

The Relationship between Parasocial Interaction and Social Behavior Among Adolescents

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ABSTRACT: Parasocial relationships are defined by one's relationship with an individual that one doesn't personally know, where one person invests their emotional energy and time while the other party is entirely unaware of the other's existence. This study aims to be the first to study the relationship between parasocial involvement and human behavior quantitatively. To examine the influence of parasocial relationships on the social development of adolescents, a correlational approach that attempts to understand participants' relationships (both parasocial and reciprocal) was employed in conjunction with survey research. Three categories were created to encompass the correlational survey design: Parasocial Interactions- Involvement, Parasocial Interactions- Emotional Intensity, and Reciprocal Interactions- Communication. The correlation found that an individual's apprehension regarding communication does link with their parasocial connection; as apprehension increases, parasocial connection increases.

KEYWORDS: Relationships; Communication; Media; Socialization; Parasocial; Adolescence.

■ Introduction

One of the striking elements of the new mass media—YouTube, television, and social media—is that they give the illusion of face-to-face relationships with the subject shown through a screen. This illusion, known as a parasocial relationship (PSR), has increasingly become a prominent aspect of society, correlating with increased media relevancy over the years. Defined by one's relationship with an individual they don't personally know, these relationships are one-sided, where one person invests their emotional energy and time while the other party is entirely unaware of the other's existence.¹ This study aims to be the first to study the relationship between parasocial involvement and human behavior quantitatively.

This investigation is designed to analyze the extent to which an individual's parasocial involvement (PSI) correlates with their symptoms of social anxiety and how this correlation contributes to their reciprocal relationships. High School Students will be asked to utilize a Likert scale to best identify and quantify the link and to juxtapose the areas of inquiry; the survey will be divided into three measures—Parasocial Interactions: Involvement, Parasocial Interactions: Emotional Intensity, and Reciprocal Interactions: Communication. Based on the fact that the nature of relationships can vastly differ, the structure of the survey will allow for each individual's relationship to be defined, further exploring if the effects of parasocial involvement vary by intensity. Due to the negative connotation surrounding the investment of time in the lives of influencers and media personalities, it is predicted that adolescents will increasingly experience social anxiety through parasocial involvement. The information presented in this study is especially valuable to both authoritative figures of adolescents and adolescents themselves, who can use this data to conclude whether their access to media is detrimentally stunting their interpersonal development.

■ Literature Review

To understand why this study analyzes parasocial interactions and their effects on the social development of adolescents, it is crucial to understand the existing body of research on the subject. Currently, few studies are looking into the correlation between the intensity of parasocial relationships and the behavior of high school students in reciprocal interactions; however, some studies suggest an association between the formation of these relationships and the resemblance between the two parties involved.

The concept of similarity, which prompts individuals to interact with those who encompass familiar attitudes and values, or even familiar physical appearance, is a predictive variable for parasocial interaction. In other words, when audience members perceive the media character as similar to their physical appearance or attitude, they establish a higher intensity of parasocial interaction. In a recent study conducted by Batgün and Sunal, Turkish professors at Ankara University, the relationship between viewers and the nationality of a show's subject was established; the statistical analysis revealed that women developed bonds with the characters in the domestic series more frequently when compared to the characters in the international series.² This study suggests that the concept of similarity is evident in parasocial interaction to a more significant extent than predicted in other studies, such as that conducted by Drogos and Tolbert, professors at the University of Michigan. Their analysis suggests that in teenagers, the intensity of the relationship is not dictated by similar attributes in both parties but rather by the concept of wishful identification. This concept that the psychological desire to be like a media personality encourages parasocial interaction was relevant through a 5-item scale survey. In short, the study revealed that an overwhelming majority of participants not only wanted to be more similar to their favorite media personality but also reported experiencing feelings of friendship.³ Like Batgün and Sunal, Drogos and

Tolbert found some correlation between parasocial relationships and the traits of both parties. However, these studies are limited as they do not examine the effects of the relationships on the individuals forming them or the effects on civilization in general. However, the research does have particular relevance to the causation of parasocial relationships, which may be beneficial when considering the relationship between parasocial activity and social behavior in this study.

Unlike these studies, research examining the ramifications of parasocial relationships—though not on the well-being of individuals themselves—does exist. Dr. Priska Breves and her team of college professors conducted an experimental study evaluating the impact of parasocial relationships on the effectiveness of advertisements presented by social media influencers. As concluded by the study, the illusion created between individuals and their favorite influencers enhanced the persuasive impacts of the advertisements.⁴ This study suggests that the feelings of friendship caused by parasocial interaction increase trustworthiness from the viewer. Essentially, the study exposes the utilization of parasocial interaction among business corporations as a way to connect with consumers on an emotional level.

Similarly, Philip S. Poe, Doctor of Philosophy, and his research unit sought to reveal the link between parasocial relationships and the likelihood of viewers listening to their local weathercaster's advice in severe conditions. Through distributing a survey to individuals affected by Hurricane Irma, researchers gathered data regarding the individual's relationship with their local weathercaster and the protective actions they took in preparation for the category five hurricane.⁵ Ultimately, the study suggests that the high levels of trust gained from the parasocial relationship prompted individuals to conduct specific behavior, similar to Breves' study regarding the advertisement's effectiveness on consumers. In essence, these studies conclude that there is a distinct connection between an individual's susceptibility to any form of advice and the intensity of their parasocial relationship. The studies, however, fail to address the mental effects on the individuals consciously forming the relationship, like how the schemes affect their trust in reciprocal interactions. Further, the studies fall short of considering the variable of age, as a sample of merely middle-aged individuals may have a different level of susceptibility to the manipulative appeal of certain media figures than teenagers.

Therefore, while some studies contend that the concept of similarity is the primary cause of parasocial relationships, and others argue that their most prevalent effect is manipulation, few studies test their effect on social behavior and interpersonal development in adolescence. Most studies focused on an older age group, like adults from 29 to 49 years old, or merely measured the presence of parasocial relationships among individuals without considering causation. This study will therefore address a gap in mainstream knowledge by analyzing the intensity of parasocial relationships among high school students and defining their interpersonal capabilities. In other words, it aims to understand the effect of parasocial relationships on interpersonal abilities. In contrast, further studies are

not engaged in uncovering a link between parasocial relationships and any aspects of human behavior.

■ Methodology

To examine the influence of parasocial relationships on the social development of adolescents, a correlational approach that attempts to understand participants' relationships (both parasocial and reciprocal) was employed in conjunction with survey research. Correlational research analyzes the relationship between two or more variables, which in this case is one's interpersonal capabilities and parasocial involvement. The relevancy and intensity of these factors were measured using the Likert scale, where survey respondents choose one option that best aligns with their view in response to a presented claim. In this respect, Likert scales are commonly used to measure attitude, providing a range of responses to a given statement.⁶ The greater subtlety of response built into a rating scale renders this a beautiful instrument for this study, as it diminishes the limitation of merely "yes" or "no" responses. Quantitative Research using a correlational survey design works cohesively with this research inquiry because it allows for an individual's communication abilities and parasocial involvement to be analyzed and compared on a single uniform scale.⁷

In a study conducted by Professor Thernan *et al.* at Wellesley College, categories to differentiate variables within the survey and provide context for numerical values were used in alliance with correlational research. The method proved effective in analyzing the link between parasocial involvement and emotional intensity in adolescent girls, so the categories were modeled similarly in the current study.⁸ Three categories were created to encompass the correlational survey design: Parasocial Interactions- Involvement, which measures the extent to which an individual engages with the chosen media personality; parasocial Interactions- Emotional Intensity, which measures the emotion in the relationship; and Reciprocal Interactions- Communication, which measures the quality of one's in-person communication habits. By differentiating these categories in the bones of the survey, participants will keep in mind what is being asked of them in each section and will thus clearly communicate their responses. While the first two categories involving parasocial interactions were extracted from Thernan's method, adding one catered explicitly to the research goal titled "Reciprocal Interactions- Communication" was utilized to identify the correlation, if any, in the study.

Further, this category allows for juxtaposing parasocial and reciprocal interactions to characterize each type of relationship definitively, minimizing room for misinterpretation among respondents. The Likert scale for each statement in their designated category was on a 1-5 scale, with 1 being "Strongly Disagree" and 5 being "Strongly Agree." Some statements were adopted from the Thernan *et al.* questionnaire, while others were crafted to fit the specifics of this study. To permit access to a greater range of participants, the survey was designed to be accessible online. The use of a virtual survey best targeted high schoolers aged 15 to 17 years old, as having the survey readily available was most practical for busy students.

Further, the Likert scale allowed individuals to respond while indicating the extent to which a statement applied to

them, eliminating the limitation of merely “yes” or “no” responses. This scale also provided quantitative data, which was best as it eliminated any bias when analyzing data, and it was most practical in utilizing Pearson’s Correlation Coefficient. In other words, a quantitative approach involves minimal interpretation for both the researcher and participants and is feasible to apply in terms of correlation.

Once the data was collected, a Chi-Square Goodness of Fit test was performed to determine the significance of the results, ultimately ensuring that the results were definitive. Especially with the survey design’s reliance on numerical values was essential to understanding which results were representative of the total sample of respondents. Finally, any findings deemed significant by the Chi-Square Test were utilized in Pearson’s Correlation Coefficient, which was included in determining the correlation between parasocial relationship intensity and one’s social behavior. As previously mentioned, this correlational approach works cohesively with this research inquiry because it allows for an individual’s communication abilities and parasocial involvement to be analyzed and compared on a single uniform scale.

■ Results

As detailed in the methodology section, some statements were adopted from the Thernan *et al.* questionnaire for use in this study. It is important to note that while the survey assumed three categories to elucidate the intent of including each statement for respondents, these categories are also used to analyze an individual’s communication abilities and parasocial involvement through correlation.

As shown in Figure 1, when faced with the statement “most of the time the media accurately portrays media figure’s personalities,” the total number of respondents that agreed with the statement (10) was notably less than the total number of respondents that disagreed with the statement (35). A Chi-Square Goodness of Fit Test was performed to assess the significance of these results, concluding that these results were indeed significant ($N=50$), $p=.000$. Therefore, this figure presents an overall finding that individuals’ responses to the question were not by chance; consequently, this indicates that respondents feel as if they have a meaningful connection to their media figure and that they ultimately know their personality to a greater extent than what is exposed to the public. In other words, their parasocial relationship has adopted an aspect similar to wishful identification, as described by Drogos and Tolbert in their study investigating how these relationships form. However, while Drogos and Tolbert focus on the variable of wishful identification referring to oneself, these findings suggest that it can also be applied to assumptions about their media figure’s personality rather than their own.

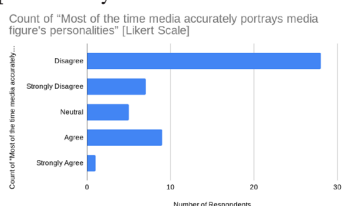


Figure 1: Count of “Most of the Time Media Accurately Portrays Media Figure’s.

Personalities” [Likert Scale]:

As shown in Figure 2, when evaluating the statement, “I feel sorry for my favorite media person when they make a mistake,” the total number of respondents that agreed with the statement (31) was vastly greater than the total number of respondents that disagreed with the statement (10). A Chi-Square Goodness of Fit Test was performed to assess the significance of these results, finding that a significant relationship exists ($N=50$), $p=.001$. Thus, as this question was in the involvement section of the survey, it reveals the extent to which the sample of respondents idolize their media figures and excuse them for their mistakes.

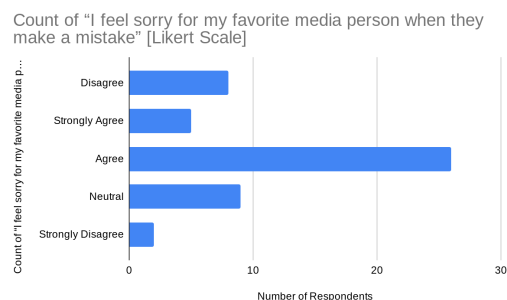


Figure 2: Count of “I feel sorry for my favorite media person when they make a mistake” [Likert Scale]

This finding proves significant in a larger realm when compared to the findings suggested in Figure 3. When asked about the strength of their feelings towards their media figure, the total number of individuals that agreed (31) was significantly larger than the number of respondents that disagreed (3). A Chi-Square Goodness of Fit Test found these results to be significant ($N=50$), $p=.000$. As this question was in the emotional intensity section of the survey, it indicates that most respondents reported powerful feelings towards the individual in question. Compared with the findings of Figure 2, which suggests that the majority of the sample tends to idolize their media figure, one can conclude that nearly all respondents’ emotional intensity and involvement regarding their celebrity is strong.

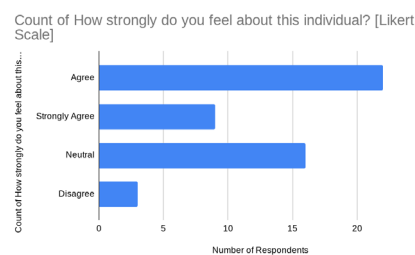


Figure 3: Count of “How strongly do you feel about this individual?” [Likert Scale]

As shown in Figure 4, when evaluating how strongly individuals felt about their media figure, the total number of respondents that agreed with the statement (27), indicating strong levels of connection, was notably larger than the total number of respondents that disagreed with the statement (13), indicating a weak connection. A Chi-Square Test found these results to be significant ($N=50$), $p=.026$. As this question was in the emotional intensity section of the survey, it reveals that the

majority of the survey participants have strong feelings towards their media figure.

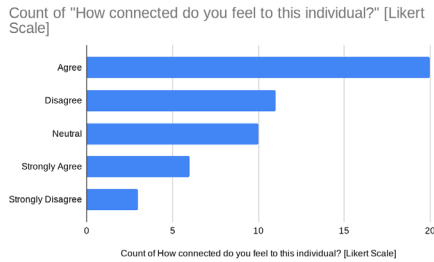


Figure 4: Count of “How connected do you feel to this individual?”

In Figure 5, the results of “I have apprehension about communication in general” and “how connected do you feel to this individual?” were set side by side to determine if a correlation was evident. When participants responded to the statement regarding their apprehension about communication in the reciprocal interactions section of the survey, the total number of respondents that agreed (19) was greater than the total number of respondents that disagreed (17). Comparably, when participants responded to the statement regarding their connection to the media figure, the total number of respondents that agreed (27) was significantly greater than the total number of respondents that disagreed (13), indicating a strong connection similar to that described in Figures 1-3. These results used Pearson’s Correlation Coefficient to calculate whether a link exists between the two variables. The method found that a small positive correlation exists between having apprehension about communication and one’s connection to their media figure, $r = .25$. In other words, the more connected an individual feels to their media figure, the more apprehension they have about communication in reciprocal interactions. The opposite applies; the more apprehension an individual has about communication, the more connected they may feel to their media figure. This finding suggests that the intensity of the parasocial relationship may affect an individual’s likelihood to communicate in general.

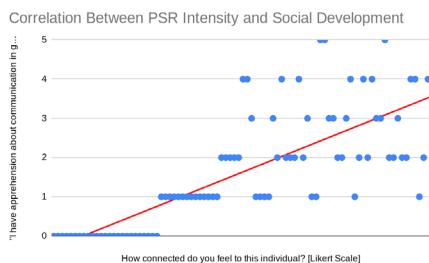


Figure 5: Correlation Between PSR Intensity and Social Development

To further develop this finding, Figure 6 analyzes the results of “I choose to communicate in person rather than using technology” and “how connected do you feel to this individual?” When participants responded to the statement regarding their preference for communication, the total number of individuals agreeing with the statement (28) was larger than the total number of individuals who disagreed with it (13). However, when Pearson’s Correlation Coefficient was utilized to calculate whether a link exists between the two variables, there was a small negative correlation between one’s communication pref-

erence and their connection to the media figure, $r = -0.26$. This correlation found that the more connected an individual feels towards their media figure, the less they choose to communicate in person rather than through technology. This finding is significant in that it suggests that the intensity of an individual’s parasocial relationship can affect their communication skills (and the communication skills can affect the intensity of their relationship), which essentially answers the question. This stifling of communication abilities, particularly among high school students, may damage their social development.

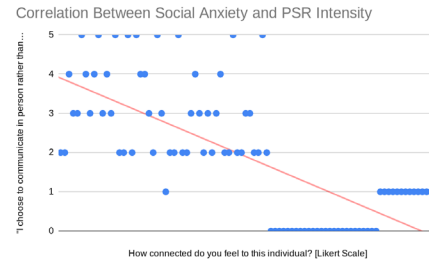


Figure 6: Correlation Between Social Anxiety and PSR Intensity

■ Discussion

In some respects, the connection between embracing strong parasocial relationships and an adolescent’s interpersonal abilities is evident, as initially predicted in this study. An excellent example is the correlation between social apprehension and one’s connection with their media figure. When participants responded to the statement regarding their apprehension about communication in the reciprocal interactions section of the survey, the total number of respondents that agreed was significantly greater than the total number of respondents that disagreed. Similarly, when participants responded to the statement regarding their connection to the media figure, the total number of respondents who agreed was significantly greater than the total number of respondents that disagreed, indicating a strong connection. Ultimately, a small positive correlation exists between having apprehension about communication and one’s connection to their media figure. In other words, the closer one feels to a media personality, the more apprehensive they are about communicating in reciprocal encounters. Unlike the findings of Drogos and Tolbert, which suggest that parasocial activity can help individuals strive for self-improvement (due to the application of wishful identification), this finding indicates that the intensity of a parasocial relationship can hurt an adolescent’s likelihood to communicate in general. Before conducting research, it was initially predicted that parasocial activity would exacerbate symptoms of social anxiety. The study’s original hypothesis is supported by this new finding, as it proves that levels of parasocial involvement correlate with levels of communication apprehension among the teenagers sampled.

An individual’s preferred form of communication has also demonstrated a correlation with the level of connection felt with the media figure. When participants responded to the statement regarding their preference for communication, the total number of individuals agreeing with the statement was larger than the total number of individuals who disagreed with the statement. Pearson’s Correlation Coefficient found a small

negative correlation between one's communication preference and their connection to the media figure. This correlation found that the more connected an individual feels towards their media figure, the less they choose to communicate in person rather than through technology. This finding is significant in that it suggests that the intensity of an individual's parasocial relationship can affect their communication skills (and communication skills can affect the intensity of their relationship), which essentially answers the question at hand. Especially in high schoolers this stunt in their communication skills may be detrimental to their social development, especially in high schoolers. Similar to the previous finding, the results were consistent with this study's original prediction. Given that aversion to face-to-face communication is a hallmark of social anxiety, one can conclude that this link may support the hypothesis that parasocial relationships can affect social behavior among adolescents.

There are, nevertheless, certain inherent limitations that must be addressed. It is essential to consider that constraints arose from the Chi-Square method, as it does not show why respondents felt a certain way. As a result, Pearson's Correlation Coefficient was used to determine the causation of these results. However, while a link has been proven based on the coefficient, the sample of students (with a total of 50) cannot represent the adolescent population as a whole. Further, the number of respondents could have been higher than 50, as this would amplify the validity of the results by reaching a greater variety of demographics. All students who were permitted to respond to the survey were between the ages of 15 and 17 years old, but because this cannot be regulated, individuals both younger and older than the indicated ages may have responded to the survey, tampering with the context of the results; adults may spend fewer amounts of time on social media due to a variety of factors like work, maturity, and greater responsibilities, which affects their parasocial relationship and involvement. The selection of statements used in the survey distributed was based on relevancy in different aspects like PSR, PSI, and interpersonal communication, but this brought to light the limitation in which statements were utilized and how the respondents interpreted them.

■ Conclusion

One new understanding is that an individual's apprehension about communication does link with their parasocial connection. The correlation found a linear relationship: as the parasocial connection gets more robust, so does apprehension about communication. Because of the decision to utilize Pearson's correlation coefficient, the study also found an inverse relationship: as parasocial connection increases, in-person communication decreases. Similar to the findings of Breves, this indicates that parasocial activity can alter one's thought process. Just as Breves found that parasocial relationships can affect one's likelihood of buying a product, this study indicates that parasocial relationships can affect one's likelihood of engaging in reciprocal interactions.³ These findings also emphasize that had this study only scrutinized data via one method (e.g., the survey), prevalence among respondents and links between given variables would not have been definitive.

This was also reinforced by creating categories to differentiate data points. It prepares data from different survey sections to be correlated based on significance (as indicated by the Chi-Square Test). For example, roughly 70% of respondents agreed with the statement, "I choose to communicate in person rather than using technology." However, without comparing this question (which lies in the "Reciprocal Interactions- Communication" section of the survey) to one that lies in the Parasocial Interactions- Emotional Intensity," the research goal cannot be answered. This indicates that these findings consider the context of each participant in the study, justifying the connection between parasocial activity and social apprehension.

However, certain unavoidable limitations must be addressed; for instance, responses to the Likert-style survey are based on self-perception, and participants are held to the honor code to ensure that they are contributing accurately. This poses a threat to the integrity of the data and, ultimately, to any conclusions being drawn, as skewed data diminishes the authenticity of the findings. It is also essential to take into consideration confounding variables, such as COVID-19 and other factors that may influence high school students' opinions; this could range from personal stressors to those regarding school coursework. Additionally, the study requires generalizations, as conclusions are not being drawn for all 50 participants individually. When considering the limitations of the correlation, it is evident that correlation does not equal causation, so it cannot be sure whether it was genuinely parasocial relationships that caused social anxiety or social anxiety that caused parasocial relationships.

To further advance the body of research concerning the effect of parasocial relationships on adolescents, this study should be repeated with a greater number of statements. By adding more areas of inquiry to the survey, the specificity of the results will be enhanced, prompting more precise and detailed conclusions. Future research should also determine the consistency of the correlations with larger sample sizes and a wider variety of demographics, as only Livingston High school students were included in the sample, which may have contributed to data points. Additionally, as Pearson's correlation coefficient does not entail causation, the next step after correlation in future research would be to run an experiment to uncover why the correlation happened. One of this study's findings that more parasocial connection correlates with less in-person communication sets the stage for research into confounding variables such as COVID-19. In April 2020, Zoom, a communication platform, had 300 million daily meeting participants worldwide.⁹ This new phenomenon suggests that more individuals have been communicating virtually during the pandemic, which begs whether this increase in virtual communication caused a simultaneous increase in parasocial relationships. Future research can focus more specifically on the effects of COVID-19 (such as remote learning) and its impact on the likelihood of parasocial relationships.

Currently, this study's findings that parasocial relationships can contribute to apprehension about communication can be beneficial to authoritative figures or adolescents themselves when considering the effects of spending too much time on a

screen. According to a recent study conducted by Jama Pediatrics, teens spend, on average, almost eight hours in front of a screen every day, so the findings presented in this study can show the extent to which this statistic is alarming regarding parasocial interaction. In other words, the more time individuals spend on media sites, the more parasocial interaction they engage in. Social apprehension and anxiety can cause loneliness, low self-esteem, and depression, so these findings can be used to help decrease parasocial interaction, essentially reducing these harmful effects. Authoritative figures can also urge adolescents, or adolescents themselves can decide to engage in in-person communication or minimize screen time on media sites like YouTube or Instagram to mitigate these effects.

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