-esteem. Taylor (1999) does suggest that many time children create imaginary companions with the personality traits that the children wished they possessed. For example, a child who wishes that he/she was brave would create an imaginary friend who is afraid of nothing. That imaginary

friend would be the bravest person that the child knows. By creating imaginary companions that possesses every trait the child wishes he/she possessed, the children would never be able to compare to the imaginary friend. The child would never be as good as the imaginary friend; the friend would always be braver, smarter, stronger, etc. In these cases, it is plausible that a child's self-esteem would be lowered. The imaginary companion would always be better than the child, which would affect the child's self-esteem.

A lower sense of self-esteem in those with imaginary companions could also stem from others' perspectives of the imaginary friends. While some parents welcome the addition of an imaginary friend in their child's life, others do not approve. One of the reasons that Taylor (1999) references for the disappearance of an imaginary friend is parental disapproval. This is especially true once children begin to reach school age. Once children begin elementary school and have more peers and classmates to play with, it is not as acceptable to have an imaginary friend, and parents may express that disapproval to their children. Other children may also have negative attitudes toward a child still having an imaginary friend, and may tease or bully children who openly reference an imaginary friend. This form of disapproval in regards to an imaginary friend could have a negative effect on self-esteem. However, is must be noted that not all children receive this kind of negative feedback for having an imaginary friend. Only three participants with imaginary friends in this study, report any kind of negative feedback from others about the imaginary friend.

Individual differences in participants with imaginary friends

The relationship of the participant with his/her imaginary friend score was examined using the imaginary friend score. A higher imaginary friend score would suggest a stronger more

salient relationship with the imaginary friend. This was judged by scoring how often the participants reported playing with the imaginary friend, choosing the imaginary friend over other playmate, talking out loud the imaginary friend, and if others knew of the existence of the imaginary friend.

Within this group, the above finding about self-esteem is further supported. Those with a stronger relationship with their imaginary friend also show lower self-esteem scores. This could be explained by the suggestions already made about self-esteem in the previous section. Consider also, that those children who were more dependable of their relationship with the imaginary friend and who focused a lot of attention on the imaginary friend, may have receive more negative feedback about the relationship that those with lower imaginary friend scores. This could account for the significant finding that those with higher imaginary friends score are associated with lower self-esteem scores.

Loneliness shows a positive correlation with imaginary friends when the imaginary friend score is high. There is no noticeable effect of loneliness and imaginary friends when comparing those with to those without imaginary friends, but when comparing low to high imaginary friend scores, the results suggest that those with a higher score, who have a more salient relationship with the imaginary friend, have a greater tendency toward loneliness. This finding in contradictory to existing literature which suggests that having an imaginary friend is associated with more sociable children (Taylor, 1999). However, these children may have a higher likelihood of loneliness because they spend too much effort on their relationship with their imaginary friends and not enough on relationships with peers. So, while an imaginary friend could act as a training mechanism for real-life friendships (Gleason, 2002), too much dependence on the imaginary friend could divert attention away from real-life relationships and

thus cause loneliness. This is an interesting result considering only just over half of the participants with imaginary friends in this study indicated that they preferred playing with an imaginary friend over peers (either all the time or sometimes). The remaining almost half of the group indicated that they preferred playing with peers or other children over their imaginary friends.

To further examine the relationship between imaginary friends and loneliness, the attachment measurement was considered (See Figure 4). The results of this study show that children who scored low on the imaginary friend score were of the secure attachment category. However, those with higher imaginary friend scores were likely to fall into the preoccupied or fearful-avoidant attachment styles. The preoccupied attachment style describes individuals who want close emotional relationships with others but feel that others are not as comfortable being as close to them. The fearful-avoidant attachment style describes individuals who are uncomfortable being too emotionally close to others out of fear of trusting others. Both of these attachment styles are descriptions of people who may be lonely, furthering the relation of loneliness to high imaginary friend scores.

Neuroticism is also positively correlated with imaginary friend scores, showing that those with higher imaginary friend scores also have higher scores in neuroticism. Neuroticism is a measure of emotional stability/instability; or in other word, how different people respond to negative emotions such as sadness, anger, fear, guilt, or anxiety. Those who score high in neuroticism tend to be nervous, insecure, worry a lot, and have a low self opinion (McAdams, 2006). Again, no existing literature compares the effects of imaginary friends on neuroticism. However, it is possible that imaginary friends serve as some coping mechanism for children. Imaginary friends are constant companions that are available whenever the child wants/needs

them. Even when everyone else is busy or no one else is around to listen to the child's problems, the imaginary friend is. Using the imaginary friend as such a mechanism, could give them an outlet to voice their concerns and to lessen neurotic thoughts and behaviors. However, if a child comes to rely too heavily on the imaginary friend (signified with higher imaginary friend scores), the reverse could become possible. Perhaps the child begins to rely too much on the relationship with the imaginary friend and not enough on real-life relationships. Perhaps the child begins to expect too much out of this relationship with the imaginary friend and when that relationship falls short of their expectations, they become more neurotic.

Limitations

Few significant findings were found within this study relating imaginary friends to adult personality traits. One limitation from this study comes from the creation of the imaginary friend score. The imaginary friend score was created by the researchers for the purpose of this study in accordance with the questionnaire used for this study. The imaginary friend score does not come from a tested formula. Limitations could have resulted from the nature of the experiment. All measures used were self-reported inventories, which means research relies on participants to be truthful when reporting on themselves. To further understand the findings presented here it would be beneficial to conduct a longitudinal study to compare the personalities of participants with imaginary friends as children and as adults.

Conclusions

In conclusion, although few significant findings were found, no exceedingly negative findings about those who possess imaginary friends. Although some negative personality traits

were more associated with higher imaginary scores, the results are ambiguous considering the

nature of the imaginary friend score. When viewed as a whole, the study suggests that those with

imaginary friends in childhood to not differ very much in adult personality traits than those

without imaginary friends in childhood.

Table 1

Examples of Imaginary Descriptions of Imaginary Friends

Description
Peter was an adult male with blonde hair, a black suit, and sharp teeth.
A herd of over 20 imaginary horses, each with his or her own personalities.
Gentle, patient grizzly bear.
She was a super hero.
Dark haired and a warrior.
I called him Monkey Man because that is what he resembled. He had blue and brown fur, and gold eyes.
He was a wizard bear, named Max.

Table 2

Means and standard deviations of personality scores for participants with and those without imaginary friends

| Measure	Imaginary Friend	Mean	Standard Deviation
Self-Esteem	Yes	59.48	24.29
	No	70.99	20.03
Extraversion	Yes	24.85	6.73
	No	26.53	6.14
Agreeableness	Yes	33.57	5.86
	No	34.92	4.52
Conscientiousness	Yes	31.70	4.77
	No	33.44	4.98
Neuroticism	Yes	24.22	5.41
	No	21.89	5.90
Openness	Yes	36.11	6.53
	No	36.25	5.62
Loneliness	Yes	40.43	11.83
	No	37.48	9.01

Table 3

Pearson correlation scores on how imaginary friend scores relate to personality scores

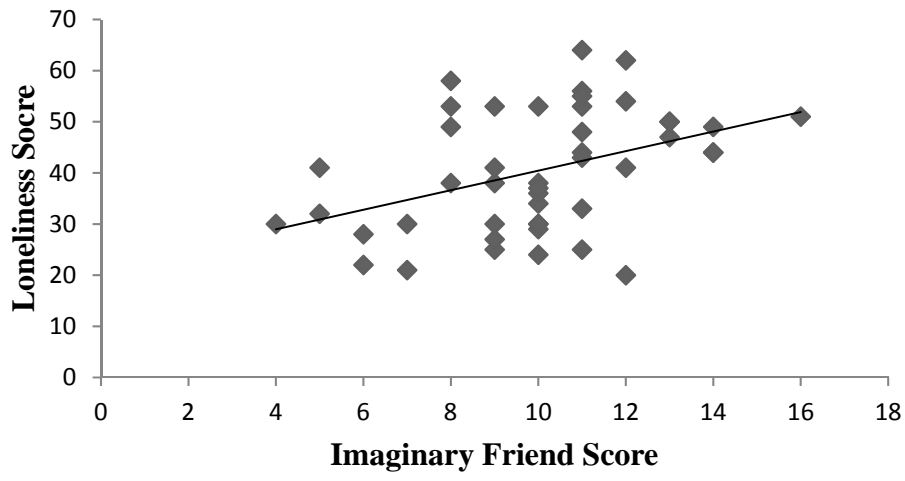| Measure	Pearson Correlation Score
Self-Esteem	-.440**
Extraversion	-.159
Agreeableness	-.280
Conscientiousness	-.197
Neuroticism	.458**
Openness	-.055
Loneliness	.413**

**Correlation is significant at the 0.01 level (2-tailed)

Figure 1.
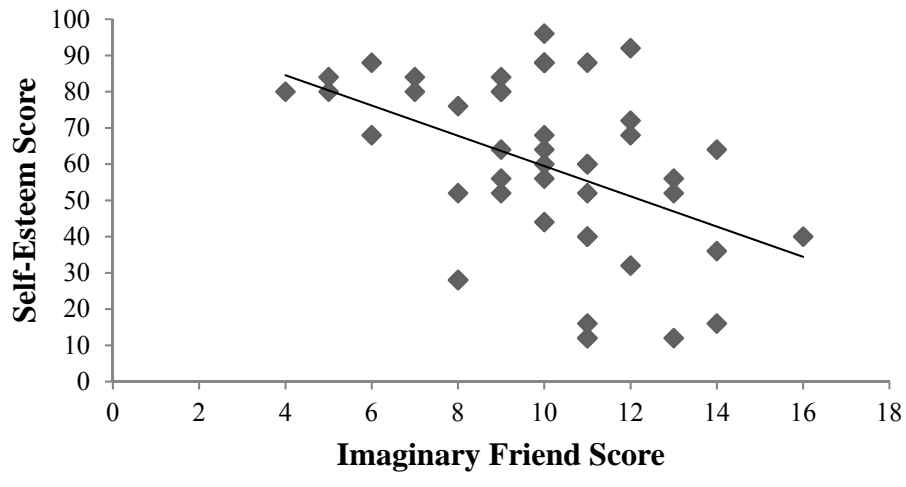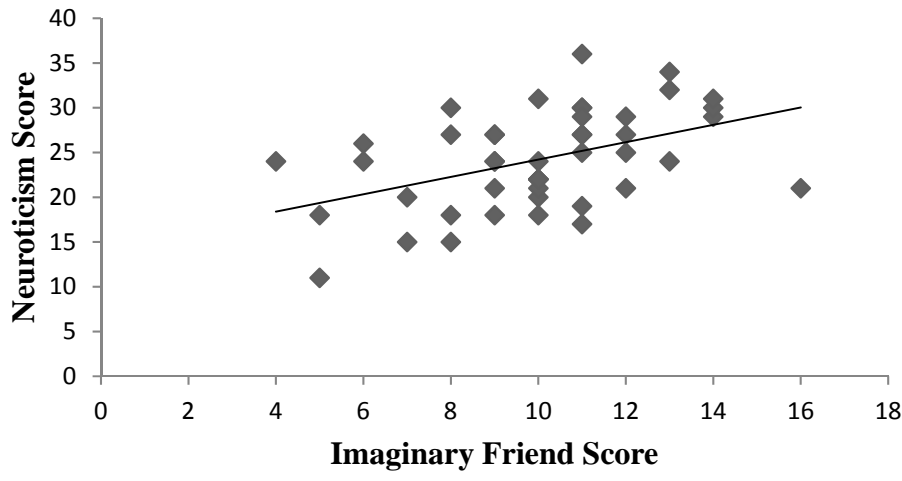
Figure 2.
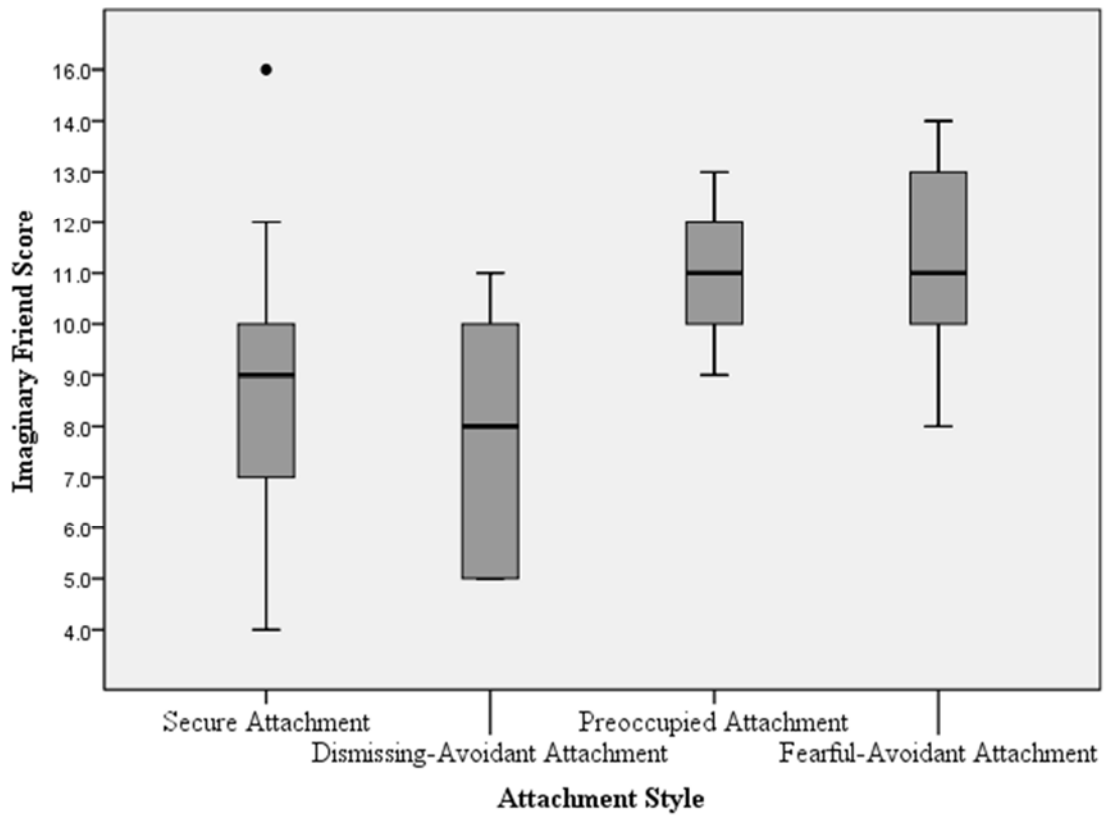
Figure 3.

Figure 4.

*Figure 1.*A significant negative correlation is seen between imaginary friend scores and self-esteem scores. Those that score higher on the imaginary friend measure, score lower on the self esteem measure used (Coopersmith Inventory).

Figure2. A significant positive correlation is seen between imaginary friend scores and neuroticism scores. Those that score higher on the imaginary friend measure, score higher on the neuroticism measure used (neuroticism subscale of the Big 5 Personality Test).

Figure 3. A significant positive correlation is seen between imaginary friend scores and loneliness scores. Those that score higher on the imaginary friend measure, score higher on the loneliness measure used (UCLA Loneliness Scale).

Figure 4. Attachment is broken into four categories. There are higher means of imaginary friend scores in the preoccupied attachment category and the fearful-avoidant attachment category. The lowest mean of imaginary friend scores is seem in the dismissing avoidant attachment category. The secure attachment category shows the greatest range in imaginary friend scores.

References

Allemand, M., Steiger, A. E., & Hill, P. L. (2013). Stability of personality traits in adulthood:

Mechanisms and implications. Geropsych: The Journal of Gerontopsychology And

Geriatric Psychiatry, 26(1), 5-13. doi:10.1024/1662-9647/a000080

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a

fourcategory model. *Journal of Personality and Social Psychology*, **61**(2), 226-244.

Coopersmith, S. (1981). *Self-esteem inventories*. Palo Alto, CA: Consulting Psychology Press.

Ferguson, C. J. (2010). A meta-analysis of normal and disordered personality across the life

span. Journal of Personality and Social Psychology, 98(4), 659-667.

doi:10.1037/a0018770

Gleason, T. R. (2002). Social provisions of real and imaginary relationships in early childhood.

Developmental Psychology, 38(6), 979-992. doi:10.1037/0012-1649.38.6.979

Gleason, T. R., & Hohmann, L. M. (2006). Concepts of Real and Imaginary Friendships in Early

Childhood. Social Development, 15(1), 128-144. doi:10.1111/j.1467-9507.2006.00333.x

Gleason, T. R., Sebanc, A. M., & Hartup, W. W. (2000). Imaginary companions of preschool

children. Developmental Psychology, 36(4), 419-428. doi:10.1037/0012-1649.36.4.419

Hampson, S.E., & Goldberg, L.R. (2006). A first large cohort study of personality trait stability

over the 40 years between elementary school and midlife. Journal of Personality and

Social Psychology, 91(4), 763-779. doi:10.1037/0022-3514.91.4.763Hurlock, E. B., &

Burstein, M. M. (1932). The imaginary playmate: a questionnaire study. *The Pedagogical

Seminary And Journal Of Genetic Psychology*, 41380-392.

John,O.P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L.A.Pervin & O. P. John (Eds.), Handbook of personality: Theory and research (Vol. 2, pp. 102-138). New York: Guilford Press.

McAdams, D. P. (2006). The Pearson: A new introduction to personlaity psychology. (4th ed.). Hoboken, NJ: John Wiley & Sons, Inc.

McCrae, R. R., & Costa, P. r. (1997). Personality trait structure as a human universal. American Psychologist, 52(5), 509-516. doi:10.1037/0003-066X.52.5.509

Russell D, Peplau LA & Cutrona CE (1980) The revised UCLA loneliness scale: concurrent and discriminant validity evidence. Journal of Personality and Social Psychology 39, 472–480.

Saltz, E., & Johnson, J. (1974). Training for thematic-fantasy play in culturally disadvantaged children: Preliminary results. Journal of Educational Psychology, 66(4), 623-630. doi:10.1037/h0036930

Taylor, M., Carlson, S. M., Maring, B. L., Gerow, L., & Charley, C. M. (2004). The Characteristics and Correlates of Fantasy in School-Age Children: Imaginary Companions, Impersonation, and Social Understanding. Developmental Psychology, 40(6), 1173-1187. doi:10.1037/0012-1649.40.6.1173

Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. Cognition, 13(1), 103-128. doi:10.1016/0010-0277(83)90004-5

Woolley, J. D. (2003). The Fantasy/Reality Distinction Revisited: The Case of Imaginary Companions. Social Development, 12(4), 622-625. doi:10.1111/1467-9507.00252