SCHOLARLY REVIEW

Examining the Formation of Parasocial Relationships with Celebrities in Teenagers

By Anvi Jana

Author Biography

Anvi Jana is a Junior at Lake Travis High School in Austin, Texas. She has been interested in behavioral sciences research since she was a sophomore, and plans to pursue a career in psychiatry in the future. She is also interested in art, mathematics, and basic sciences.

Abstract

As social networking sites skyrocketed, especially among the teenage demographic, parasocial interactions with celebrities have risen in tandem. Past research has not specifically focused on the ramifications of social media in early childhood development. Using a mixed-method phenomenological design, results indicated that feelings of parental rejection at a young age caused teenagers to feel higher anxiety in social situations ($r = .89$, $p < .011$). These socially anxious teenagers in turn reacted more intensely when their favorite celebrity underwent negative experiences and shared them on social media ($r = .89$, $p < 0.05$). Additionally, a strong statistical correlation was found ($r = .92$, $p < .001$) between checking celebrity social media accounts and believing a celebrity would correspondingly like their fan. Findings reveal that parasocial relationships are ultimately unhealthy, and make it difficult for individuals to distinguish between genuine and one-sided, non-reciprocal relationships. Understanding these relationships is crucial in helping teenagers re-evaluate how they perceive and distinguish in-person interactions as opposed to artificial, virtual relationships. Based on these findings, future researchers should study cases of intense social media fan behavior and explore how to wean teenagers from superficial celebrity obsessions with alternative coping mechanisms (i.e. therapy pets, journaling, meditation, etc.).

Keywords: Parasocial relationships, attachment, celebrity stalking, influencers, adolescent relationships

"I've left you dozens of poems, letters and love messages in the faint hope that you could develop an interest in me"

- John Hinkley Jr.in a letter to Jodie Foster

Introduction

Parasocial interactions were first defined by sociologists Horton & Wohl as quasi-interactions where an individual is invested in a media figure who is unaware of the individual's existence. Parasocial interactions with celebrities have increased due to larger celebrity media presence on social media. Both cyber-stalking and real-world stalking has risen as well—rising 72% from 2014 to 2018 in the UK (Maple et al., 2015). Recent studies have identified why these interactions may be formed, and how teenagers are especially susceptible to them. A majority of adolescents seek information about romantic love from TV and movies, understanding relationships through the lens of popular media (Ward, 2002). This view of relationships, which is often idealistic, results in this age group also being particularly sensitive to rejection and heartbreak. Teenagers feel driven to have "perfect" relationships, such as the ones portrayed on screen, due to their heightened need for security within social groups and on social media. According to the North American Journal of Psychology, parasocial relationships "require the same emotional skills, but do not require the necessary work needed to maintain the interaction." (David et al., 2019). Relationships are often portrayed as overly simplistic in the media, and as adolescents learn about them in that way, it makes sense that this age group would be more likely to engage in parasocial relationships, which are near effortless to maintain.

Literature Review

1.0 Search Strategies

The scholarly articles cited in this paper were found on Google Scholar, EBSCO, JSTOR, National Library of Medicine, and various university databases. The search terms used to find sources included "attachment theory," "parasocial relationships," "internet celebrities," "social media interaction," "adolescent relationships," and "celebrity worship".

1.1 Nobody Knows Him Like I Do: How Celebrity Worship Stems From The Childhood Environment

Celebrity worship refers to a specific obsession with a famous media figure, often manifesting in one being overly involved in the celebrity's personal life. A study measuring celebrity worship from Dr. McCutcheon speculated that an "introverted nature and lack of meaningful relationships" expedite psychological obsessions in order to create a personal identity. Similar to other addictions, celebrity worship uses delusion to soothe other unrelated obsessions. This absorption is achieved through focusing all attention on a celebrity, and this fake sense of reality "promotes worshippers' unfounded beliefs that they have a special relationship or connection with this celebrity", which motivates them to learn "more about their object of attention." (McCutcheon et al., 2002). Some worshippers move into public, physical spaces where they actively seek out information concerning the celebrity (internet rooms, fan conventions, etc.). Celebrity worship at its best creates role models for fans and at its worst results in violence when fans become overly obsessed with the celebrity—referred to as borderline-pathological parasocial relationships. From the Journal of Nervous and Mental Disease, "celebrity worship for intense-personal reasons is associated with neuroticism", while "celebrity worship reflecting pathological thoughts is related to psychoticism." (Maltby & McCutcheon, 2003). The development of these traits in adolescents is especially dangerous as teenagers often engage in impulsive behavior, which can be heightened by obsessional behavior at a young age. Following celebrities is very common among adolescents as teenagers struggle to construct a unique identity, but celebrity worship can manifest in dangerous behavior.

It is important to understand what factors contribute to the likelihood of a teenager to engage in celebrity worship. One of the factors that contribute to the development of obsessive behavior and thought patterns is the early childhood environment. The term 'shielding' refers to the protection guardians give their children from the external environment. The metaphorical screen evolves as a child matures, but the presence of a shield itself affects the child's psychological development heavily. For a protected child, "[one] cannot allow [themself] to have the passing sadistic thought…These are shrouded in

profound shame that wreaks havoc." (O'Connor, 2007). Furthermore, protected children describe themselves as having been naive around the reality of the world, and becoming disillusioned once out of their screened environment. On the other side of the spectrum, a lack of screening means that children are often left to deal with the burdens of their parents, becoming "exposed to parts of the world that are unmanageable for them," or "not exposed enough to the reality of a harsh world." Both extremes of screening results in a disconnect from parent to child. In adulthood, this manifests in over-dependency on interpersonal relationships. This dependency does not stop at adult relationships however, and is transferred to media figures for celebrity worshippers. Being dependent on a celebrity is comparatively more dangerous as people cannot be rejected by a celebrity, making these obsessions particularly hard to break free of.

1.2 I Moved to Connecticut for Jodie: Examining Celebrity Stalkers

Borderline-pathological parasocial relationships, a specific type of the phenomenon, manifest in stalking, intense fantasies, and even murder. The first anti-stalking law was passed in California in 1994 following the murder of actor Rebecca Schaeffer by an obsessed fan (National Institute of Justice, 1998). The fan, Robert Bardo became obsessed with Shaeffer, describing her as a goddess before a movie came out containing Schaeffer in a bedroom scene; Bardo's attitude shifted to violence and he stalked and killed the young actress soon after in a jealous rage (Meloy et al., 2008).

Stalking has become a point of interest in news media and is usually explained by intense parasocial behavior. Other famous stalking cases include Gwyneth Paltrow, whose stalker harassed for over a decade, sending her over 70 packages including love letters and various pornographic materials. Icelandic musician Bjork had a stalker who grew infatuated with her until the singer started dating another musician–effectively "betraying" him. Soon after, the stalker sent a letter bomb made of sulfuric acid to her residence before ending his life on camera. Selena was killed at age 23 by the president of her own fan club. John Lennon was famously—and fatally—shot outside his apartment in 1980 by a crazed fan–who, after trying to be like Lennon for several years, became jealous of his fame and wished fame for himself. Finally, one of the most well-known cases of celebrity stalking: when John Hinkley Jr. became obsessed with actress Jodie Foster after her performance in Taxi Driver. Hinkley moved to Connecticut when Foster attended Yale University, and attempted to murder former president Ronald Reagan, for the purpose of demonstrating his love for the young actress, following the plot of Taxi Driver, her debut film (Schlesinger, 2006).

Stalking has long been recognized in psychiatric fields, and has had varying definitions. The victim is essential to stalking, as it is the actions towards the victim that define the subclasses of stalking (Mullen, 2000). Obsessional stalking is defined as when the stalker feels wronged by the victim and seeks retribution. Erotomanic stalking is defined as when the stalker delusionally believes in a romantic or sexual relationship between themself and the victim—often a stranger, and incompetent stalking is defined as a stalker who lacks the ability to create relationships (Wykes, 2007). The most common red flag seen in stalkers of celebrities is having "unrealistic or untrue expectations of the celebrity, such as a non-existent romantic relationship between the fan and celebrity." (Mullen & Pathé, 2002). Despite these red flags, however, many stalking cases go unnoticed until they reach extreme points. While not all stalkers are diagnosed with personality disorders, enough are for the phenomenon to be studied further. Parasocial relationships have become more and more common with the rise of social media sites. As the main demographic of these platforms, adolescents are an important group to understand.

1.3 My Mom Left Me, But Jennifer Aniston Won't: Childhood Attachment Plays an Unprecedented Role in Parasocial Relationships

Psychologist Mary Ainsworth defined attachment styles formed in childhood as secure, anxious-ambivalent, or anxious-avoidant (Roberts, 2007). These attachment styles play a crucial role in the development of adult relationships. The anxious-ambivalent style is characterized by overly needy and dependent relationships, and the anxious-avoidant style is defined as those who are afraid of intimacy entirely, and distrust anyone who tries to get close to

them. It has been proven that childhood attachment predisposes one in their relationships formed in adolescence and adulthood. Ambivalently attached people become socially demanding and clingy, and they report "stalker-ish" behavior in themselves (McCutcheon et al., 2006).

Parasocial relationships provide a sense of intimacy, a feeling all humans crave. Since their discovery in 1956, when sociologist Donald Horton and psychiatrist Richard Wohl listened to various "fireside" style radio broadcasts, these relationships give people delusional feelings of friendship without the required emotional work required (Paravati et al., 2022). The scientists "noticed how listeners started to feel a sense of intimacy and personal relationship with the broadcaster, whom they had never met." (Kim, 2011). The amount of people who can take advantage of these relationships has grown with the rise of social media and social networking sites (SNS). In 2006, researchers David Giles and John Maltby classified parasocial relationships into three subcategories. They are entertainment-social: attraction due to entertainment and social value; intense-personal: obsessive and intensive thoughts about celebrities; and borderline-pathological: uncontrolled behaviors and fantasies about celebrities.

Parasocial interaction is not limited to friendship or romantic relationships, however, and people often try to compensate for lack of parental-based attachment by obsessing over certain celebrities (David, 2019). Although adults are less affected by attachment than infants, when an adult loses a relationship, they cope through the typical stages of grief. This same behavior is also seen with the loss of parasocial relationships. For example, one may have the same grieving process for the loss of a close friend and the loss of a celebrity (Cohen, 2004). The loss of a symbiotic relationship depicts more about the intensity of the relationship than the measurement of the relationship in and of itself. Furthermore, parasocial relationships are easily maintained, and hard to break out of, as parasocial and social interactions "require the same emotional skills, but parasocial relationships do not require the necessary work needed to maintain the interaction." (David et al., 2019). These relationships do not have the risk of ending, and this allows people to feel more secure and stay in the relationship. As these interactions increase across social media, the extremes of these "relationships" should too be understood.

1.4 Liked and Commented: Social Media Intensifies Gen-Z's Parasocial Interactions

Due to an excess of hormones, a changing biology, and developing personality, early romantic relationships in adolescents are even more emotionally charged, and leave long impacts on the future of teenage relationships, as well as their identity development and feelings of self-worth. Again, due to their overly emotional relationships, adolescents are also a large part of fan groups (González & Finn, 2021). With the increase of celebrity interaction and presence due to social media, teenagers have more access to celebrities, and the lines further blur between reality and fiction, truth and delusion (Cohen, 2004). Cultivation theory maintains that "people who watch television, and regularly consume fictional stories see the real world as similar to stories." (Cohen, 2004). Teenagers consume large amounts of media through movies, shows, and social websites. Teenagers are influenced by the media, and in relation to their relationships, this online presence often gives them a distorted view of reality and relationships. Furthermore, it was found in a recent study that "exposure to prime-time TV or youth TV content, has also been associated with more stereotypical sexual attitudes and evaluation styles" (Ter Bogt TF, 2010). Attitudes and beliefs easily translate across media due to the lack of separation between media consumed and real life.

Compared to traditional content through movies and television, where fans could only consume content, social media allows teenagers to communicate with their idols. A recent study found that "young women of generation Z form strong parasocial relationships with some of the users they follow and also accept commercial content from them as part of normal content." (Flecha-Ortiz, et al., 2023). Influencers are not only easy to access through all forms of social media, they can also grab onto short attention spans in a way other media celebrities could not. Through comments, tagging celebrities, and even directly messaging celebrities, teenagers today have more access to celebrities than ever before. According to Pew Research Center, as of 2022, 77% of teenagers say they use YouTube daily, 58% say the same of TikTok, and about 50% of teenagers use Instagram, Snapchat or Twitter every day.

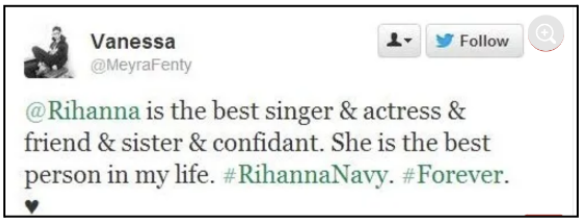

Figure 1.1 : Tweet from fan about singer Rihanna (see Appendix G for all)

Social media personalities—or influencers—accumulate millions of fans and accrue millions of dollars annually. These influencers offer the glamor of larger celebrities, while also maintaining a more "intimate" relationship with their fanbase, leading to more followers and more success. Not only do teenagers admire their favorite celebrity, they often report feelings of kinship with them, citing their interactions through social media (Tolbert, 2019). While celebrities may see their actions as part of their daily lives, these micro-interactions are not common for the average person, making them more personal and exclusive. Influencers are found on every social media platform, often using multiple to garner a larger audience.

Celebrities provide a model for teenagers to base themselves on, to be successful and lead a life of fame (Chung & Cho, 2017). Social networking sites have changed the way that relationships are perceived. As celebrities "break the fourth wall" by interacting with fans, a once-obviously delusional fantasy of being friends with a celebrity no longer sounds unfounded. In a recent content analysis of celebrities' social media posts, it was found that "many celebrities often try to cultivate a parasocial relationship with their audience." (Eyal et al., 2020). By addressing their audience in second person, using informal language and exposing (carefully curated) behind-the-scenes footage, "they aim to manufacture an intimacy, and grow their brand." (Chung & Cho, 2017). Teenagers are susceptible to these strategies because many look for external validation through role models of which they model themselves after. It is important to notice the targeting of these teenage consumers and how these interactions might contribute to obsessive-compulsive behavior and intense parasociality into adulthood.

1.5 Summary and Gap

While plenty of research exists about the role of childhood attachment in romantic relationships, there remains a lack of knowledge about attachment in regard to parasocial relationships. Furthermore, the current Generation Z is unique in that it is the first generation to have grown up in the presence of the internet, making it especially vulnerable to parasocial interactions. Despite this there seems to be no studies looking at both childhood attachment as well as social media in regard to the formation of these relationships within the generation. There seems to be a consensus that attachment and online presence are related to the establishment of parasocial relationships, but there is a lack of specificity, which this study attempts to address. The study conducted by Dr. McCutcheon (McCutcheon, 2006) for example attempted to correlate insecure attachment styles to the tendency to stalk celebrities. She did find a weak correlation, but her results may have been stronger had she focused on the current generation.

Additionally, there seems to not have been many studies utilizing a phenomenological method done with this age group. A study from 2014 that came close examined amateur YouTube videos, coding initial interpretations of the data (such as gestures), before interviewing creators about the purpose of their performances on YouTube videos (Chen, 2014). Again, the study was conducted with adults, and provided insight into the creation of parasocial relationships through social media, but did not specifically examine what factors increase the likelihood of them forming. Another relevant study was conducted by Dr. Maltby (Maltby & McCutcheon, 2003) and his colleagues, who attempted to link celebrity worship to Eysenk's model for personality traits (extraversion, neuroticism and psychoticism). This paper was purely quantitative, using self-rated attitude scales to draw conclusions. The correlations found were not particularly high (all under .31), but they were considered significant after using a Bonferroni correction. This study most closely examined the early forming of celebrity worship, but again did not include adolescents. All the mentioned papers examined a different part of parasocial relationships, but there has not been enough overall research investigating them together. This study will focus purely on adolescents, attempting to find specific factors leading to parasocial interaction. The research question posed is: how does childhood attachment

and online emotional interaction contribute to the formation of parasocial relationships with celebrities in teenagers?

1.6 Hypothesis and Assumptions

All correlations are assumed to be linear. It is also assumed that all participants use some form of social media. It is hypothesized that insecure attachment will result in feeling more connected to a celebrity, shown in higher levels of joy when the celebrity is happy. Feelings of rejection in childhood lead to higher dependency on interpersonal relationships, therefore, it would make sense that rejection in childhood will correlate with more intensity in parasocial relationships. It is also hypothesized that those who speak to friends online will follow celebrity online presence more closely, as there would be a smaller perceived divide between real and online relationships.

Research Design And Methodology

2.1 Study Design: Devising A Method to Fill the Gap

This is a phenomenological study that utilizes a sequential explanatory design. As Paul Leedy and Jeanne Ormrod explain in Practical Research: Planning and Design, phenomenology "attempts to understand people's perceptions and perspectives relative to a particular situation". An explanatory design is defined as first "collecting considerable quantitative data," in a preliminary phase before collecting "qualitative data in a Phase 2 follow-up" to help the researcher give "greater substance and meaning to the numbers." (Leedy & Ormrod, 2018). This is crucial to the study, as the reasoning behind the participant's scores is just as important as the scores themselves. The initial Likert scale scores from the subjects will guide the following questions and add depth to the data. The study had 41 participants who self-volunteered.

In choosing the procedure, a study conducted by Dr. McCutcheon and her colleagues was an inspiration to the researcher. They used several known scales including the Celebrity Attitude Scale (CAS), The Obsessional Relational Intrusion & Celebrity Stalking scale (ORI & CS), and the 12-item "care" subscale from the Parental Bonding Instrument (PBI-C) before using a Likert scale for participants to self-rate how well they viewed their relationships with their parents. This study was purely quantitative, so no interviews were conducted, and all questions were answered with self-rated scales. The quantitative data allowed the researchers to draw conclusions regarding attachment and stalking behavior. Another paper used for reference was from Dr. Jonathan Cohen who conducted a study on attachment and relationship intensity. Cohen employed three tests among a group of participants. The first test measured attachment style by asking participants to pick which statement described them the best. Participants then filled out 10 five-point Likert scales with statements regarding their favorite media figure (fictional or nonfictional). Finally, participants self-rated feelings regarding breaking up in person and their feelings regarding the death of their favorite media figure. Like the previous study, the data was purely quantitative and was used to draw conclusions about the relationships between attachment and parasocial relationships with fictional characters.

Unlike these studies, which use only quantitative data to inform their research, the design used in this study will use qualitative data to add depth to initial quantitative findings. Although research done by Dr. McCutcheon and Dr. Cohen found evidence in support of their hypotheses regarding attachment and relationships, a qualitative research method will add complexity to the results and explain how teenagers feel about their favorite celebrities, rather than just correlating them.

2.2 Subjects

The study sample included 41 volunteers between the ages of 14–18. This group of participants was chosen because they fit in the group the researcher wished to study, and could respond to questions about relationships while also being part of the same age group. Teenagers are essential to this study as they are the studied population and are accessible in a high-school environment.

2.3 Research Instruments

A survey was created with Google Forms that collected self-ratings in response to various questions on a 1-10 Likert scale.

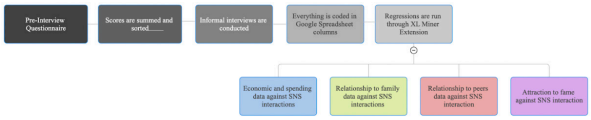

Figure 3.0 : Overview of procedure

Procedure

The researcher first gathered participants through an interest form that students could find on an advertisement. The interest form included the participant's name and email address so they could be contacted with the following parts of the study. The form also asked about the participant's average screen time on social media.

After gathering participants, the researcher sent out the pre-interview questionnaire. Out of the 50 students who filled out an interest form, 41 responded to the form. The form asked questions broken into five categories (socioeconomic, childhood attachment, current relationships, social media interactions, and attraction to fame), which required participants to enter self-ratings from 1–10. There were 42 questions in total to cover all the categories (see Appendix A). After the form was submitted, the researcher summed the self-rated scores from the form. Those with high scores (over 200) or contradictory answers (i.e. a high score of feeling rejected as well as a high score of attachment to parents) were asked to participate in a follow-up interview to explain their answers. The researcher received consent from the participants and wrote specific questions before the interview to guide the conversation. The interview was not delegated to these questions however, and the researcher asked different questions as the participant clarified their answers through the process. Anonymity was also kept in the interviews to help participants feel more comfortable and urge them to be honest in their responses.

The questions were tailored to their initial responses and scores, using the initial scores to inform the following data collection within the categories. If scores within a category varied greatly, The researcher asked the participant to clarify what they had been thinking of and took note of their responses. The researcher went back to the quantitative data from the self-rated questionnaire and filled in any missing data or confusing scores with the information gathered from the interviews. Following the interviews, the self-rated answers, along with ratings of the other categories of questions, were coded into a Google Spreadsheet.

For the analysis of the data, the researcher first sorted the data from the lowest to highest sums. The researcher looked for correlations between the five categories earlier listed. The researcher ran linear regressions to determine if a correlation exists especially between celebrity interactions online and the remaining four categories, as touched upon by former research.

Coding Reflexivity: Within the interviews, the researcher was told participants' early childhood memories, which sometimes included highly negative or traumatic events. In order to control for emotional reflexivity and to reduce personal biases in regards to the intensity of the memory described, a reflexive journal was kept. In this journal, a peer coder and the researcher both coded the data to ensure that reflexivity was limited (Blair, 2015). The researcher and peer coder's coding emulated synonymous results based on the intensity scaling. With the coded data, the researcher looked for correlations through the usage of multiple linear regressions..

3.1 Delimitations

Because the participants of this study were all high school students living in Lakeway, Texas, the results may not represent the general population. Participants self-volunteered for the study, and were not randomly selected. Also, participants' unwillingness to follow up for interviews limited the size of the sample and data. Furthermore, the general demographic of participants were White and high-income, which may have caused a shift in results as it largely left out low-income individuals.

Results And Analysis

The researcher entered the data gathered from surveys and following interviews into a Google Spreadsheet. The data was organized by the possible

categories related to the establishment of parasocial relationships (see Appendix A1-A4). Overall the individual summed scores did not seem to differ greatly, but relationships became clear after linear regressions were run attempting to correlate given variables (see appendices for all regressions).

Based on the hypothesis, the first relationship The researcher looked at was between feelings of rejection in childhood and attachment to the celebrity—specifically how the participant felt in response to the celebrity's life they see on social media.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.02077907737							
R Square	0.0004317700564							
Adjusted R Square	-0.02519818456							
Standard Error	3.117190787							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.1636935063	0.1636935063	0.01684630593	0.8973970783			
Residual	39	378.9582577	9.716878403					
Total	40	379.1219512						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.722323049	1.122898768	5.096027541	0.000009246030968	3.451045927	7.993600171	3.451045927	7.993600171
X Variable 1	0.02601330913	0.2004210165	0.1297933201	0.8973970871	-0.3793764573	0.4314030756	-0.3793764573	0.4314030756

Figure 4.1 - A regression run with the number of self-reported feelings of rejection and self-reported levels of happiness when the celebrity experiences a positive event produced an r-value of .02. This does not meet the threshold for a strong correlation, and is considered insignificant.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.8039478183							
R Square	0.6463320946							
Adjusted R Square	0.6370250445							
Standard Error	1.519182596							
Observations	40							
ANOVA								
Regression	*df*	*SS*	*MS*	*F*	*Significance F*			
Regression	1	160.2742012	160.2742012	69.44542952	0.000000004183315916			
Residual	38	87.70079884	2.307915759					
Total	39	247.975						
Intercept	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	1.376906318	0.5472964625	2.515832666	0.06220273387	0.2689625629	2.484850073	0.2689625629	2.484850073
X Variable 1	0.8155410312	0.09786422965	8.333392437	0.000000004183315815	0.6174252576	1.013656805	0.6174252576	1.013656805

Figure 4.2 - A regression run with the number of self-reported feelings of rejection and self-reported levels of anxiety when the celebrity experiences a negative event produced an r-value of .80. The r^2 value was .646, meaning that 64.6% of elevated anxiety when the celebrity undergoes a negative life event can be predicted by childhood rejection. The p-value is .06, however, meaning that there is 6% chance that the results could be due to chance alone

The researcher ran a linear regression first between childhood rejection and feeling more joy when the celebrity is happy, and then between childhood rejection and feeling more anxious when the celebrity is upset. The latter showed a much higher r^2 value compared to the former, but the p-value was over .05, meaning that the correlation was not statistically significant. To try and find a similar relationship with a lower p-value, the researcher ran two more linear regressions, attempting to find an intermediate behavior that could be related to both childhood rejection as well as increased attachment to a celebrity.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.8885729178							
R Square	0.7895618302							
Adjusted R Square	0.7275596667							
Standard Error	1.335348346							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	192.261825	192.261825	107.8211388	0			
Residual	39	69.54305303	1.783155206					
Total	40	261.804878						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.6696914701	0.4810295923	1.392204307	0.01136577884	-0.3032827095	1.64266565	-0.3032827095	1.64266565
X Variable 1	0.8915103852	0.0858567509	10.38369582	0	0.7178487163	1.065172054	0.7178487163	1.065172054

Figure 4.3 - A regression run with the number of self-reported feelings of rejection and self-reported levels of social anxiety produced an r-value of .889. The r^2 value was .789, meaning that 78.9% of individual social anxiety is explained by childhood rejection.

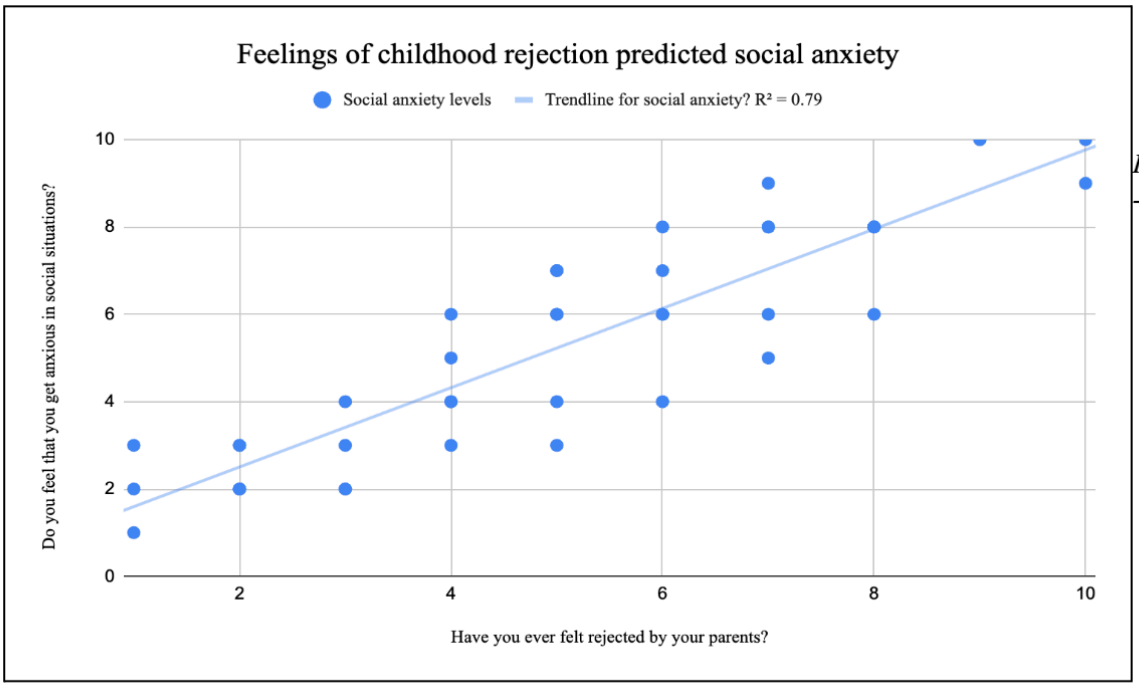

Figure 4.4 - Graphed correlation: childhood rejection predicting later social anxiety; Line of best fit: 0.908x+0.688

4.1 Further Analysis

The intermediate behavior found was participants' social anxiety levels. The data showed that there is a strong correlation between feelings of rejection in childhood and feelings of social anxiety in adolescence. This finding is more intuitive, as it is logical that not feeling cared for by parents in childhood will result in more difficulty forming relationships later on, however the correlation is important in explaining later correlations. Using the same data column, the researcher looked for a relationship between feelings of social anxiety and being upset when something negative happens to a favorite celebrity, based on the previous correlation found.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.8859522903							
R Square	0.7849114608							
Adjusted R Square	0.779251236							
Standard Error	1.18473382							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	194.6384195	194.6384195	138.6714309	0			
Residual	38	53.33658052	1.403594224					
Total	39	247.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.8564612326	0.4346414371	1.970500646	0.05609870632	-0.02342434866	1.736346814	-0.02342434866	1.736346814
X Variable 1	0.87972167	0.07470536492	11.77588345	0	0.7284885665	1.030954773	0.7284885665	1.030954773

Figure 4.5 - A regression run with the number of self-reported feelings of social anxiety and self-reported levels of increased anxiety in relation to negative life events of a celebrity produced an r-value of .889. The r^2 value was .785, meaning that 78.9% of increased anxiety when a celebrity undergoes a negative life event is explained by individual social anxiety.

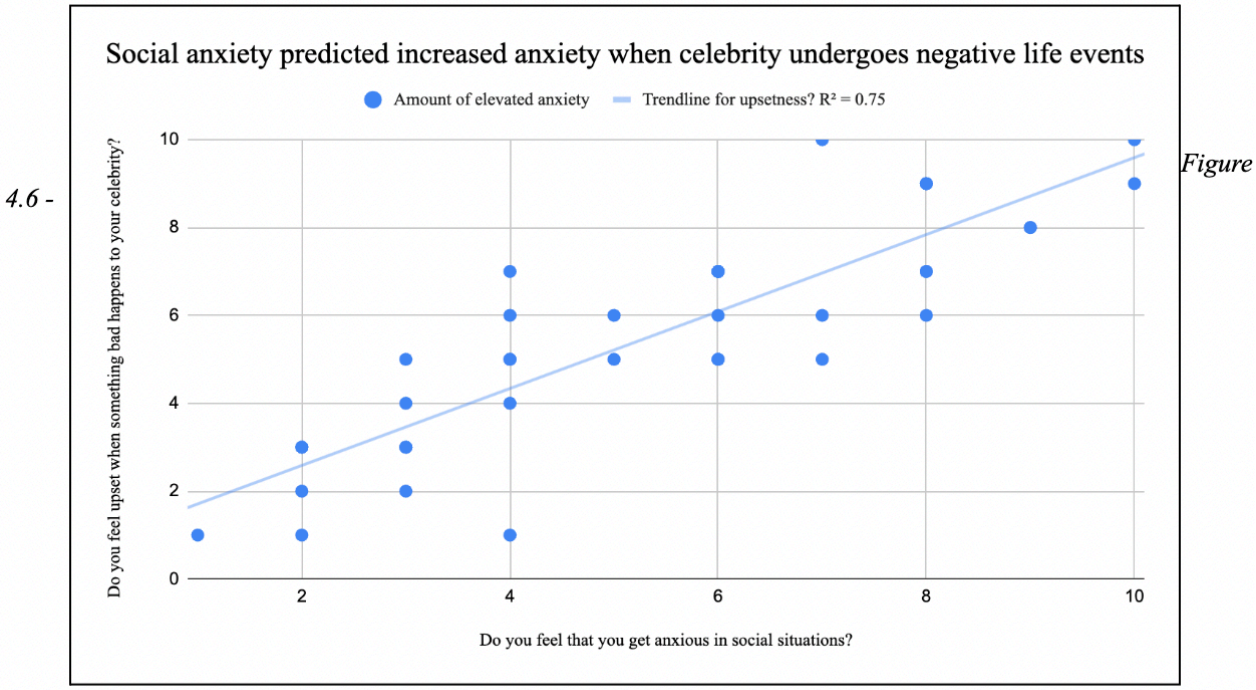

Figure 4.6 - Graphed correlation: social anxiety predicting elevated anxiety from celebrity's life; Line of best fit: 0.876x+0.831

This data shows a strong correlation between social anxiety levels and an increased tendency to be upset when something happens to a celebrity one is close to. This is explained by the r value of .889, which meets the threshold for a strong correlation. The p-value of .05 indicates statistical significance. This correlation and the one before it linked childhood rejection to social anxiety, which then correlated strongly with increased emotional attachment to a celebrity. To answer the second hypothesis, the researcher then turned to the social media usage data, specifically in regards to a perceived relationship with the celebrity. The data revealed the most significant relationship within this study.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9169198469							
R Square	0.8407420056							
Adjusted R Square	0.8365510058							
Standard Error	1.051069722							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	221.6195927	221.6195927	200.6065462	0			
Residual	38	41.98040732	1.104747561					
Total	39	263.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	1.204949729	0.339624606	3.547887015	0.001051962397	0.5174156649	1.892483794	0.5174156649	1.892483794
X Variable 1	0.7558649136	0.05336685821	14.16356404	0	0.6478293583	0.863900469	0.6478293583	0.863900469

Figure 4.7 - A regression run with the number of self-reported feelings of levels of social media checking and thinking that the checking would make celebrities "like"the participant more produced an r-value of .917. The r^2 value was .841, meaning that 78.9% of individual social anxiety is explained by childhood rejection.

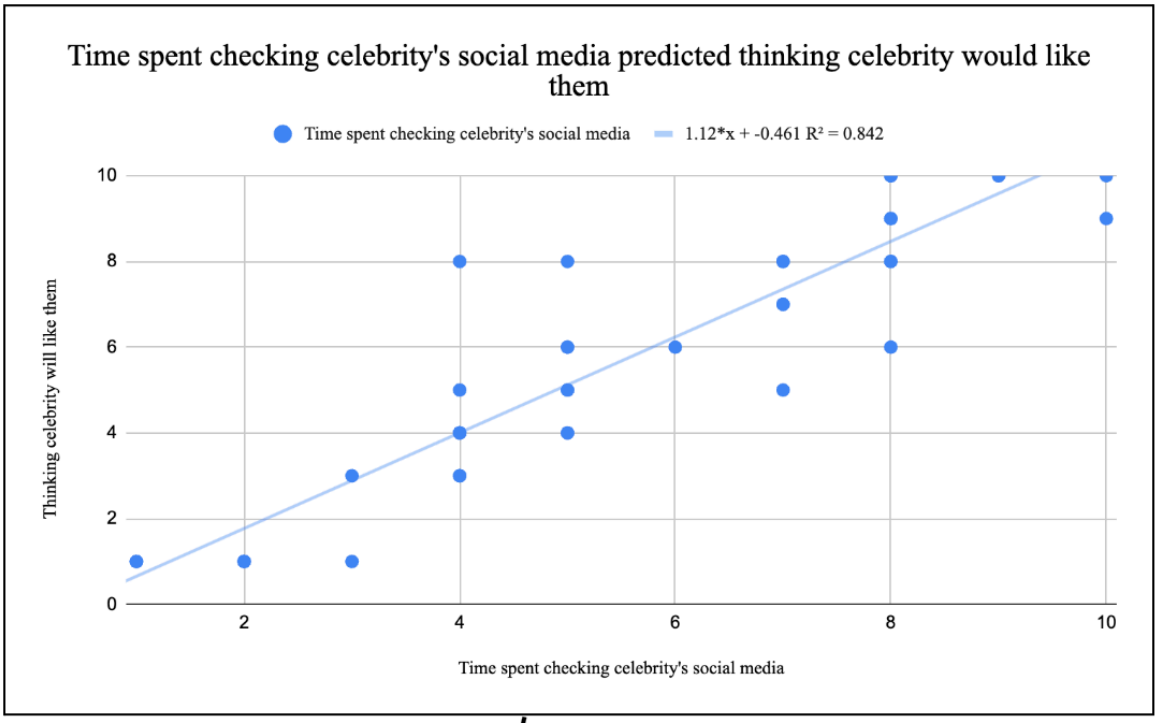

Figure 4.8: Graphed correlation: checking social media predicting how much participant think celebrity will like them; Line of best fit: 1.12x-0.461

The data showed the strongest correlation found: between checking celebrity social media accounts and thinking that the celebrity will notice and like the participant more due to the checking. The r2 for this relationship is .84, with a .917 r-value and a p-value of .001, indicating that the correlation is statistically significant.

Discussion

5.0 Gap Fulfillment

After analyzing the data using linear regressions, the researcher found statistical significance in three of the correlations. The gap in research was filled after analysis of the data, concluding that parasocial relationships are affected by childhood relationships as well as social media interaction with celebrities.

5.1 Key Findings

Participants who faced rejection by parents in their childhood showed 79% higher social anxiety. As participants reported more feelings of rejection, they also reported more inability to function in social situations (r = .89, r2 = .79, p = .011). When asked to clarify, participants generally mentioned parties and classrooms as the social situations they were referring to. This relationship is consistent with the findings by Drs. Morris and Oosterhoff, who found that "[parents] who are unresponsive to their children's efforts…may prompt or perpetuate feelings of anxiety by withholding validation." (Morris & Oosterhoff, 2016). Furthermore, it is supported by basic attachment styles—specifically anxious attachment—where children internalize feelings of rejection as being unworthy of affection, and in turn become codependent on others for affirmation. This lack of emotional validation leads to a general lack of trust in others, which is expressed in elevated social anxiety (Roberts, 2007). The fear of rejection and subsequent insecurity these people feel often makes them withdraw from others socially. Those with an anxious attachment style—stemming from inconsistent care from parents—often feel awkward in social interactions, and may even withdraw completely, thus validating their own anxiety.

Socially anxious participants became highly dependent on their celebrity and suffered 78% increased anxiety when calamities occurred in said celebrity's life. Participants who reported feeling overly anxious in social situations also reported feeling more upset when something negative happened in their celebrity's life (r = .89, r2 = .78, p = .05). When asked to clarify what "something bad happening to their celebrity" meant to them, participants answered that they had been thinking of when their celebrity received hate online (e.g. hate comments expressing any dislike of their celebrity), had personal information leaked online, or were in threat of physical harm. Furthermore, these participants displayed elevated anxiety when something negative occurred in their celebrity's life, but did not show elevated joy (r2 = .004) when something positive occurred in their celebrity's life. The findings further reinforce the findings of Dr. McCutcheon, whose study related overall attachment styles in adults to obsessive traits, although the correlations she found were weak overall (the highest being r = .35). The more socially anxious participants were, the stronger their perceived relationship was with their celebrity. Specifically for negative life events, this led to stronger reactions (such as elevated anxiety) when their favorite celebrity faced adversities in their life. Feeling anxious in social situations for the participants is indicative of attachment to the celebrity they most like. This, however, only applied to the negative emotions that socially anxious participants felt. This can be explained by existing negativity within this group due to an inability to remain in social contexts.

Participants who constantly checked their celebrities' social media accounts believed their behavior increased how much their celebrity liked them. Participants who reported spending more time checking the accounts of their celebrities also reported "knowing" their celebrity more and indicated higher scores when asked if they thought their celebrity would like them (r = .92, r2 = .84, p = .001). When these participants were asked if they would get along with their celebrity if they were to join them during the interview, all of them responded positively. These results revealed stronger correlations than a study performed by Drs. Kowalczyk and Pounders, which found a coefficient of determination of .244 between participants who found their celebrity's social media presence authentic and felt an increased attachment to the celebrity. Kowalczyk and Pounders explain that

"consistent access to information posted by celebrities makes consumers feel closer to the celebrity… result[ing] in a perceived emotional attachment." (Kowalczyk & Kathrynn, 2016). The study from Kowalczyk and Pounders differed from this study in their measurement of celebrity authenticity rather than the checking of accounts—however the concept of attachment via social media to the celebrity remains the same—especially as it makes logical sense that consistently viewing a celebrity's social media would make people believe in the authenticity of their celebrity. This attachment leads to a stronger "relationship" with the celebrity, which elicits stronger reactions when a person's favorite celebrity posts about their life. The large amount of information on the celebrity's life may cause people to feel more related to the celebrity, allowing them to think that they know and understand someone they have never met. Constantly checking social media accounts creates a delusional relationship or attachment to the celebrity. This makes people more emotionally invested in the life of a celebrity, which can lead to dependence on the celebrity's social media, as it can provide people with comfort and an idyllic life they can live by proxy.

5.2 Implications

The findings of this study depict the emergence of a celebrity-obsessed generation within the United States that could develop into more obsessed adults compared to previous generations. Using the findings of this study, teenagers can be more educated about parasocial relationships and how they develop through social media. Educating teenagers on what parasocial relationships are and how they can be circumvented may help reduce celebrity obsession. Lowering the volume of parasocial relationships may also lower celebrity stalking, which has risen dramatically in recent years.

5.3 Limitations

Because the pre-interview self-rated questions were online, it is impossible to know if the participants' answers reflected their actual feelings. Additionally, the different celebrities that participants thought of when answering questions may have skewed the data. Participants also may have shown survey bias on the more personal questions, wanting to stay in the median, rather than give extreme answers (or try to guess what the study was about and alter their answers). This was evident in later interviews when participants laughed or hesitated when asked certain questions. To appear "normal," participants may have been facetious rather than give true responses. For example, one participant went out of their way to express how much he loved the rapper Drake, laughing and insisting that he would do "anything and everything" for the artist. It was difficult to tell from his demeanor if his responses were reflective of his actual thoughts, but they were assumed to be accurate and kept in the study. Finally, the study was limited by the pool of participants as they joined the study by self-volunteering. Random sampling was impractical as the researcher needed participants who were obsessed with celebrities and who also regularly used social media.

5.4 Areas of Future Research

The findings of this study relate social anxiety and childhood rejection to dependence on a celebrity, amplified by time spent on social media, which validated their attachment. Future experiments should objectively measure participants' emotional reactions to celebrity life events, rather than having participants self-rate their celebrity connection. This could be achieved through content analysis of internet and text comments. For example, there have been multiple instances in the past few years when young internet personalities or influencers are not accepted into the college of their choice, and their fans consequently express hateful sentiments and attempt to boycott the schools. These intense reactions for the "benefit" of someone that fans have never met should be investigated further, especially comparing commentators' reactions to other negative life events, not personally experienced. Another direction that could be explored is regarding social anxiety and its relation to parasociality. The study could probe how the dysfunctional attachment to a celebrity can be channeled to a more positive feedback source. Based on the findings of this study, socially anxious teenagers are especially negative and seem to cling to celebrities as a form of comfort. If this attachment can be transferred to a healthier outlet, there may be a decrease in these relationships. Researchers can do this by measuring anxiety levels of those within parasocial relationships first when they still interact with their celebrity online, and then measure anxiety levels when introducing different coping mechanisms (i.e. therapy

pets, journaling, meditation, etc.). Future researchers have a plethora of directions in which to explore these relationships founded outside of reality and what they indicate for an internet based generation.

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APPENDICES

Appendix A: Questions asked with pre-interview form

QUESTIONS

1. Who is your favorite celebrity?
2. What is your daily screen time on social media (from phone settings)?
3. Can you describe your economic class?
4. How much have you spent on your favorite celebrity? (Tickets, merchandise, *etc.*)
5. How much would you spend, or would again in the future?
6. Have you bought anything because your favorite celebrity uses it as well (*i.e.* certain products)?
7. Was the thing that you bought useful to you/worth the price?
8. Have you ever sent fan mail or gift your favorite celebrity?
9. Would you ever send fan mail or a gift to your favorite celebrity?
10. Would you ever spend money for something your celebrity owned or used or wore?
11. Are you close to your parents; how much would you say?
12. Do you like spending time with your family; if so how much?
13. Do you eat meals with your family?
14. When you're down, do you want to talk to your parents for reassurance or comfort?
15. Have you ever felt rejected by your parents?
16. Do you think your parents are good parents?
17. Were you sheltered as a kid/ were your parents strict?
18. Do you wish you were less sheltered or more sheltered?
19. Do you feel that you get anxious in social situations?
20. How social do you think you are?
21. How many close friends would you say you have?
22. Do you ever feel pressured by your friends to like what they like?
23. Do you ever feel like you miss social clues, or not good at interpreting body language?
24. Are you good at understanding how you feel?
25. Do you ever find it hard to express how you feel?
26. How often do you see your friends per week?
27. How often do you talk to them online per week?
28. Why do you think you need your friends?
29. Do you think your friends share qualities with your favorite celebrities?
30. How would you react if one of your friends did not like your celebrity?
31. Do you discuss your favorite celebrity with your friends?
32. How many celebrities do you follow online?
33. How often do you check their account?
34. Have you ever messaged a celebrity?
35. What did you send?
36. Do you think your celebrity would like you?
37. If they joined us right now what would they be like?
38. Do you feel good when something good happens to your celebrity?
39. Do you feel upset when something bad happens to your celebrity?
40. Have you ever wanted to be famous?
41. Have you ever tried to be famous through social media?
42. Do you think you're more talented than your celebrity?

Pre-interview questionnaire

Please fill out this question before coming in for the interview for preliminary data

This form is automatically collecting emails from all respondents. Change settings

Name (first and last): *

Short answer text

Can you describe your economic class? *

	1	2	3	4	5	6	7	8	9	10	
Lower middle	○	○	○	○	○	○	○	○	○	○	Upper high

How much have you spent on your favorite celebrity? (Tickets, merchandise, etc.) *

	1	2	3	4	5	6	7	8	9	10	
$0	○	○	○	○	○	○	○	○	○	○	Over $300

How much *would* you spend, or would again in the future? *

	1	2	3	4	5	6	7	8	9	10	
$0	○	○	○	○	○	○	○	○	○	○	$300

Have you bought anything because your favorite celebrity uses it as well (i.e. certain products)? *

- Yes
- No

Was the thing that you bought useful to you/worth the price? *

- Yes
- No

A. Have you ever sent fan mail or gift your favorite celebrity? *

- Yes
- No

B. Would you ever send fan mail or a gift to your favorite celebrity? *

- Yes
- No

Would you ever spend money for something your celebrity owned or used or wore? *

- Yes
- No

Are you close to your parents; how much would you say? *

	1	2	3	4	5	6	7	8	9	10	
Very close	○	○	○	○	○	○	○	○	○	○	Not very close

Do you like spending time with your family; if so how much? *

	1	2	3	4	5	6	7	8	9	10	
Not at all	○	○	○	○	○	○	○	○	○	○	Very much

When you're down, do you want to talk to your parents for reassurance or comfort? *

	1	2	3	4	5	6	7	8	9	10	
Not really	○	○	○	○	○	○	○	○	○	○	Very much

Have you ever felt rejected by your parents? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	All the time

Do you think your parents are good parents? *

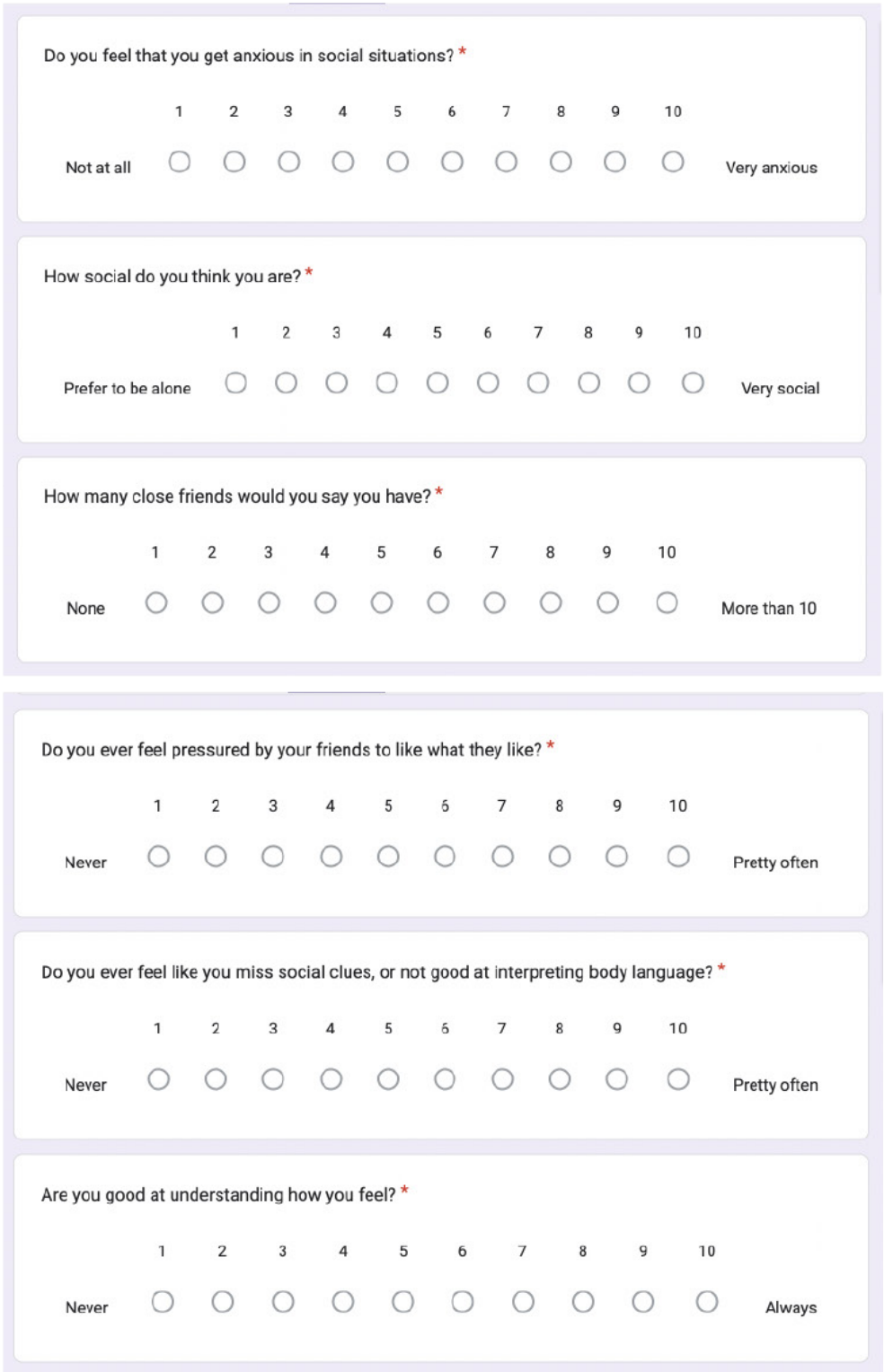
	1	2	3	4	5	6	7	8	9	10	
Not at all	○	○	○	○	○	○	○	○	○	○	Very much

Were you sheltered as a kid/ were your parents strict? *

	1	2	3	4	5	6	7	8	9	10	
Not at all	○	○	○	○	○	○	○	○	○	○	Very much

Do you wish you were more sheltered or less sheltered? *

	1	2	3	4	5	6	7	8	9	10	
Less sheltered	○	○	○	○	○	○	○	○	○	○	More sheltered


Do you feel that you get anxious in social situations? *
1 2 3 4 5 6 7 8 9 10
Not at all
Very anxious
How social do you think you are? *
1 2 3 4 5 6 7 8 9 10
Prefer to be alone
Very social
How many close friends would you say you have? *
1 2 3 4 5 6 7 8 9 10
None
More than 10
Do you ever feel pressured by your friends to like what they like? *
1 2 3 4 5 6 7 8 9 10
Never
Pretty often
Do you ever feel like you miss social clues, or not good at interpreting body language? *
1 2 3 4 5 6 7 8 9 10
Never
Pretty often
Are you good at understanding how you feel? *
1 2 3 4 5 6 7 8 9 10
Never
Always

Do you ever find it hard to express how you feel? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	Always

How often do you see your friends per week? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	Everyday

How often do you talk to them online per week? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	Everyday

Why do you think you need your friends? *

- ○ To hangout with
- ○ To learn from
- ○ As a therapist–to listen'
- ○ To laugh with
- ○ To get out of the house
- ○ Other...

Do you think your friends share qualities with your favorite celebrities? *

	1	2	3	4	5	6	7	8	9	10	
Not at all	○	○	○	○	○	○	○	○	○	○	They are very similar

How would you react if one of your friends did not like your celebrity? *

	1	2	3	4	5	6	7	8	9	10	
Would not care	○	○	○	○	○	○	○	○	○	○	I would be upset

Do you discuss your favorite celebrity with your friends? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	All the time

How many celebrities do you follow online? *

	1	2	3	4	5	6	7	8	9	10	
None	○	○	○	○	○	○	○	○	○	○	More than 20

How often do you check their account? *

	1	2	3	4	5	6	7	8	9	10	
Not often	○	○	○	○	○	○	○	○	○	○	Atleast every hour

Have you ever messaged a celebrity? *

- ○ Yes
- ○ No

What did you send? *

	1	2	3	4	5	6	7	8	9	10	
One word	○	○	○	○	○	○	○	○	○	○	More than one paragraph

Do you think your celebrity would like you? *

	1	2	3	4	5	6	7	8	9	10	
I don't know	○	○	○	○	○	○	○	○	○	○	Yes

Do you feel good when something good happens to your celebrity? *

	1	2	3	4	5	6	7	8	9	10	
I do not care	○	○	○	○	○	○	○	○	○	○	I get very happy

Do you feel upset when something bad happens to your celebrity? *

	1	2	3	4	5	6	7	8	9	10	
I do not care	○	○	○	○	○	○	○	○	○	○	I get upset

Have you ever wanted to be famous? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	Yes, often

Have you ever tried to be famous through social media? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	Yes I do

Do you think you're more talented than your celebrity? *

	1	2	3	4	5	6	7	8	9	10	
Never	○	○	○	○	○	○	○	○	○	○	I think I could be

Name:	Are you close to your parents, how much would you say?	Do you like spending time with your family; if so how much?	When you're down, do you want to talk to your parents for reassurance or comfort?	Have you ever felt rejected by your parents?	Do you think your parents are good parents?	Were you sheltered as a kid/ were your parents strict?	Do you wish you were less sheltered or more sheltered?
	Relationship to family						
Description of scale/ What am I doing	(1=close, 10=not close)	(1=without family, 0=with family)	(1 = no, 0 = yes)	(1 = very much,10 = not at all)	(1=yes; 10=not at all)	(1=all the time; 10=never)	(1=more sheltered, 10=less sheltered)
Participant 1	8	2	5	5	1	7	4
Participant 2	10	6	2	1	9	9	3
Participant 3	9	3	7	2	1	8	3
Participant 4	8	6	1	10	7	10	2
Participant 5	8	4	6	5	3	7	3
Participant 6	9	1	1	2	1	4	5
Participant 7	9	7	5	5	10	2	5
Participant 8	6	2	3	2	1	3	5
Participant 9	1	2	5	2	2	9	2
Participant 10	6	6	8	7	5	2	6
Participant 11	7	1	1	6	1	3	5
Participant 12	10	6	3	10	5	4	8
Participant 13	10	8	7	5	9	2	3
Participant 14	10	8	2	3	10	2	5
Participant 15	10	9	9	6	8	10	3
Participant 16	7	7	1	9	3	9	4
Participant 17	8	3	4	5	2	8	5
Participant 18	7	1	2	8	1	6	6
Participant 19	1	1	3	5	1	4	2
Participant 20	2	5	2	7	5	9	2
Participant 21	2	5	5	6	1	3	5
Participant 22	10	3	4	3	1	7	5
Participant 23	8	4	2	4	1	6	4
Participant 24	7	1	2	4	1	5	6
Participant 25	7	3	7	4	1	7	6
Participant 26	10	2	3	8	5	5	5
Participant 27	3	2	3	3	1	3	5
Participant 28	2	3	6	4	3	8	5
Participant 29	1	1	1	1	1	4	4
Participant 30	2	1	1	6	1	5	5
Participant 31	2	9	3	7	8	8	5
Participant 32	2	1	4	8	1	1	5
Participant 33	3	5	2	1	8	4	8
Participant 34	3	7	5	6	8	4	5
Participant 35	2	8	4	2	9	6	1
Participant 36	7	10	10	7	10	10	5
Participant 37	7	1	5	7	3	9	5
Participant 38	1	6	3	8	9	7	1
Participant 39	1	10	10	4	10	8	1
Participant 40	2	4	4	3	9	8	3
Participant 41	2	7	3	6	7	6	5

B2 - Family relationship question data

Appendix B: Full coded interview data

Name:	Favorite celebrity	Social media hours	Can you describe your economic class?	How much have you spent on your favorite celebrity? (Tickets, merchandise, etc.)	How much would you spend, or would again in the future?	Have you bought anything because your favorite celebrity uses it as well (i.e. certain products)?	Was the thing that you bought useful to you/worth the price?	A. Have you ever sent fan mail or gift your favorite celebrity?	B. Would you ever send fan mail or a gift to your favorite celebrity?	Would you ever spend money for something your celebrity owned or used or wore?
			Economic status/spending							
Description of scale/ What am I doing		Number of hours	(1=low, 10=high)	(1=$0, 10=$300+)	(1=$0, 10=$100+)	(1=yes, 0=no)	(1=yes, 0=no)	(1=yes, 0 = no)	(1=yes, 0=no)	(1=yes, 0=no)
Participant 1	Ryan Gosling	5	5	2	3	1	1	0	0	0
Participant 2		5	6	4	7	1	1	0	0	0
Participant 3	Sum Sulek, Jason kelce, Kanye	4	6	3	5	0	0	0	0	0
Participant 4	Tom Holland	6	5	1	1	0	0	0	0	0
Participant 5	Kali Uchis, Michael B Jordan	2	6	2	4	0	0	0	0	0
Participant 6	Taylor Swift	6	7	6	7	0	0	0	0	1
Participant 7	Micheal Cera Dominic Fike	2	6	5	5	0	0	0	0	0
Participant 8	Tay Tawan	5	4	3	5	0	0	0	1	0
Participant 9	Alex Hormozi, Iman Ghadzi, Hamza, Graham Stephan, Patrick Bet-David	0	10	10	8	0	1	0	0	0
Participant 10	Jenna Ortega	6	4	1	6	0	0	0	1	0
Participant 11	Ana Siowel, Lexi Hidalgo, Natalie Zacek	8	8	1	1	1	1	0	0	0
Participant 12	Johnnie Guilbert, Tara Yummy, Kurtis Connor	2	8	2	3	1	1	0	0	1
Participant 13	Tom Holland	7	6	4	3	1	1	0	1	1
Participant 14	Dave Grohl	6	5	3	8	0	1	0	0	1
Participant 15		7	8	1	5	0	0	0	0	0
Participant 16	Ghost/PALS	4	6	1	4	0	0	0	1	0
Participant 17	Taylor Swift, Sam Claflin	4	8	3	5	0	1	0	0	0
Participant 18	Taylor Swift	3	7	8	8	0	0	0	0	0
Participant 19	Taylor swift, Kelsea Ballerini, Jelly roll	3	5	10	5	1	1	0	1	0
Participant 20	Drake	4	9	10	10	1	0	0	0	0
Participant 21		2	7	10	7	1	1	0	0	0
Participant 22	Taylro Swift/Wilbur Soot	12	5	3	10	0	0	0	1	0
Participant 23	Renee Rapp, Dylan O'Brien, Florence Pugh, Maya Hawke	3	7	2	5	0	0	0	0	1
Participant 24	Taylor Swift	10	6	4	5	0	0	0	1	1
Participant 25	Drake	4	9	10	4	1	0	0	0	0
Participant 26	Shawn Mendes	8	6	6	10	0	0	0	0	0
Participant 27	Jayden Bartels	4	8	1	6	0	0	0	1	0
Participant 28	Olivia Rodrigo, Rachel Zegler	5	7	1	5	1	1	0	0	1
Participant 29	Harry Styles	6	8	10	10	1	0	0	0	1
Participant 30	Lana Del Rey	4	6	10	10	1	1	0	1	1
Participant 31	SZA, Brent Faiyaz, Lana Del Ray, Christian Bale	3	7	1	3	0	0	0	0	1
Participant 32	Cillian Murphy, Tom Hiddleston, etc.	3	6	9	9	0	0	0	0	1
Participant 33		8	8	4	5	1	1	0	0	1
Participant 34		4	6	2	10	1	0	0	1	1
Participant 35	Taylor Swift/Zach Bryan	8	7	10	10	1	1	0	0	1
Participant 36	Paris Hilton, Elvis Presley, Britney Spears	7	8	8	9	0	0	0	0	0
Participant 37	Jacob Elordi	5	7	10	10	0	0	0	0	1
Participant 38	Harry Styles	6	6	10	10	0	0	1	1	1
Participant 39	Harry Styles, Taylor Swift and Matty Healey	6	8	10	10	1	0	0	0	0
Participant 40	Taylor Swift + Harry Styles	8	7	9	10	1	1	0	0	0
Participant 41	Callum Turner, ATJ, Gojo	9	5	1	10	0	0	0	0	0

B1 - Socioeconomic question data

Name:	Do you feel that you get anxious in social situations?	How social do you think you are?	How many close friends would you say you have?	Do you ever feel pressured by your friends to like what they like?	Do you ever feel like you miss social clues, or not good at interpreting body language?	Are you good at understanding how you feel?	Do you ever find it hard to express how you feel?	How often do you see your friends per week?	How often do you talk to them online per week?	Why do you think you need your friends?	Do you think your friends share qualities with your favorite celebrities?	How would you react if one of your friends did not like your celebrity?	Do you discuss your favorite celebrity with your friends?
	Relationship with friends/other social spaces												
Description of scale/ What am I doing	(1=not at all, 10=very much)	(1=very social, 10 = antisocial)	(1=none, 10=10+)	(1=never, 10=always)	(1=never, 10=all the time)	(1=not at all, 10=very well)	(1=everyday, 10=never)	(1=everyday 10=once a week)	(1=everyday, 10=less than once a week)	(to hangout, as a therapist, to talk about celebrity, etc.)	(1=no, 10=they are the	(1=I would not care, 10=stop being friends with them)	(1=not really, 10=always)
Participant 1	3	3	7	4	3	3	7	8	10	3	2	1	1
Participant 2	1	7	6	2	6	2	3	10	7	5	4	3	2
Participant 3	2	5	7	7	3	8	4	8	10	5	6	2	4
Participant 4	9	3	6	5	3	8	3	8	1	3	4	2	1
Participant 5	7	6	5	5	6	5	6	7	5	3	3	4	6
Participant 6	3	4	7	2	2	8	4	5	7	5	2	1	10
Participant 7	6	5	4	4	7	8	7	7	3	5	5	1	3
Participant 8	2	7	8	3	1	8	2	5	10	3	4	4	3
Participant 9	2	1	1	2	2	5	3	5	9	5	2	2	7
Participant 10	8	5	3	5	6	5	7	4	4	8	2	7	1
Participant 11	6	5	4	9	1	10	1	10	10	6	3	1	6
Participant 12	10	1	8	2	2	10	3	10	10	5	4	1	6
Participant 13	4	6	3	6	2	9	6	7	8	5	2	3	4
Participant 14	2	7	9	9	2	9	4	9	9	5	2	1	1
Participant 15	8	5	4	7	10	8	5	5	10	5	6	1	5
Participant 16	10	7	3	7	7	5	8	10	10	6	2	1	8
Participant 17	7	4	10	8	3	6	7	9	9	3	6	4	7
Participant 18	8	3	7	4	5	3	9	7	10	5	6	2	9
Participant 19	6	1	8	4	1	3	6	6	10	5	7	4	10
Participant 20	5	4	7	1	8	5	7	3	10	5	5	1	2
Participant 21	4	2	5	2	3	9	6	10	10	3	5	6	7
Participant 22	4	4	4	8	8	9	2	2	10	5	4	1	2
Participant 23	4	6	4	6	4	7	7	8	9	3	7	7	8
Participant 24	4	5	10	1	3	10	8	8	10	8	7	5	10
Participant 25	3	1	5	8	7	3	8	8	5	5	3	5	9
Participant 26	6	3	5	1	2	5	8	3	10	2	5	3	9
Participant 27	3	3	5	7	4	9	4	7	10	5	7	2	8
Participant 28	6	3	6	3	8	8	7	8	7	2	3	1	8
Participant 29	2	1	10	5	2	8	3	7	8	3	7	2	10
Participant 30	7	7	2	5	4	7	4	5	3	3	2	9	8
Participant 31	6	8	5	6	4	6	8	10	6	5	5	6	3
Participant 32	8	5	4	1	1	9	10	7	9	2	7	7	9
Participant 33	3	10	7	8	5	6	3	7	10	10	8	2	7
Participant 34	6	9	9	6	3	7	7	10	6	5	3	7	7
Participant 35	3	9	4	5	4	5	5	10	6	5	7	2	7
Participant 36	8	8	9	4	10	10	2	10	7	8	5	3	8
Participant 37	9	2	7	5	3	6	7	10	8	3	5	4	9
Participant 38	8	7	6	7	2	10	2	2	4	5	8	10	10
Participant 39	5	7	10	7	5	8	6	8	4	5	6	4	3
Participant 40	2	10	10	7	4	6	7	9	10	5	5	4	7
Participant 41	2	7	10	1	1	8	10	9	8	5	1	1	1

B3 - Non-family relationship question data

A	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
Name:	How many celebrities do you follow online?	How often do you check their account?	Have you ever messaged a celebrity?	What did you send?	Do you think your celebrity would like you?	If they joined us right now what would they be like?	Do you feel good when something good happens to your celebrity?	Do you feel upset when something bad happens to your celebrity?	Have you ever wanted to be famous?	Have you ever tried to be famous through social media?	Do you think you're more talented than your celebrity?	*Sums*	*Averages*
	Social media interaction				Attraction to fame								
Description of scale/ What am I doing	(1 = 0; 10 = 20+)	(1 = never; 10 = constantly)	(1 = never; 10 = more than 10 times)	(1 = nothing; 10 = long paragraphs/words of love)	(1=not at all; 10=very much)	(1=no clue/don't care; 10=they'd be like me)	(1=do not care; 10=I feel their pain)	(1=do not care; 10=I feel their pain)	(1=not really; 10=very much)	(1=no; 10=all the time)	(1=no; 10=very much)		
Participant 1	4	4	0	1	4	5	1	3	6	2	1	137.00	3.43
Participant 2	2	1	1	2	1	7	1	1	4	1	1	104.00	3.60
Participant 3	5	2	0	1	1	6	2	2	4	1	1	147.00	3.68
Participant 4	2	3	0	1	3	6	10	8	8	2	3	159.00	3.98
Participant 5	8	4	1	3	4	6	3	6	3	1	1	158.00	3.95
Participant 6	6	6	2	2	6	7	7	3	7	3	2	161.00	4.03
Participant 7	4	4	0	1	4	7	1	5	2	1	1	156.00	3.90
Participant 8	7	5	0	1	6	8	5	1	8	4	5	150.00	3.75
Participant 9	6	8	0	1	10	9	7	3	10	5	10	167.00	4.18
Participant 10	4	8	0	1	6	9	6	6	5	1	1	170.00	4.25
Participant 11	10	5	1	5	5	8	1	7	10	9	7	184.00	4.60

B4 - Social media interaction and attraction to fame questions; sums and averages of all data

Appendix C: Significant linear regressions

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.8885729178							
R Square	0.7895618302							
Adjusted R Square	0.7840239836							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	198.5748003	198.5748003	142.5756058	0			
Residual	38	52.92519971	1.392768413					
Total	39	251.5						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.688453159	0.4251597266	1.619281216	0.01136577884	-0.172237703	1.549144021	-0.172237703	1.549144021
X Variable 1	0.9077705156	0.07602448029	11.94050275	0	0.7538670027	1.061674029	0.7538670027	1.061674029

Correlation between childhood rejection and social anxiety

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.8859522903							
R Square	0.7849114608							
Adjusted R Square	0.779251236							
Standard Error	1.18473382							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	194.6384195	194.6384195	138.6714309	0			
Residual	38	53.33658052	1.403594224					
Total	39	247.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.8564612326	0.4346414371	1.970500646	0.05609870632	-0.02342434866	1.736346814	-0.02342434866	1.736346814
X Variable 1	0.87972167	0.07470536492	11.77588345	0	0.7284885665	1.030954773	0.7284885665	1.030954773

Correlation between social anxiety and increased anxiety when something negative occurs in celebrity's life

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9169198469							
R Square	0.8407420056							
Adjusted R Square	0.8365510058							
Standard Error	1.051069722							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	221.6195927	221.6195927	200.6065462	0			
Residual	38	41.98040732	1.104747561					
Total	39	263.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	1.204949729	0.339624606	3.547887015	0.001051962397	0.5174156649	1.892483794	0.5174156649	1.892483794
X Variable 1	0.7558649136	0.05336685821	14.16356404	0	0.6478293583	0.863900469	0.6478293583	0.863900469

Correlation between frequent checking social media and thinking the celebrity will like the participant

Appendix D: Non-significant linear regressions

Col C(x)/Col AN(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.7135854593							
R Square	0.5092042078							
Adjusted R Square	0.496288529							
Standard Error	1.753171027							
Observations	40							
ANOVA								
Residual	38	116.7971287	3.073608649					
Total	39	237.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	2.725345113	0.6583782968	4.139482006	0.0001862794888	1.392527943	4.058162284	1.392527943	4.058162284
X Variable 1	0.7316399779	0.1165225696	6.278955062	0.000000236012580 6	0.4957523701	0.9675275857	0.4957523701	0.9675275857

Correlation between social media hours and wanting to be famous

Col C(x)/Col Y(y)								
SUMMARY OUTPUT								
Multiple R	0.2595746279							
R Square	0.06737898747							
Adjusted R Square	0.04283632924							
Standard Error	2.246323781							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	13.85311982	13.85311982	2.745382625	0.10577089			
Residual	38	191.7468802	5.045970531					
Total	39	205.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	6.667807841	0.8435747584	7.904228729	0.000000001522715647	4.960080038	8.375535644	4.960080038	8.375535644
X Variable 1	-0.2473771397	0.1492994209	-1.656919619	0.1057708976	-0.5496180135	0.05486373413	-0.5496180135	0.05486373413

Correlation between social media hours and participant's difficulty expressing their emotions

Col C(x)-Col AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2421295439							
R Square	0.05862671603							
Adjusted R Square	0.03385373487							
Standard Error	3.099909578							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	22.74130315	22.74130315	2.366558779	0.1322463159			
Residual	38	365.1586969	9.609439391					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	7.174378796	1.164126692	6.162884886	0.0000003403713862	4.817727534	9.531030058	4.817727534	9.531030058
X Variable 1	-0.3169519602	0.206032055	-1.538362369	0.1322463177	-0.7340420464	0.100138126	-0.7340420464	0.100138126

Correlation between social media hours and frequency of messaging a celebrity

Col D(x)/Col L(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2293419042							
R Square	0.05259770904							
Adjusted R Square	0.02830534261							
Standard Error	*3.327370452*							
Observations	*41*							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	*1*	*23.97172661*	*23.97172661*	*2.165194947*	*0.1491904622*			
Residual	*39*	*431.7843709*	*11.07139413*					
Total	40	455.7560976						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	9.368677043	2.606869422	3.593842086	0.0009024945313	4.095785982	14.6415681	4.095785982	14.6415681
X Variable 1	-0.5645265888	0.3836506156	-1.471460141	0.1491904633	-1.340533198	0.2114800205	-1.340533198	0.2114800205

Correlation between economic class and closeness to parents

Col D(x)/Col AN(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.08913554226							
R Square	0.007945144895							
Adjusted R Square	-0.01816156182							
Standard Error	2.492537568							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	1.890745856	1.890745856	0.3043334796	0.5844082051			
Residual	38	236.0842541	6.21274353					
Total	39	237.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.392265193	2.001846947	2.693645087	0.01046065431	1.339737951	9.444792436	1.339737951	9.444792436
X Variable 1	0.1616022099	0.292935786	0.5516642816	0.5844081978	-0.4314152806	0.7546197005	-0.4314152806	0.7546197005

Correlation between economic class and wanting to be famous

Col E-F(x)/Col AJ(y)								
SUMMARY OUTPUT								
R Square	0.279534572							
Adjusted R Square	0.2405904948							
Standard Error	2.811611792							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	113.4840479	56.74202393	7.177845572	0.002321898315			
Residual	37	292.4909521	7.905160869					
Total	39	405.975						
	Coefficients	*Standard Error*	*t Stat*	*F-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intereept	2.642424215	1.140781133	2.31632882	0.02618406097	0.3309820999	4.953866331	0.3309820999	4.953866331
X Variable 1	0.4098232926	0.1639353035	2.499908708	0.01698369106	0.0776588189	0.7419877663	0.0776588189	0.7419877663
X Variable 2	0.1043683522	0.2140211403	0.4876544069	0.6286718053	-0.3292796658	0.5380163702	-0.3292796658	0.5380163702

Correlation between how much participant has spent/would spend and thinking the celebrity would like them

Col E-F(x)/Col AN(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	*0.2316130636*							
R Square	0.05364461122							
Adjusted R Square	0.00249026588							
Standard Error	2.467129438							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	12.76607636	6.383038178	1.048681414	0.3605817978			
Residual	37	225.2089236	6.086727666					
Total	39	237.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	*5.208611152*	*1.001011137*	*5.203349854*	*0.000007513686495*	*3.180369947*	*7.236852356*	*3.180369947*	*7.236852356*
X Variable 1	*-0.07740142153*	*0.1438497357*	*-0.5380713503*	*0.5937499924*	*-0.3688686696*	*0.2140658265*	*-0.3688686596*	*0.2140658265*
X Variable 2	*0.256359588*	*0.1877989903*	*1.365074368*	*0.1804731679*	*-0.1241573078*	*0.6368764837*	*-0.1241573078*	*0.6368764837*

Correlation between how much participant has/would spend on their celebrity and wanting to be famous

Col G-K(x)/Col AK(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.5475352913							
R Square	0.2997948952							
Adjusted R Square	0.1968235562							
Standard Error	2.313536297							
Observations	40							
ANOVA								
Regression	5	77.91669325	15.58333865	2.911440195	0.02713730645			
Residual	34	181.9833067	5.352450198					
Total	39	259.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.842393715	0.6107561231	9.565837319	0	4.60118797	7.083599459	4.60118797	7.083599459
X Variable 1	1.276418298	0.9219502643	1.384476308	0.1752323628	-0.5972100148	3.15004661	-0.5972100148	3.15004661
X Variable 2	-1.079554405	0.9409301719	-1.147326802	0.2592561858	-2.99175453	0.8326457192	-2.99175453	0.8326457192
X Variable 3	0.463148419	2.499366713	0.1853063084	0.8540898274	-4.616175725	5.542472563	-4.616175725	5.542472563
X Variable 4	0.155203569	0.8534652088	0.1818510789	0.8567794681	-1.579246369	1.889653507	-1.579246369	1.889653507
X Variable 5	2.539254297	0.772313676	3.287853597	0.002351666598	0.9697241117	4.108784483	0.9697241117	4.108784483

Correlation between buying products used by the celebrity, having or wanting to send fan mail to the celebrity or spending money on something the celebrity used or wore and wanting the celebrity to like them

Col G(x)/Col V(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	*0.003220729305*							
R Square	0.00001037309726							
Adjusted R Square	-0.0263051434							
Standard Error	2.416487763							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	*1*	*0.002301790281*	*0.002301790281*	*0.0003941817846*	*0.984263716*			
Residual	38	221.8976982	5.839413111					
Total	39	221.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	*4.956521739*	*0.5038725301*	*9.836856434*	*0*	*3.936485139*	*5.97655834*	*3.936485139*	*5.97655834*
X Variable 1	-0.01534526854	0.7729051788	-0.0198540118	0.9842637313	-1.580009989	1.549319451	-1.580009989	1.549319451

Correlation between if the participant has bought a product because of a celebrity and how pressured the participant feels to share their friends' likes

Col G-K(x)/Col AN(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.3029285007							
R Square	0.09176567654							
Adjusted R Square	-0.04179819456							
Standard Error	2.546604359							
Observations	40							
ANOVA								
Regression	5	22.27841212	4.455682424	0.6870546338	0.63652297			
Residual	34	220.4965879	6.485193761					
Total	39	242.775						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
X Variable 1	1.286638116	1.014824496	1.267837985	0.2134697477	-0.7757414682	3.349017701	-0.7757414682	3.349017701
X Variable 2	-1.075503545	1.03572046	-1.038411025	0.3064075441	-3.180340706	1.029333617	-3.180340706	1.029333617
X Variable 3	1.855406774	2.751155525	0.6744099914	0.5046107637	-3.735613787	7.446427335	-3.735613787	7.446427335
X Variable 4	0.7212253192	0.9394441849	0.7677149221	0.4479557304	-1.187954916	2.630405555	-1.187954916	2.630405555
X Variable 5	0.2276623488	0.850117362	0.2678010814	0.7904704117	-1.499983946	1.955308644	-1.499983946	1.955308644

Correlation between buying products used by the celebrity, having or wanting to send fan mail to the celebrity or spending money on something the celebrity used or wore and wanting to be famous

Col L(x)/Col AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9448107681							
R Square	0.8926673876							
Adjusted R Square	0.8899152693							
Standard Error	1.040991522							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	351.493227	351.493227	324.3564779	0			
Residual	39	42.2628706	1.083663349					
Total	40	393.7560976						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	10.53623033	0.3182080337	33.11113868	0	9.892593838	11.17986683	9.892593838	11.17986683
X Variable 1	-0.8781975811	0.04876193695	-18.00989944	0	-0.9768279073	-0.7795672549	-0.9768279073	-0.7795672549

Correlation between closeness to parents and thinking the celebrity would like the participant

Col M(x)/Col C(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.06398154381							
R Square	0.004093637948							
Adjusted R Square	-0.02211442421							
Standard Error	*2.435744254*							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	*1*	*0.9266972906*	*0.9266972906*	*0.1561976587*	*0.6948915861*			
Residual	*38*	*225.4483027*	*5.932850071*					
Total	*39*	*226.375*						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.891311118	0.7056525556	6.931613978	0.00000003043622027	3.462792215	6.319830021	3.462792215	6.319830021
X Variable 1	0.05372158206	0.135928816	0.3952184949	0.694891587	-0.2214519174	0.3288950815	-0.2214519174	0.3288950815

Correlation between liking to spend time with family and social media hours

Col N(x)/ Col AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.09299624808							
R Square	0.008648302158							
Adjusted R Square	-0.01743990042							
Standard Error	3.18113404							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	3.354676407	3.354676407	0.3315024151	0.568170093			
Residual	38	384.5453236	10.11961378					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	6.022944747	0.963185708	6.253150039	0.0000002560202828	4.073077238	7.972812257	4.073077238	7.972812257
X Variable 1	-0.1175018006	0.204080342	-0.5757624641	0.568170087	-0.5306408505	0.2956372493	-0.5306408505	0.2956372493

Correlation between participant's comfort turning to parents for reassurance and thinking their celebrity would like them

Col M-N(x)/Col AL(y)								
SUMMARY OUTPUT								
Regression Statistics								
R Square	0.185712874							
Adjusted R Square	0.1416973537							
Standard Error	2.849616344							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	68.52340768	34.26170384	4.219258857	0.0223555325			
Residual	37	300.4515923	8.120313306					
Total	39	368.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	8.177203291	0.952681036	8.583358944	0.000000002481551405	6.246888171	10.10751841	6.246888171	10.10751841
X Variable 1	-0.3230333265	0.1780584454	-1.814198286	0.07776269736	-0.6838140036	0.03774735073	-0.6838140036	0.03774735073
X Variable 2	-0.2477039306	0.204692502	-1.210127035	0.2339046836	-0.6624503322	0.1670424711	-0.6624503322	0.1670424711

Correlation between participant's comfort level turning to family for reassurance and feeling increased joy when their celebrity is happy

Col N(x)/Col V(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1164951441							
R Square	0.0135711186							
Adjusted R Square	-0.01238753617							
Standard Error	2.400046978							
Observations	40							
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	3.011431217	3.011431217	0.522797453	0.4740779875			
Residual	38	218.8885688	5.760225494					
Total	39	221.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.501903488	0.7266876901	6.195100796	0.0000003074689488	3.030801182	5.973005794	3.030801182	5.973005794
X Variable 1	0.111328326	0.1539710059	0.723047338	0.4740779853	-0.2003696772	0.4230263291	-0.2003696772	0.4230263291

Correlation between participant's comfort turning to parents for reassurance and feeling pressured by friends to have similar likes

Col N(x)/Col V(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1164951441							
R Square	0.0135711186							
Adjusted R Square	-0.01238753617							
Standard Error	2.400046978							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	3.011431217	3.011431217	0.522797453	0.4740779875			
Residual	38	218.8885688	5.760225494					
Total	39	221.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.501903488	0.7266876901	6.195100796	0.0000003074689488	3.030801182	5.973005794	3.030801182	5.973005794
X Variable 1	0.111328326	0.1539710059	0.723047338	0.4740779853	-0.2003696772	0.4230263291	-0.2003696772	0.4230263291

Correlation between participant's comfort level turning to family for reassurance and feeling pressured to share friends' likes

Col O(x)/Col C(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2017674648							
R Square	0.04071010984							
Adjusted R Square	0.01546563905							
Standard Error	2.390547443							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	9.215751115	9.215751115	1.61263471	0.211843332			
Residual	38	217.1592489	5.714717076					
Total	39	226.375						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	6.107687519	0.8612119192	7.091968171	0.00000001847300099	4.364255151	7.851119888	4.364255151	7.851119888
X Variable 1	-0.1955597054	0.1539966852	-1.269895551	0.2118433334	-0.5073096935	0.1161902827	-0.5073096935	0.1161902827

Correlation between childhood rejection and social media hours

O,AG(x)/AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.919969116							
R Square	0.8463431745							
Adjusted R Square	0.8380374001							
Standard Error	1.269214299							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	328.2965174	164.1482587	101.8981661	0			
Residual	37	59.60348263	1.610904936					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.02546081453	0.6249866822	0.04073817131	0.9677236783	-1.240882481	1.29180411	-1.240882481	1.29180411
X Variable 1	-0.09495829742	0.0817652282	-1.161353053	0.2529359939	-0.2606303852	0.07071379042	-0.2606303852	0.07071379042
X Variable 2	1.111426783	0.07817752996	14.21670375	0	0.9530240626	1.269829504	0.9530240626	1.269829504

Correlation between childhood rejection/frequency of checking celebrity's social media accounts and thinking that the celebrity will like the participant

O,S,AG(x)/AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9203184297							
R Square	0.846986012							
Adjusted R Square	0.8342348463							
Standard Error	1.28402715							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	3	328.545874	109.5152913	66.42420262	0			
Residual	36	*59.35412595*	*1.648725721*					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	0.05839244132	0.6379260283	0.09153481552	0.9275751032	-1.235381501	1.352166383	-1.235381501	1.352166383
X Variable 1	-0.0323894648	*0.1809067122*	*-0.1790395968*	*0.8589104718*	*-0.3992852799*	*0.3345063503*	*-0.3992852799*	*0.3345063503*
X Variable 2	-0.06889663525	0.1771583876	-0.3888985228	0.6996419828	-0.4281904959	0.2903972254	-0.4281904959	0.2903972254
X Variable 3	1.114087399	0.07938527623	14.03392987	0	0.9530865976	1.2750882	0.9530865976	1.2750882

Correlation between childhood rejection, social anxiety, or frequency of checking celebrity's social media accounts and thinking that the celebrity will like the participant

Col P(x)/Col X(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.09093270614							
R Square	0.008268757046							
Adjusted R Square	-0.01782943356							
Standard Error	2.282366939							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	1.650443906	1.650443906	0.3168325794	0.576823569			
Residual	38	197.9495561	5.209198845					
Total	39	199.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	6.646085553	0.5776857885	11.50467206	0	5.476621824	7.815549282	5.476621824	7.815549282
X Variable 1	0.05770782889	0.102522649	0.5628788319	0.5768235623	-0.1498384216	0.2652540794	-0.1498384216	0.2652540794

Correlation between participant rating if their parents were good at parenting and participant's understanding of their feelings

Col Q(x)/Col V(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.07224092607							
R Square	0.0052187514							
Adjusted R Square	-0.02095970251							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	1.158040936	1.158040936	0.1993529266	0.6577778181			
Residual	38	220.7419591	5.808998923					
Total	39	221.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.566154971	0.9403728986	4.855685418	0.00002081711631	2.662469579	6.469840362	2.662469579	6.469840362
X Variable 1	0.06505847953	0.1457118881	0.4464895593	0.6577778022	-0.2299181944	0.3600351535	-0.2299181944	0.3600351535

Correlation between how sheltered participant was and feeling pressured by friends to share their likes

Col R(x)/Col AB(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.283514299							
R Square	0.08038035773							
Adjusted R Square	0.05617984083							
Standard Error	1.532928632							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	7.804932735	7.804932735	3.321431441	0.07625862205			
Residual	38	89.29506726	2.349870191					
Total	39	97.1						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	3.725560538	0.662883993	5.620230051	0.000001889368118	2.383622063	5.067499014	2.383622063	5.067499014
X Variable 1	0.264573991	0.145172549	1.822479476	0.0762586247	-0.0293124674	0.5584604495	-0.0293124674	0.5584604495

Correlation between participant wishing they were less sheltered and needing their friends as an emotional (therapist-like) outlet

Col Q-R(x)/Col Y(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1061127367							
R Square	0.01125991289							
Adjusted R Square	-0.04218549723							
Standard Error	2.343968464							
Observations	40							
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	2.31503809	1.157519045	0.210680634	0.8109977215			
Residual	37	203.2849619	5.49418816					
Total	39	205.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.71033546	1.691637448	2.784482848	0.008399653859	1.282752438	8.137918481	1.282752438	8.137918481
X Variable 1	0.0091907822 09	0.1559853308	0.05892081111	0.9533322759	-0.3068655169	0.3252470813	-0.3068655169	0.3252470813
X Variable 2	0.1495150413	0.2443455145	0.6119000857	0.5443458919	-0.3455759948	0.6446060773	-0.3455759948	0.6446060773

Correlation between level of sheltering in childhood and participant's level of difficulty expressing themselves

Col S(x)/Col AF(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.05568676471							
R Square	0.003101015764							
Adjusted R Square	-0.02246049665							
Standard Error	2.722194849							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.8989920335	0.8989920335	0.1213158171	0.7294849334			
Residual	39	289.003447	7.410344795					
Total	40	289.902439						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	7.351779393	0.968251765	7.592838617	0.000000003335315806	5.393305357	9.310253428	5.393305357	9.310253428
X Variable 1	-0.05859884479	0.1682404188	-0.3483042019	0.7294849351	-0.3988972091	0.2816995195	-0.3988972091	0.2816995195

Correlation between social anxiety levels and amount of celebrities participant follows online

Col S(x)/Col AG(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.02229617161							
R Square	0.0004971192686							
Adjusted R Square	-0.02513115972							
Standard Error	3.117088888							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.1884688271	0.1884688271	0.01939729425	0.8899502391			
Residual	39	378.9334824	9.716243138					
Total	40	379.1219512						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.714924539	1.108710796	5.154567412	0.0000076814115	3.472345299	7.957503778	3.472345299	7.957503778
X Variable 1	0.02683063164	0.1926461437	0.1392741693	0.8899502473	*-0.3628329703*	*0.4164942336*	-0.3628329703	0.4164942336

Correlation between social anxiety and how often participant checks celebrity social media account

S,AG(x)/AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	*0.920244405*							
R Square	0.846849765							
Adjusted R Square	0.8385713739							
Standard Error	1.267120338							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	*2*	*328.4930239*	*164.2465119*	*102.2964193*	*0*			
Residual	37	59.40697615	1.60559395					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	*0.03751392844*	*0.6189188037*	*0.0606120354*	*0.9519944161*	*-1.216534677*	*1.291562534*	*-1.216534677*	*1.291562534*
X Variable 1	-0.09710499854	0.07993897896	-1.21473904	0.2321612376	-0.259076754	0.06486675689	-0.259076754	0.06486675689
X Variable 2	1.115238391	0.07808271192	14.2827825	0	0.9570277903	1.273448993	0.9570277903	1.273448993

Correlation between social anxiety/frequency of checking celebrity's social media accounts and thinking that the celebrity will like the participant

Col AF+AG(x)/Col AO(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.213943288							
R Square	0.04577173049							
Adjusted R Square	-0.005808175974							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	9.520519941	4.760259971	0.8873946005	0.4203075142			
Residual	37	198.4794801	5.364310272					
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	1.948640411	1.050015973	1.855819779	0.0714579231	-0.1788940236	4.076174846	-0.1788940236	4.076174846
X Variable 1	0.2042170882	0.1533405029	1.331788303	0.191076238	-0.1064802808	0.5149144571	-0.1064802808	0.5149144571
X Variable 2	-0.1265338849	0.2016798215	-0.6273998257	0.5342501453	-0.535176016	0.2821082463	-0.535176016	0.2821082463

Correlation between amount of celebrities followed/how often participants check the accounts and if the participant has attempted to be famous through social media

Col AI(x)/Col AD(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1054593391							
R Square	0.0111216722							
Adjusted R Square	-0.01490144169							
Standard Error	2.433692816							
Observations	40							
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	2.531292593	2.531292593	0.4273766871	0.517215735			
Residual	38	225.0687074	5.922860721					
Total	39	227.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	3.099541951	0.5994181601	5.170917661	0.000007775184962	1.886083336	4.313000565	1.886083336	4.313000565

Correlation between frequency of messaging a celebrity and how upset the participant would be if their friend did not like their celebrity

Col AL-AM(x)/Col AC(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2888305624							
R Square	0.0834230938							
Adjusted R Square	0.03387839617							
Standard Error	1.882796621							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	11.93784472	5.968922361	1.683794589	0.1995835981			
Residual	37	131.1621553	3.544923116					
Total	39	143.1						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	3.75692537	0.8776153538	4.280833686	0.00012653788 12	1.978707768	5.535142971	1.978707768	5.535142971
X Variable 1	0.1807244977	0.09851246846	1.834534252	0.0746255937	-0.01888072189	0.3803297173	-0.01888072189	0.3803297173
X Variable 2	-0.02750855597	0.1201671394	-0.2289191215	0.8201924144	-0.2709903062	0.2159731942	-0.2709903062	0.2159731942

Correlation between participant feelings reflecting those of their celebrity and thinking their friends share qualities with their celebrity

Col V-W(x)/Col AG(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.3090021921							
R Square	0.09548235474							
Adjusted R Square	0.04658950905							
Standard Error	2.009005827							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	15.76413677	7.882068384	1.952890109	0.1562123278			
Residual	37	149.3358632	4.036104412					
Total	39	165.1						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	3.621173615	0.8829242465	4.10134123	0.0002161346536	1.832199175	5.410148055	1.832199175	5.410148055
X Variable 1	0.1129424726	0.135580404	0.8330294736	0.4101733457	-0.1617695181	0.3876544633	-0.1617695181	0.3876544633

Correlation between participant feeling like they miss social cues and frequency checking their celebrity's account

Col Y-AB(x)/Col AJ(y)								
SUMMARY OUTPUT								
Regression Statistics	*0.1906900282*							
Multiple R	0.2200530215							
R Square	0.04842333225							
Adjusted R Square	-0.06032828692							
Standard Error	3.247489533							
Observations	40							
ANOVA								
ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*			
Regression	*df*	*SS*	*MS*	*F*	*Significance F*			
Regression	4	18.78341058	4.695852645	0.4452653912	0.7750489422			
Residual	35	369.1165894	10.54618827					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	7.772865	2.888573857	2.690900556	0.01085073423	1.908748483	13.63698152	1.908748483	13.63698152
X Variable 1	0.1025584541	0.2311912972	0.4436086278	0.6600559092	-0.3667848176	0.5719017259	-0.3667848176	0.5719017259
X Variable 2	-0.1313495687	0.2224534183	-0.590458756	0.5586767145	-0.5829540036	0.3202548663	-0.5829540036	0.3202548663
X Variable 3	-0.231702105	0.2062180791	-1.123578039	0.2688398892	-0.6503470501	0.1869428401	-0.6503470501	0.1869428401
X Variable 4	0.0002129326677	0.3365049519	0.0006327772192	0.9994987172	-0.6829284182	0.6833542835	-0.6829284182	0.6833542835

Correlation between participant difficulty expressing their feelings/how often they see their friends and participant need for their celebrity to like them

Col AP(x)/Col AM(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1185469456							
R Square	0.01405337832							
Adjusted R Square	-0.01189258541							
Standard Error	2.536523281							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	3.484886488	3.484886488	0.5416402515	0.4662726785			
Residual	38	244.4901135	6.433950356					
Total	39	247.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.153057488	0.5934697661	8.682931772	0.0000000001483296506	3.951640767	6.354474209	3.951640767	6.354474209
X Variable 1	0.1129622849	0.1534892637	0.7359621264	0.4662726765	-0.1977604821	0.4236850519	-0.1977604821	0.4236850519

Correlation between participant thinking they are more talented than their celebrity and how upset they are when something negative happens to their celebrity

Col T-U(x)/Col AL(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.07355871054							
R Square	0.005410883896							
Adjusted R Square	-0.04835068995							
Standard Error	3.149339352							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	1.996480885	0.9982404427	0.1006459355	0.9044998397			
Residual	37	366.9785191	9.918338354					
Total	39	368.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	5.925639577	1.620402762	3.656893037	0.0007891690174	2.642391739	9.208887414	2.642391739	9.208887414
X Variable 1	-0.08217972065	0.1972119748	-0.4167075592	0.6792999989	-0.4817691345	0.3174096932	-0.4817691345	0.3174096932
X Variable 2	0.04232861206	0.2095523765	0.2019953807	0.841026877	-0.3822648305	0.4669220546	-0.3822648305	0.4669220546

Correlation between how social the participant is and how much increased joy they feel when something happens to their celebrity

Col AC(x)/Col AD(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.1806390557							
R Square	0.03263046845							
Adjusted R Square	0.007173375514							
Standard Error	2.407080047							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	7.426694619	7.426694619	1.28178298	0.2646615796			
Residual	38	220.1733054	5.794034352					
Total	39	227.6						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	2.34067086	1.010115386	2.317231171	0.02597615977	0.2957991842	4.385542535	0.2957991842	4.385542535
X Variable 1	0.2278127184	0.2012198014	1.132158549	0.2646615801	-0.1795354698	0.6351609065	-0.1795354698	0.6351609065

Correlation between participant thinking friends share qualities with their celebrity and how upset they would be if their friend did not like their celebrity

AF-AG(x)/AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9176672586							
R Square	0.8421131975							
Adjusted R Square	0.8335787757							
Standard Error	1.286565622							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	326.6557093	163.3278546	98.67255466	0			
Residual	37	61.2442907	1.6552511					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	-0.6987195367	0.6381727234	-1.094875276	0.2806475639	-1.991780289	0.5943412156	-1.991780289	0.5943412156
X Variable 1	0.04546795008	0.08020996269	0.5668616286	0.5742312434	-0.1170528705	0.2079887707	-0.1170528705	0.2079887707
X Variable 2	1.09738835	0.08349004841	13.14394196	0	0.9282214447	1.266555256	0.9282214447	1.266555256

Correlation between amount of celebrities participant follows online/how often they check the accounts and thinking the celebrity will like the participant

Col AJ(x)/Col F(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.3844581759							
R Square	0.147808089							
Adjusted R Square	0.1253819861							
Standard Error	2.619508893							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	45.22558005	45.22558005	6.590894975	0.01431009202			
Residual	38	260.74942	6.861826841					
Total	39	305.975						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.629930394	0.8464230838	5.469995423	0.000003034979498	2.916436458	6.343424331	2.916436458	6.343424331
X Variable 1	0.341453983	0.1330025561	2.567273841	0.01431009238	0.07220438699	0.610703579	0.07220438699	0.610703579

Correlation between thinking the celebrity would like the participant and how much the participant has/would spend on the celebrity

Col AC(x)/ Col AJ(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.2831040793							
R Square	0.08014791971							
Adjusted R Square	0.05594128602							
Standard Error	3.06427042							
Observations	40							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	31.08937806	31.08937806	3.310989902	0.07670317974			
Residual	38	356.8106219	9.389753209					
Total	39	387.9						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	3.382599581	1.285901025	2.630528723	0.01224466993	0.7794290728	5.985770089	0.7794290728	5.985770089
X Variable 1	0.4661076171	0.2561576156	1.819612569	0.0767031825	-0.05245636062	0.9846715947	-0.05245636062	0.9846715947

Correlation between participant thinking their friends share qualities with the celebrity and thinking their celebrity would like them

Col AF(x)/Col AO(y)								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.4992724722							
R Square	0.2492730015							
Adjusted R Square	0.2097610542							
Standard Error	2.789092162							
Observations	41							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	98.1527643	49.07638215	6.30880072	0.004306839226			
Residual	38	295.6033333	7.779035086					
Total	40	393.7560976						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	2.694849646	1.122195756	2.401407803	0.02133009033	0.4230831247	4.966616167	0.4230831247	4.966616167
X Variable 1	0.3228593975	0.1504948275	2.145318897	0.03838036469	0.01819854945	0.6275202455	0.01819854945	0.6275202455
X Variable 2	0.1896229951	0.1960280116	0.967326014	0.3394976469	-0.2072149642	0.5864609543	-0.2072149642	0.5864609543

Correlation between amount of celebrities the participant follows online and participant trying to be famous through social media

Appendix E : John Hinkley Jr.'s Letter to Jodie Foster

Dear Jodie:

There is definitely a possibility that I will be killed in my attempt to get Reagan. It is for this very reason that I am writing you this letter now.

As you well know by now I love you very much. Over the past seven months I've left you dozens of poems, letters and love messages in the faint hope that you could develop an interest in me. Although we talked on the phone a couple of times I never had the nerve to simply approach you and introduce myself. Besides my shyness, I honestly did not wish to bother you with my constant presence. I know the many messages left at your door and in your mailbox were a nuisance, but I felt that it was the most painless way for me to express my love for you.

I feel very good about the fact that you at least know my name and how I feel about you. And by hanging around your dormitory, I've come to realize that I'm the topic of more than a little conversation, however full of ridicule it may be. At least you know that I'll always love you. Jodie, I would abandon the idea of getting Reagan in a second if I could only win your heart and live out the rest of my life with you, whether it be in total obscurity or whatever.

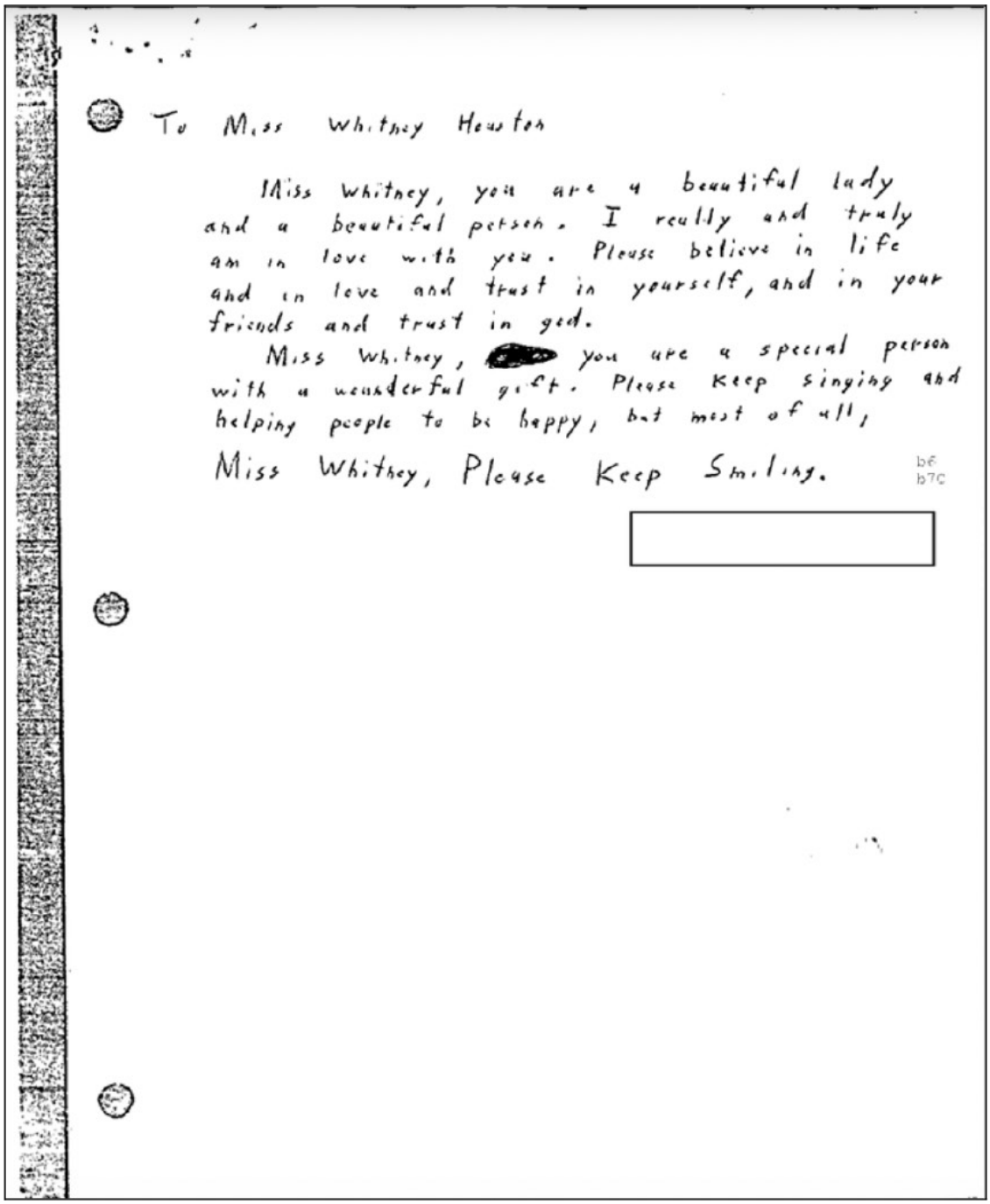
I will admit to you that the reason I'm going ahead with this attempt now is because I cannot wait any longer to impress you. I've got to do something now to make you understand, in no uncertain terms, that I'm doing all of this for your sake! By sacrificing my freedom and possibly my life, I hope to change your mind about me. This letter is being written only an hour before I leave for the Hilton Hotel. Jodie, I'm asking you to please look into your heart and at least give the chance, with this historical deed, to gain your love and respect.

Love you forever,

John W. Hinckley

Sent one hour before Hinckley's attempt to assassinate former president Ronald Reagan, justifying his actions to Foster

Appendix F : Letters to Whitney Houston from her stalker (3 shown out of 128)



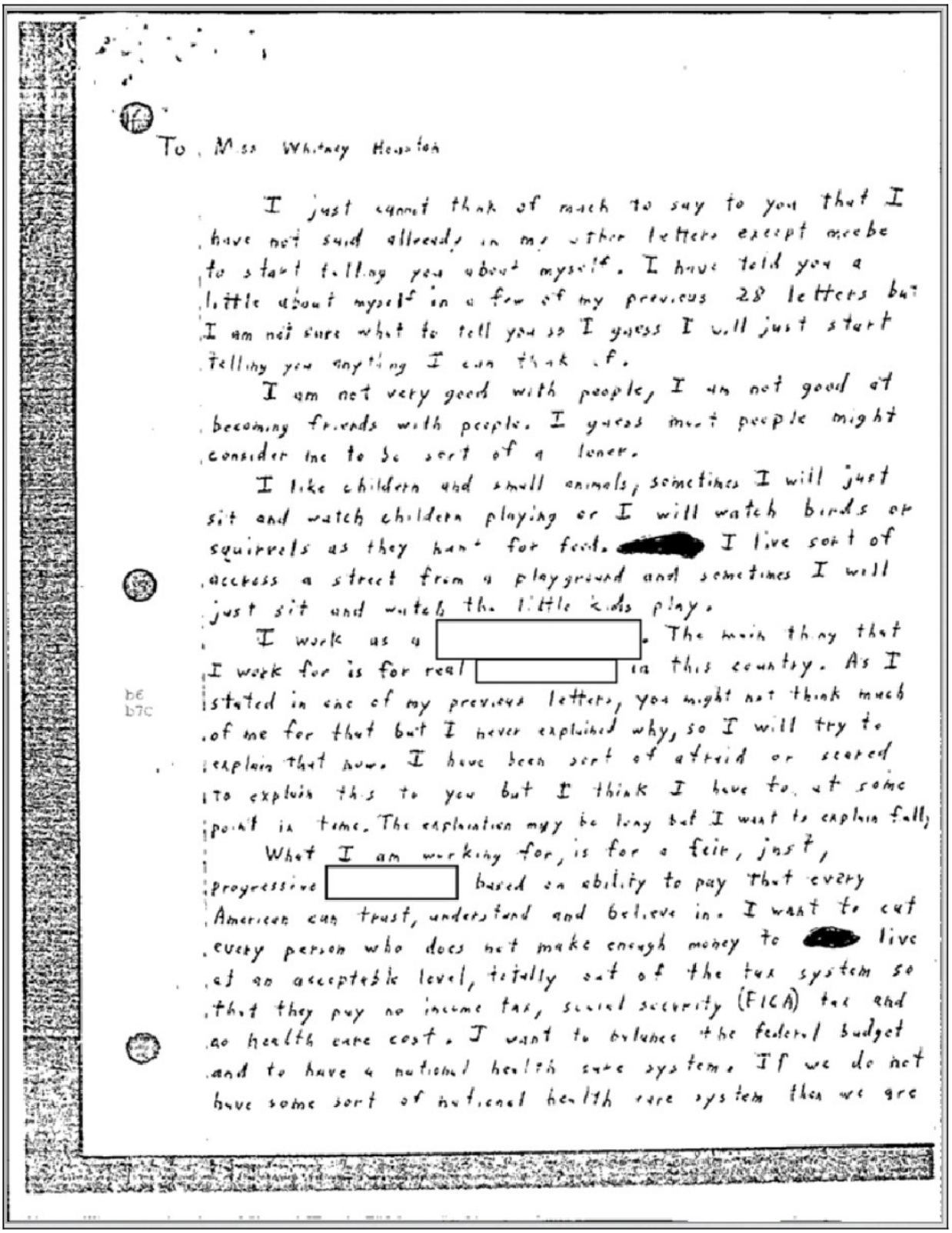
To Miss Whitney Houston

Miss Whitney, you are a beautiful lady and a beautiful person. I really and truly am in love with you. Please believe in life and in love and trust in yourself, and in your friends and trust in god.

Miss Whitney, [redacted] you are a special person with a wonderful gift. Please keep singing and helping people to be happy, but most of all,

Miss Whitney, Please Keep Smiling.

b6
b7C



To Miss Whitney Houston

I just cannot think of much to say to you that I have not said allready in my other letters except maybe to start telling you about myself. I have told you a little about myself in a few of my previous 28 letters but I am not sure what to tell you so I guess I will just start telling you anything I can think of.

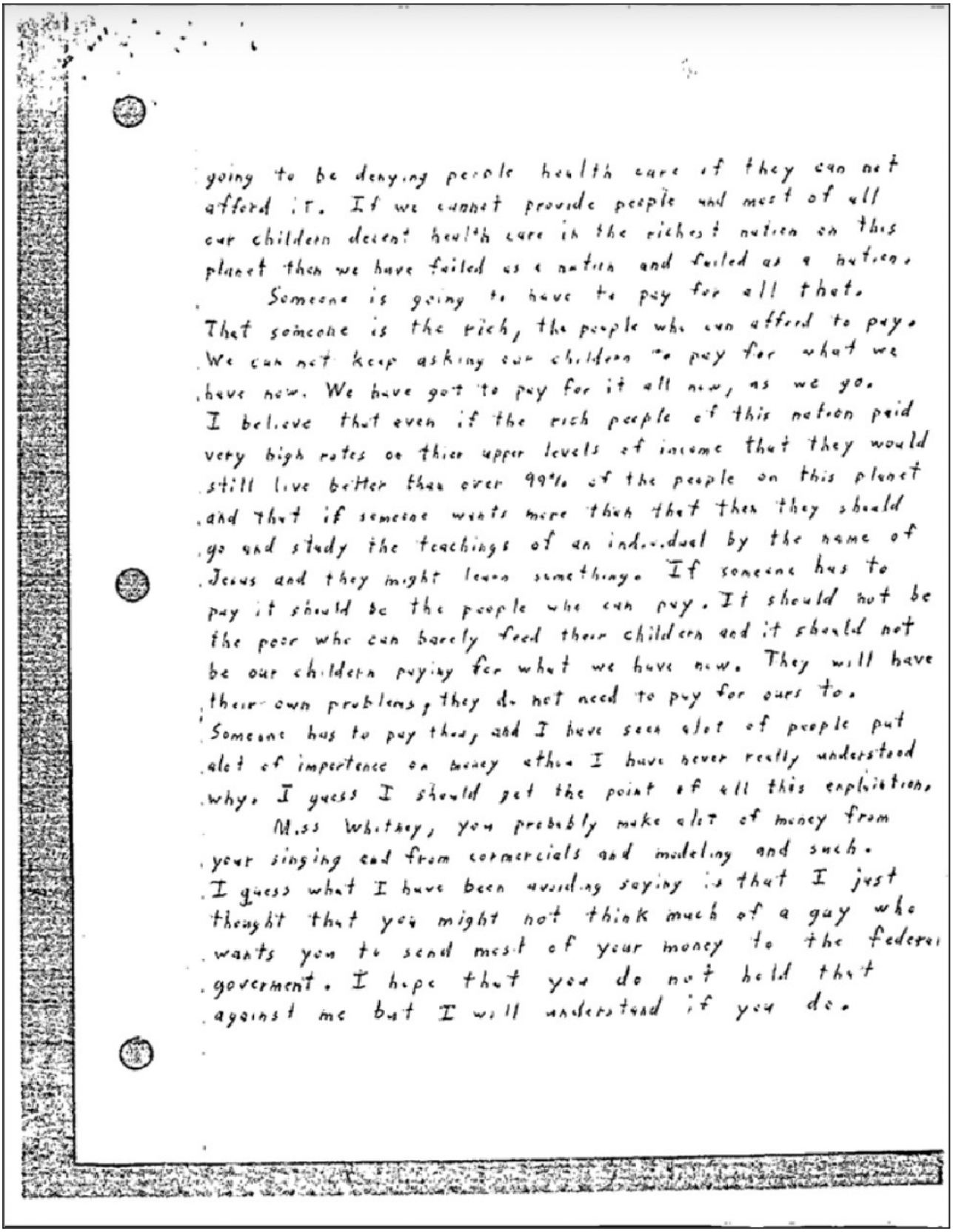
I am not very good with people, I am not good at becoming friends with people. I guess most people might consider me to be sort of a loner.

I like children and small animals, sometimes I will just sit and watch children playing or I will watch birds or squirrels as they hunt for food. [redacted] I live sort of accross a street from a playground and sometimes I will just sit and watch the little kids play.

I work as a [redacted]. The main thing that I work for is for real [redacted] in this country. As I stated in one of my previous letters, you might not think much of me for that but I never explained why, so I will try to explain that now. I have been sort of afraid or scared to explain this to you but I think I have to, at some point in time. The explanation may be long but I want to explain fully.

b6
b7C

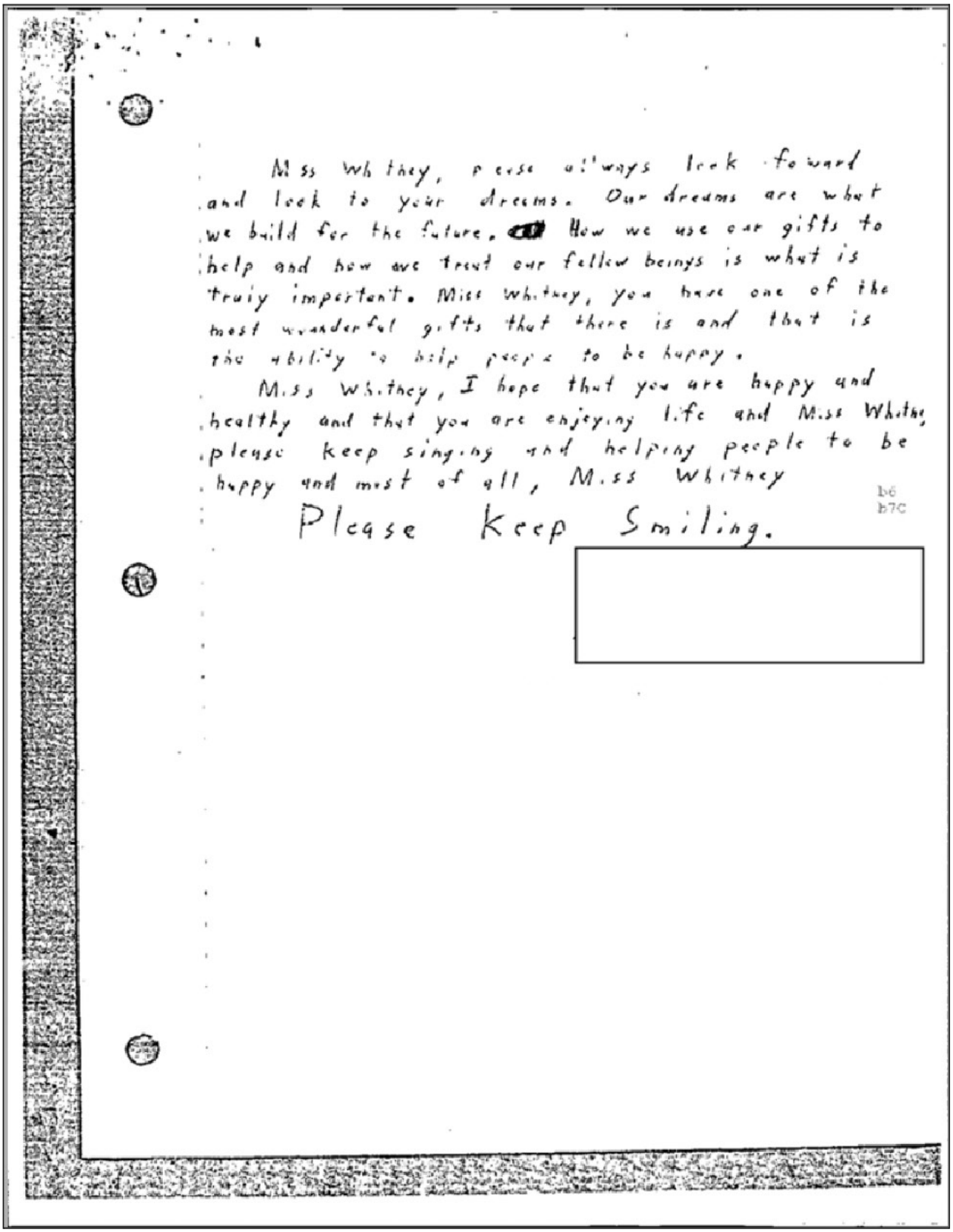
What I am working for, is for a fair, just, progressive [redacted] based on ability to pay that every American can trust, understand and believe in. I want to cut every person who does not make enough money to [redacted] live at an acceptable level, totally out of the tax system so that they pay no income tax, social security (FICA) tax and no health care cost. I want to balance the federal budget and to have a national health care system. If we do not have some sort of national health care system then we are



going to be denying people health care if they can not afford it. If we cannot provide people and most of all our children decent health care in the richest nation on this planet then we have failed as a nation and failed as a human.

Someone is going to have to pay for all that. That someone is the rich, the people who can afford to pay. We can not keep asking our children to pay for what we have now. We have got to pay for it all now, as we go. I believe that even if the rich people of this nation paid very high rates on their upper levels of income that they would still live better than over 99% of the people on this planet and that if someone wants more than that then they should go and study the teachings of an individual by the name of Jesus and they might learn something. If someone has to pay it should be the people who can pay. It should not be the poor who can barely feed their children and it should not be our children paying for what we have now. They will have their own problems, they do not need to pay for ours too. Someone has to pay then, and I have seen alot of people put alot of importance on money ethan I have never really understood why. I guess I should get the point of all this exploitation.

Miss Whitney, you probably make alot of money from your singing and from commercials and modeling and such. I guess what I have been avoiding saying is that I just thought that you might not think much of a guy who wants you to send most of your money to the federal goverment. I hope that you do not hold that against me but I will understand if you do.

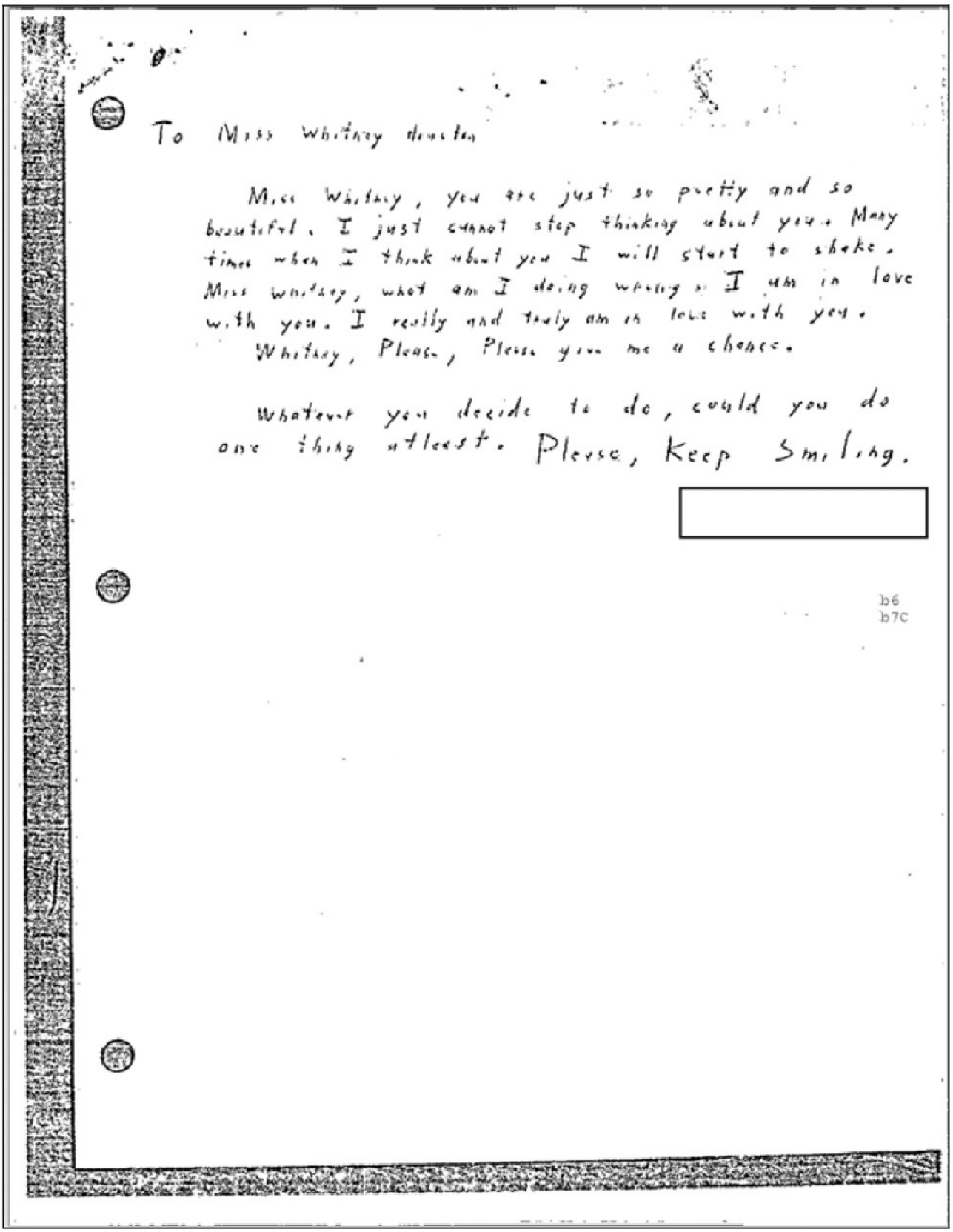


Miss Whitney, please always look foward and look to your dreams. Our dreams are what we build for the future. How we use our gifts to help and how we treat our fellow beings is what is truly important. Miss Whitney, you have one of the most wonderful gifts that there is and that is the ability to help people to be happy.

Miss Whitney, I hope that you are happy and healthy and that you are enjoying life and Miss Whitney please keep singing and helping people to be happy and most of all, Miss Whitney

b6
b7C

Please Keep Smiling.



To Miss Whitney Houston

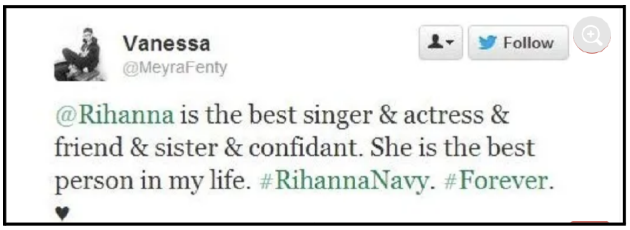
Miss Whitney, you are just so pretty and so beautiful. I just cannot stop thinking about you. Many times when I think about you I will start to shake. Miss whitney, what am I doing wrong? I am in love with you. I really and truly am in love with you. Whitney, Please, Please give me a chance.

Whatever you decide to do, could you do one thing atleast. Please, Keep Smiling.

[redacted]

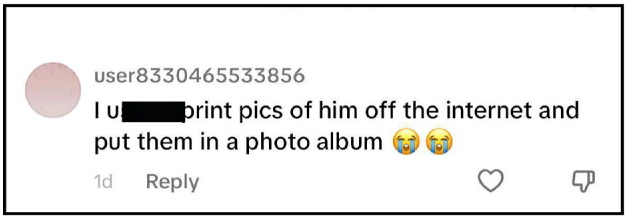
b6
b7C

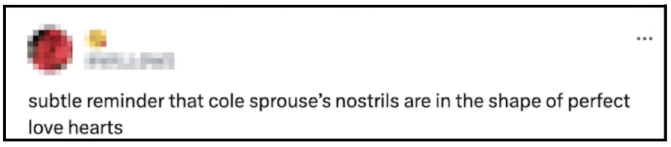
Appendix G: Comments screenshotted from Tiktok and Twitter about celebrities



G1 - Tweet from fan tagging Rihanna and expressing her love for the singer

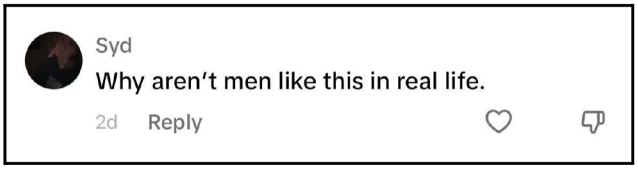
G2 - Tweet from fan in anticipation of singer Beyonce's new album





G7 - Tweet from fan about actor Cole Sprouse

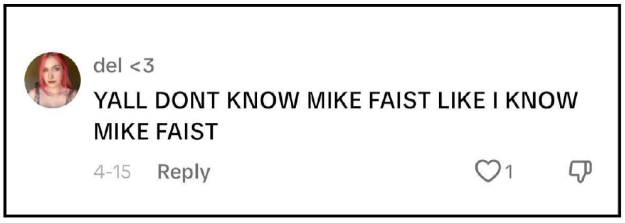
G8 - Comment from fan Tiktok about actor Sam Claflin



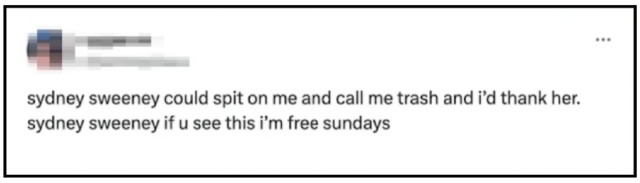
G9 - Comment from fan on Tiktok about singer Shawn Mendes

G3 - Comment from fan on Tiktok about actor Hayden Christensen

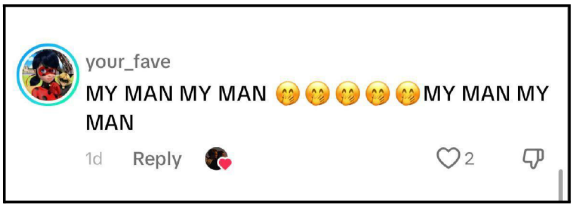
G4 - Comment from fan on Tiktok about singer Harry Styles



G5 - Comment from fan on Tiktok about actor Mike Faist



G6 - Tweet from fan for actress Sydney Sweeney



G10 - Comment from Tiktok about actor Tom Holland