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Empathy, perceived similarity, and online aggression

Olivette Petersen
University of Tennessee at Chattanooga, tbl482@mocs.utc.edu

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Olivette Petersen

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Department of Psychology

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Dr. Alexandra Zelin
Assistant Professor of Psychology
Thesis Director

Dr. Kristen Black
Assistant Professor of Psychology
Department Examiner

Abstract

As social media usage continues to rise, the prevalence of non-traditionally famous online entertainers and other popular online personas (e.g., YouTubers and social media influencers) is increasing. Online practices such as video blogging and social media upkeep make it easier for viewers and fans to feel closer to the online personas they follow, regardless of whether any in-person social interaction ever takes place. Due to the increased amount of time adolescents and young adults spend on social media, it is clear that these online personas are becoming an important part of adolescents' and young adults' socialization. Furthermore, when online entertainers become the subject of controversy in the media, their fans and followers are quick to become involved. The present study examined if empathy and perceived similarity relate to empathic behaviors online. The study featured three real online influencers, one of whom was white, one Asian, and one Black. In a sample of 115 participants, I found that empathy significantly, negatively correlated with aggression for the two non-white influencers featured in our study. For the one white influencer, the more similar viewers felt toward her, the less aggression they felt toward her behaviors. Controlling for ethnicity of participants, participants indicated significantly higher levels of perceived similarity toward the white influencer, followed by the Asian influencer, and the Black influencer.

Introduction

As social media usage continues to rise, the prevalence of online entertainers and other popular online personas is expanding. Online practices such as video blogging and social media upkeep make it easier for viewers and fans to feel closer to the online personas that they follow, regardless of whether any in-person social interaction has ever taken place. Research is lacking in uncovering if and how adolescents empathically connect and react to these types of public figures who are becoming an important part of their socialization. Current research on empathy illuminates how social factors greatly influence how empathy is expressed, including factors such as attractiveness, knowledge of social background, and perceived in-group or out-group status.

Much of the current research into how empathy factors into online interactions has responded to popular conceptions that social media is harmful for adolescents. For instance, researchers have frequently sought to establish whether there is a relationship between social media use and empathy levels or empathy levels and cyberbullying behavior (Carrier, Spradlin, Brunce, John & Rosen, 2015; Ouvrein, De Backer, & Vandebosch, 2018). However, while the amount of time adolescents spend on social media has increased, researchers have not considered the online community to be a part of adolescents' perceived social in-groups. Little research has examined how individuals react emotionally with online personas to whom they feel connected, and how empathy factors into these kinds of online interactions.

Furthermore, while much research into empathy and online interactions has focused specifically on adolescents, there is a lack of research extending to young adults. There is increasing attention and research in the past decade directed towards the concept of emerging adulthood, a prolonged transition into adulthood that typically extends into an individuals'

twenties (Arnett, 2000). Even after the age of adolescence, personal and identity development is still rapidly taking place throughout a prolonged period of time (Arnett, 2000). Young people who would fall into this category of emerging adulthood represent a large part of the demographic that is actively engaging in online interactions and following online entertainers. The present paper investigates whether one's own levels of empathy and perceived similarity to an outside figure can predict an emerging adult's likelihood to exhibit empathic behaviors toward an individual with whom they interact on an online platform.

Empathy

Empathy, defined as the ability to understand and emotionally respond to the feelings and behaviors of others, is a trait that is commonly held in high regard and perceived as a positive asset (Baron-Cohen & Wheelwright, 2004). Empathy is often divided into two subcategories: affective empathy and cognitive empathy. *Affective empathy* is defined as an individual's ability to experience an emotional response in reaction to another individual's observed feelings, while *cognitive empathy* is associated with an individual's ability to comprehend and understand an individual's feelings without necessarily experiencing an emotional reaction (Ouvrein, De Backer, & Vandebosch, 2018). While empathy may be perceived as a positive trait, it is often still subject to certain human biases that society would deem negative. Higher amounts of measured empathy do not always directly lead to higher empathic behavior in practice (Cikara, Bruneau, & Saxe, 2017; Muller, Van Leeuwen, Van Vaaren, Bekkering, & Djiksterhuis, 2013). However, researchers have demonstrated that perceptions of an individual and one's own social network predict one's level of empathy toward someone (Bos, Jap-tjong, Spencer, & Hoffman, 2016; Guéguen &Martin, 2009; Muller, Van Leeuwen, Van Vaaren, Bekkering, & Djiksterhuis,

2013; McKeever, 2015; Reiffe & Camodeca, 2016; Xu et al., 2009; Cikara, Bruneau, & Saxe, 2017; Wölfer, Cortina, & Baumert, 2012).

Perceptions of individual. Perceptions of an individual's background, personality, and similarity to oneself affect behavioral displays of empathy (Bos et al., 2016). Facial and behavioral mimicry have frequently been used to measure empathy, as the tendency to display facial or behavioral mimicry is linked to higher empathy (Sonnby-Borgstrom 2002; Zajonc et al. 1987). Empathic mimicry is susceptible to being influenced by how the individual being mimicked is perceived. Bos and colleagues (2016) measured facial mimicry towards young children finding that when participants were given knowledge of the children's domestic lives and dispositions, their empathic reactions intensified in certain conditions as a result of personal bias. Notably, children described as experiencing negative domestic situations warranted stronger facial mimicry of sad facial expressions. These reactions occurred even when the situations created around each child were not true (Bos et al., 2016). Similarly, individuals are more likely to mimic individuals they perceive as having something in common with themselves. Guéguen and Martin (2009) found that individuals were more likely to mimic the action of touching or rubbing one's face when they were observing an individual with the same first name or the same college major.

Furthermore, attractive individuals are more likely to warrant empathic responses. Van Leeuwen and colleagues in a 2009 study found that imitative behaviors and mimicry are strongest among individuals rated as attractive. Muller, Van Leeuwen, Van Vaaren, Bekkering, and Djiksterhuis (2013) found that this more strongly applies to women specifically; imitative behaviors representing empathy were universally strongest toward women rated as attractive, and this was the case in individuals who had both high and low scores on a measure of empathy.

Perceived similarity to oneself also leads to an increase in expressed empathic concern (McKeever, 2015). Because people are more likely to have friend groups composed of those similar to themselves (Reiffe & Camodeca, 2016), they are much more likely to have stronger levels of empathy toward their similarly-perceived in-group than their differently-perceived out-group. This impact on empathy occurs even in situations in which individuals are exhibiting empathy towards fictional characters (McKeever, 2015); the more the individual perceives the fictional character to be more like them, the stronger their feelings of empathy toward that character. Empathic responses further increase towards individuals belonging to the same racial group. Empathic neural responses that occur when observing an individual in physical pain increased when the observer and observed belong to the same racial category; these neural responses decreased when both parties belong to different racial groups (Xu et al., 2009). Many of the perceptual factors that influence how empathy is experienced and displayed are relevant to online settings as well as tradition social settings. However, little research has explored these factors as they apply to online interactions.

Social network. Social factors play a large role in the expression of empathic behaviors (Cikara et al., 2017; Wölfer et al., 2012). Often, in-group and out-group status affects empathy (Cikara et al., 2017), where individuals are more likely to exhibit empathy towards individuals within their in-group or their personal social circle. However, individuals outside of this realm do not arouse the same emotional empathic responses (Cikara et al., 2017); individuals often fail to display empathy those deemed outside of one's chosen circle. Not only are empathic responses often weaker towards outsiders of one's social circle, but when two groups are pitted against each other, the loyalty or empathy felt towards one's own group can have adverse effects on outside groups. In competitive settings, empathy is especially low towards outgroup members,

specifically when one's own ingroup feels inferior (Cikara et al., 2017). In these situations, even empathic individuals may take pleasure in the failure or discomfort of outgroup members against whom they are competing.

In adolescents specifically, social background and past experience is another predictor of empathic behavior (Wölfer et al., 2012). Adolescents who feel a part of a close-knit social community exhibit stronger empathy towards these intimate peers, but social circles that are less exclusive encourage the extension of empathy outside of the social circle. Therefore, the socialization of adolescents influences how liberally and universally they may exhibit empathic behaviors (Wölfer et al., 2012). Empathy in turn affects how adolescents socialize, with higher-empathy individuals being more likely to align themselves in social roles that defend victims of bullying and harassment (Rieffe & Camodeca, 2016).

In previous research examining how social factors influence empathy, researchers do not closely examine the extent to which individuals may extend their social circles or ingroups to include people outside of their personal circle of close friends. Online celebrities and public figures with whom individuals feel strongly aligned with may also warrant the same empathic relationships associated with a traditional social ingroup, but this is an area in which research is scant.

Emerging Adulthood

Emerging adulthood, a concept first proposed by Arnett (2000), suggests that as industrialized societies have brought about many social and cultural changes, the transition from adolescence to adulthood is now punctuated by a new stage of development. Emerging adulthood, a stage generally considered to last from ages 18 to 25, is demographically, subjectively, and psychologically different from adolescence and adulthood (Tanner, 2011).

Because of shifting social expectations and an increase in the pursuit of higher education, people who fall into this age category are now getting married, having children, and finding enduring careers at much later ages on average than people were several decades ago (Arnett, 2000). Emerging adulthood is characterized by vast demographic differences, and this consistent heterogeneity marks the period as a time of transition, change, and uncertainty (Arnett, 2000). Emerging adults also consistently self-identify as feeling neither like an adolescent, nor like an adult, with Arnett (2000) reporting that a majority of people aged 18-25 when asked whether or not they feel like an adult answer with an ambiguous "yes and no." As such, this period marks a time of identity exploration for many emerging adults (Arnett, 2000).

In his introduction to the concept of emerging adulthood, Arnett (2000) highlighted many additional areas open to potential research in the field of emerging adulthood, one such area concerning whether or not emerging adults consume greater amounts of media due to an increased amount of time spent alone during this developmental period. Recent analysis may suggest that the answer to this question is yes, as 90% of emerging adults use social media every day (Perrin, 2015). Research also suggests that feelings of loneliness associated with emerging adulthood correlate with increased use of the social media site Facebook (Reissman, Hauser, Stollberg, Kaunzinger, & Lange, 2018).

Social Media

As emerging adults spend a large amount of time online and on social media sites, social media use is an important factor to consider when characterizing emerging adults in the present decade. Popular social media platforms such as Twitter, Instagram, Facebook, Snapchat, and YouTube, among others, provide a way for individuals to share and broadcast content of their creation to an audience of friends, peers, or fans. Social media is often used to make connections

between individuals with similar interests, keep in touch with friends and peers, or share updates and information about personal happenings or thoughts and reactions. Over the past decade, many individuals have gained large amounts of fame and notoriety from broadcasting content and entertainment through these social media platforms (Khamis, 2016). These online celebrities gain fame specifically via online platforms, differentiating them from traditional celebrities who gain fame from mass media such as popular films or music.

Celebrity social media. As social media has expanded and flourished over the last decade, online entertainers have become more prevalent. It is now more possible than ever to gain celebrity status online, with top channels garnering as many as 96,000,000 subscribers (as per user PewDiePie's Youtube channel in July, 2019). Many individuals over the past years have gained large amounts of recognition on their personal online social media platforms, creating a new kind of fame centering around and starting from these online spaces. A common form of online entertainment over the recent years is the practice of video blogging, or "vlogging," in which popular online personas give viewers insight into their daily lives. Trends such as "Draw my Life" videos, in which online content creators use whiteboard sketches to tell an overall story of their lives since birth, and personal "Question & Answer" (Q&A) videos make the lives of online celebrities much less private than the lives of traditional celebrities known for film or music performance.

A typical online celebrity, also commonly referred to as an online influencer, will use and gain followers over a wide spread of social media platforms including Instagram, Twitter, and Snapchat, making it easier than ever for fans and viewers to keep up with these celebrities in all aspects of their lives. Often, social media personas and online influencers even publicize aspects of their lives as personal and intimate as details of their romantic relationships, and post content

multiple times a day showcasing their whereabouts and affairs. It is evident through examining online responses to their posts that adolescent fans and viewers often feel strongly connected to these internet celebrities (e.g. a post on Twitter addressed to popular Youtuber Emma Chamberlain reads: “listening to [your podcast] or watching your vlogs truly feels like having a best friend around!” (@migrainedun, 27 May 2019). A few posts from a Twitter fan account dedicated to Emma Chamberlain read: “i [sic] wish i could put into words how much i love emma chamberlain” and “i [sic] genuinely dont know where i would be without u. i love u more than u know.” (@philzzzzzzzz, 30 May 2019)).

Online celebrity aggression. An increase in celebrity social media has also led to an increase in aggression directed towards these celebrity figures through online platforms, such as harsh critiques and aggressive comments posted on social media sites (Claessens & Van Den Bulck, 2014). Many young social media consumers even attribute these kinds of online aggression as an unavoidable part of gaining celebrity (Ouvrein, Vandebosch, & De Backer, 2017). However, several factors mediate this phenomenon. First, if a celebrity target of online aggression is well-liked by a social media consumer, they will be less likely to engage in online aggression towards the celebrity and will report negative attitudes about the aggressive behavior observed (Ouvrein, Pabian, Machimbarrena, De Backer, & Vandebosch, 2018). Additionally, when social media consumers perceive higher feelings of closeness and intimacy toward victims of online aggression, they are also more likely to report negative attitudes toward the practice (Ouvrein, Vandebosh, & De Backer 2017).

Empathy and Social Media

In recent years, researchers have begun to focus on the relationship between empathy and social media. While the popular conception is that social media usage negatively relates to

empathy (e.g., social media use is widely associated with an increase in cyberbullying), some researchers have found evidence for a different conclusion. Affective empathy, for instance, is negatively related to an adolescent's likelihood to participate in cyberbullying aimed at peers (Ouvrein, De Backer, & Vandebosch, 2018); the higher one's levels of affective empathy, the less likely they will engage in cyberbullying. Affective empathy also decreases an adolescent's likelihood to exhibit aggression online towards celebrities (Ouvrein et al., 2018). Furthermore, the display of virtual empathy, or empathy communicated through online interactions, positively correlates with real-world face-to-face empathy (Carrier et al., 2015). In a longitudinal study examining the relationship between empathy and social media use, Vossen & Valkenburg (2016) found that social media use over time is positively related to an increase in both cognitive and affective empathy. Social media use increased adolescents' ability to understand and share the feelings of their peers (Vossen & Valkenburg, 2016).

While the ability to empathize with others generally makes for better and more understanding social relations, the trait can be manipulated in negative ways. Specifically, in adolescents, empathy is heavily influenced by social factors (Cikara et al., 2017). With the increase of social media and online anonymity, adolescents are more prone to viewing, making, and receiving harsh criticisms of peers and public figures online. A quick glance into the comments section of popular online videos or prominent posts from fan accounts online will reveal that adolescents and emerging adults today often extend their personal ideas of their own in-groups to include admired public figures and their fan bases. Unfortunately, that empathy fails to extend to out-group members in these situations. The prominence of such seemingly empathic behaviors might actually be explained by empathic distress. Adolescents and young adults empathize strongly with these popular online personas, even in the absence of direct social

interaction. This empathy may exist even to the point of empathic distress in some cases when dramatic occurrences take place in the lives of admired public figures.

The present study specifically examines if empathy and perceived similarity relate to a higher likelihood to exhibit a positive, forgiving attitude towards a celebrity online figure receiving harsh criticism from outside sources.

Hypothesis 1. Individuals who have higher levels of general empathy will be more likely to a) exhibit empathic behavior towards a celebrity figure and b) disagree with negative statements being made towards them through an online platform.

Hypothesis 2. The higher one's felt similarity toward a celebrity is, they will also be more likely to disagree with negative statements about that celebrity figure.

Hypothesis 3. Higher general empathy and felt similarity towards a celebrity figure together will interact to lead to empathic behavior exhibited toward that celebrity.

Research Question 1. I also want to investigate if there are significant differences in level of perceived similarity and aggression among the three influencers included in the study, who all differ in ethnicity.

Method

Participants

A total of 115 participants were recruited through the online recruitment system SONA. All participants were undergraduate students at the University of Tennessee at Chattanooga. Two participants did not provide demographic data, but of the 113 that did, the average age was 20.82 years (*SD* = 3.00). Most participants identified as female (99), 13 as male, and 1 identified as another category not listed. Most participants identified as White (95), 10 as Black, 4 as Asian, 4 participants identified as two or more races which did not include Hispanic or Latino, and 2

participants identified as Hispanic. Participants all completed the SONA prescreen and signed an informed consent form prior to being considered for participation (See Appendix A for complete form). Participants completed the study online on a computer and at a location of their choosing.

Procedure

After providing consent, participants were told that they were participating in a study to gather information about young adults' opinions regarding social media scandals. Participants were then shown a photograph of a well-known influencer and prompted to read a short amount of background information about the influencer. Participants were then asked to disclose their level of previous awareness about the influencer and completed a Perceived Similarity Scale about the influencer. Next, participants read a fake online story reporting the influencer's involvement in a controversial situation. Participants then viewed several statements directing negative comments toward the influencer because of their involvement in the controversy. Participants were told that these statements were taken from the social media platform Twitter. Participants were then asked to complete an Online Aggression Attitudes Scale reporting their attitudes about the critical statements and their attitudes about the featured influencer's involvement. This process was repeated for two other well-known online influencers. The order of the influencers was randomized for each participant. Finally, participants were administered the Interpersonal Reactivity Index to measure overall empathy. Participants were then given a 6-item questionnaire investigating their typical online behaviors and social media use. This questionnaire concluded the study for each participant. Demographics were collected from an online SONA pre-screen that is required for participants prior to completion of any research study on SONA.

Measures

Social media influencers. I selected three real social media influencers to feature in three separate vignettes in this study: Sarah Baska, Anna Akana, and Jackie Aina. All three influencers have a large platform on the social media site YouTube; each influencer has over one million subscribers. I created a short paragraph of biographical information to correspond with each influencer based on real information provided about them online, and selected three photographs to correspond with each influencer as well (See Appendix B for Sarah Baska's full information, Appendix C for Anna Akana's full information, and Appendix D for Jackie Aina's full information). I also created three controversial situations that each of the influencers was reported to be involved in for the purpose of this study. The controversies reported were not real events; however, each controversy was inspired by real events that have received large amounts of attention online in recent years. For example, the controversy Anna Akana was reported to have been involved in surrounded an online counseling site that turned out to be fraudulent. This vignette was based on real occurrences surrounding the online counseling site BetterHelp; many YouTube stars have faced backlash for their sponsored promotions of BetterHelp on social media or during their videos, and after the site faced an onslaught of complaints through the Better Business Bureau, the company claimed that they never guaranteed that users would be given services by a qualified professional (The Atlantic, 2018). The controversy that Jackie Aina was reported to be involved in concerning a faulty makeup palette was inspired by YouTuber Jaclyn Hill who publicly marketed her own line of lipsticks that were quickly criticized as being poor quality and potentially unsafe to use (Buzzfeed, 2019). The YouTubers I chose to feature in this study were also selected in order to tailor plausible controversies to match them. For example, it would be reasonable even for participants who had previously heard of Jackie Aina

to assume that, since she is a makeup artist and entrepreneur, she may have been involved in a controversy involving a makeup line.

I additionally created a series of Tweets in response to each of these controversies that were also inspired by real online responses to controversies involving online celebrities. For example, a Facebook user responded to Jaclyn Hill's lipstick controversy by stating "That she still sells those lipsticks shows just how moneyhungry [sic] she is. There is no other explanation. If she really cared about people she would pull every item off the market and give refunds to costumers [sic]" (taken from Facebook user Freddy Em's account, 2019). All comments used in the study were created to mimic these kinds of critical responses.

Empathy. Participants completed a 28 question IRI, or Interpersonal Reactivity Index, to measure empathy (See Appendix K for full questionnaire). The IRI presents statements such as "I really get involved with the feelings of the characters in a novel," and "When I see someone get hurt, I tend to remain calm," and asks participants to choose a letter, A through E, A indicating "does not describe me well" and E indicating "describes me very well" (Davis, 1980). This questionnaire measured the strength with which participants emotionally react towards others, and also how well they are able to empathize. The Alpha for the original study was .88, and the Alpha for our study was .83.

Perceived similarity. Participants also completed a 10-item questionnaire to measure their level of perceived similarity to figures with which they interacted during the study (See Appendix I for full questionnaire). The scale being used was adapted from existing Perceived Similarity Scales in order to fit an online context. Alpha for the original scale was .77 (Sanders, Winters, & Fischella, 2015). Participants in our study completed the scale three different times corresponding with three separate vignettes, and the Alphas were .85, .80, and .70 for each

vignette featuring influencer Sarah Baska, Anna Akana, and Jackie Aina respectively. The scale presented participants with statements such as “This person and I are similar in terms of gender” and “I feel that this person and I have similar lifestyles.” The scale asked them to pick a number from 1 to 5, 1 representing “strongly disagree” and 5 representing “strongly agree,” indicating how much they agreed with each statement. This questionnaire measured how similar participants perceived themselves to be to the specific individual featured in each vignette across a number of different criteria.

Online aggression. Participants also completed a questionnaire developed in order to measure their compliance with and willingness to participate in online aggression (see Appendix J for full questionnaire). A higher score on the questionnaire indicates a lower level of online aggression and a higher level of online sympathy. The questionnaire presented participants with various statements in reaction to a set of aggressive online criticism that they read. These included statements such as “I find these responses to be hurtful” and “I think these responses are funny or humorous” and participants rated each statement from 1 to 5, 1 indicating that they strongly disagree and 5 indicating that they strongly agree. The questionnaire was completed by each participant three times, each time corresponding to a different vignette. The Alphas for each consequential completion were .83, .81, and .86 for Sarah Baska, Anna Akana, and Jackia Aina respectively.

Online behavior. Participants also completed a short questionnaire inquiring about their typical online behavior such as number of social media sites used and frequency of use. This gathered information about their typical behavior online outside of the study.

Results

Hypotheses 1 and 2

My first hypothesis predicted that higher empathy, as measured by scores on the Interpersonal Reactivity Index (IRI), would correlate with lower online aggression as measured by scores on the Online Aggression Attitudes Scale (OAAS). To reiterate, higher scores on the OAAS actually reflect lower online aggression and higher online sympathy. Our second hypothesis predicted that higher perceived similarity as measured by Perceived Similarity Scale (PS) scores would also correlate with lower online aggression. All correlation values are presented in Table 1.

Sarah Baska. Overall empathy and online aggression did not significantly correlate for Sarah Baska. However, perceived similarity and online aggression did have a significant correlation; the more similar participants felt to Sarah Baska, the less online aggression they exhibited towards her.

Anna Akana. Overall empathy and online aggression did significantly correlate for Anna Akana; the more empathy that participants had, the less online aggression they exhibited. However, perceived similarity did not significantly correlate with online aggression for Anna Akana.

Jackie Aina. Similar to Anna Akana, empathy did significantly correlate with online aggression for Jackie Aina, and the higher participants' overall empathy was, the less online aggression they directed. Furthermore, there was no significant correlation between perceived similarity and online aggression for Jackie Aina either.

Hypothesis 3

My third hypothesis, that perceived similarity and empathy would interact to predict online aggression, was supported by one out of three vignettes. Using PROCESS model 1 (Hayes, 2016), I found that the model was not significant for Sarah Baska, $F(3, 103) = 1.90$, $p =$

.13, or Jackie Aina, $F(3, 101) = 2.53$, $p = .06$. The overall statistical model was significant for Anna Akana, $F(3, 104) = 3.00$, $p = .03$, however, there was no significant interaction between perceived similarity and empathy predicting online aggression, $t = -.20$, $p = .84$, nor were the main effects of perceived similarity or empathy significant, $t = .12$, $p = .91$ and $t = 1.0$, $p = .30$ respectively.

Research Question 1

Research Question 1 asked the following: Is there a significant difference in level of perceived similarity or a significant difference in aggression among the three influencers? I conducted two 3 (influencer) x 6 (condition based on participant viewing order) repeated measures ANOVAS to determine if there were significant differences in levels of Perceived Similarity (PS) and Online Aggression (OA) among the three influencers - Sarah Baska, Anna Akana, and Jackie Aina - included in each of our three vignettes. I controlled for participant ethnicity and whether each participant had heard of the influencer, had watched a video of the influencer, were subscribed to their channel, or followed them across any other social media platforms. The between groups variable of participant condition was not significant in either of the analyses, $F(5, 98) = .92$, $p = .47$ and $F(5, 102) = 1.12$, $p = .33$ for similarity and aggression, respectively.

We found a significant difference in perceived similarity between all three the influencers, $F(2, 196) = 37.06$, $p < .001$, $\eta^2 = .27$, and follow-up t-tests revealed significant differences in reported levels of PS among all three influencers (See Figure 2). Participants reported the highest overall PS levels toward Sarah Baska ($M = 2.99$, $SD = .81$), the second highest towards Anna Akana ($M = 2.72$, $SD = .73$), and the lowest towards Jackie Aina ($M = 2.18$, $SD = .53$). Participant ethnicity did interact with perceived similarity of influencers, $F(2,$

196) = 9.65, $p < .001$, $\eta^2 = .08$. However, as only 18 people identified as not white, interpretations are limited. We did not find a significant difference in Online Aggression toward the three influencers, $F(2, 204) = .17$, $p = .84$, $\eta^2 = .002$.

Additional Post-Hoc Analyses

After conducting my initial analyses, I had further questions regarding my findings. I wanted to examine whether or not a few questions on the Online Behavior Questionnaire correlated with online aggression. The four questions from the Online Behavior Questionnaire that I wanted to further examine were: 1. I have posted a mean comment about a celebrity on social media, 2. I have criticized the physical appearance of a celebrity online, 3. I have shared a negative news article about a celebrity, and 4. I have reposted or liked a post saying something mean about a celebrity online. Question 1 had a significant, negative correlation with online aggression scores for all three influencers, indicating that if a participant had previously posted a mean comment about a celebrity on social media, they were more likely to exhibit online aggression towards the influencers in our study. Whether or not participants had previously critiqued a celebrity's appearance online did not significantly correlate with online aggression for any of the influencers. Having previously shared a negative news article about a celebrity predicted the display of online aggression for Sarah Baska and Jackie Aina. Finally, having previously reposted or liked a post saying something mean about a celebrity online predicted higher aggression for all three influencers (See Table 2 for all correlations).

Discussion

Overall, the results from the present study indicate that higher empathy generally predicts a higher likelihood to display empathic behavior online. Additionally, perceived similarity was also a predictor for empathic behavior in one out of the three vignettes featured. Participants felt

significantly different levels of perceived similarity towards the three influencers they encountered, however, they did not exhibit significantly different levels of online aggression towards them. If a participant had previously exhibited online aggression outside of the study, they were more likely to exhibit online aggression within the study; similarly, if a participant was aggressive towards one influencer in the study, they were likely to be aggressive towards the remaining two. This suggests that online aggression could be a behavior that presents itself in a pattern.

The significant, positive correlation between empathy and low online aggression for two of my vignettes both supports my first hypothesis and is consistent with the existing literature about empathy and its relationship with social factors and online interactions. Higher levels of affective empathy have been shown to decrease the likelihood of engaging in peer cyberbullying and online aggression towards celebrities in adolescents (Ouvrein, De Backer, & Vandebosch, 2018). The findings of this study not only further the conclusion that higher levels of empathy are generally related to lower levels of online aggression, but they also extend this conclusion to a new age group: emerging adulthood. As emerging adults are frequent social media users, identifying empathy as a trait that potentially influences their behavior online is a crucial finding and one that warrants further exploration (Perrin, 2015). However, the lack of a significant correlation between empathy and sympathy toward online influencers in one of our three vignettes featuring Sarah Baska was an unexpected finding and inconsistent with our first hypothesis. Sarah Baska was, however, the only influencer for whom perceived similarity correlated with online sympathy.

Racial identity may have played a crucial role in the way in which empathy and perceived similarity related to online sympathy in our study. The only influencer for whom

perceived similarity correlated with online sympathy was the one white influencer featured, Sarah Baska. Conversely, the only two influencers for whom empathy correlated with online sympathy were the two non-white influencers. Only 18 of our participants identified as non-white, so interpretations of how participant racial identity factored into these interactions is statistically limited. However, the finding that perceived similarity correlated with online sympathy for only one out of three influencers is important. A possible conclusion is that when perceived similarity fails to occur between an individual and a target of possible aggression, empathy can act as an intervening factor that warrants online sympathy even in the absence of a social bond such as perceived similarity. Our results lead to the conclusion that overall, empathy may be a more important factor in reducing likelihood of engaging in online aggression towards celebrities, and by extension, cyberbullying and other aggressive forms of behavior.

Racial identity may have also played a crucial role in the level of reported perceived similarity among our three featured vignettes. The level of perceived similarity was significantly different among all three influencers; participants reported the highest amount of perceived similarity towards Sarah Baska, the second highest towards Anna Akana, and the lowest towards Jackie Aina. Our largely white participant pool did report feeling most similar over-all towards the one white influencer featured in our study; however, only two questions in our perceived similarity scale explicitly asked about racial identity. A possible influencing factor in the differences in reported perceived similarity may be identified in the biographical statement provided for Jackie Aina, the influencer who overall warranted the least amount of reported perceived similarity from participants. All influencer bios were crafted to reflect existing biographical information about each influencer, and were therefore intended to be accurate reflections of each influencers identity as it is portrayed online. Jackie Aina's identity as a

Nigerian-American is a significant part of her online presence, and something she and those who write about her online are very vocal about. Therefore, Jackie Aina's biographical statement did explicitly mention that she is Nigerian-American, while the biographical statements for our two other featured influencers mentioned no explicit information about their racial identities. This may have influenced participants' reported levels of perceived similarity felt towards her.

We did not find a significant difference in online sympathy exhibited towards any of the three influencers featured in our vignettes, which is a noteworthy finding when paired with the fact that there was a significant difference in reported perceived similarity among all three influencers. Researchers have previously found that perceived similarity increases an individual's likelihood to exhibit empathy towards an outside figure (McKeever, 2015; Xu et al., 2009). However, this finding in our study, paired with the finding that perceived similarity only correlated with online sympathy in one out of three vignettes, is inconsistent with this conclusion. This further leads to the conclusion that in online interactions, different social factors could be at play in determining empathic behavior.

One such social factor could be likeability. Researchers examining the relationship between empathy and online aggression have previously identified that well-liked celebrities are less likely to be the target of online aggression and negative commenting (Ouvrein, Pabian, Machimbarrena, De Backer, & Vandebosch, 2018). This phenomenon could play a crucial role in determining why there was an inconsistent relationship between empathy, perceived similarity, and online aggression across our three vignettes. While our Perceived Similarity Scale did ask participants to respond using a 5 point likert scale to the statement "I could see myself getting along with - " including each influencer's name in conclusion to the statement, the level to which each participant would rate our featured influencers as likeable was not extensively

measured. The biographical statements and images provided for each influencer may have not only influenced the level of similarity that participants felt towards each influencer, but the level of likeability they associated with them. Differences in likeability between each influencer may have been an unintended variable that influenced whether or not empathy or perceived similarity was a predictor for each participant's display of online sympathy. Future research could examine the relationship between likeability, empathy, and online aggression, specifically to examine whether or not empathy acts as a mediator when individuals have the option to react aggressively or sympathetically towards a disliked figure.

Additionally, we found that online aggression for all three influencers correlated. This suggests that if people exhibit aggressive behavior online towards one figure, they are likely to display a pattern. If participants were more or less aggressive towards one influencer, this predicted a similar display of either aggression or sympathy towards the other two influencers. Furthermore, exhibiting online sympathy in one situation also may indicate a pattern of sympathetic behavior in subsequent interactions. We also found that if participants reported having engaged in online aggression outside of the study, their online aggression was higher within the confines of the study. Specifically, having previously posted a mean comment about a celebrity on social media and having previously reposted or liked a post saying something mean about a celebrity online correlated with participant's online aggression levels for all three influencers featured. While having critiqued a celebrity's physical appearance online did not correlate with online aggression for any of the three influencers, this could be due to the fact that none of the aggressive comments participants interacted with in this study related to physical appearance specifically. These findings, paired with the finding that empathy was a stronger predictor of online sympathy in our study than perceived similarity, suggests that if emerging

adults begin to engage in a pattern of behavior that rejects online aggression, they will continue to do so in scenarios thereafter.

As virtual empathy has been previously shown to correlate with real-world face-to-face empathy, (Carrier et al., 2015) these findings could also suggest that encouraging empathic behavior online will lead to empathic behavior in a multitude of other situations as well. This is further consistent with previous findings that social media use over time positively correlates with increases in both cognitive and affective empathy when it promotes a greater understand for peers' inner thoughts emotions (Vossen & Valkenburg, 2016). If individuals can be encouraged to increase empathic behavior in the midst of a common pattern of online aggression towards figures online, this can lead to a continued pattern of virtual empathy, and to an increase in empathy in face-to-face interactions and other scenarios.

In conclusion, our results suggest that scores on an empathy index are a stronger predictor of an individual's likelihood to display either aggressive or empathic behavior towards a celebrity figure online than perceived similarity. This implies that even in cases in which two individuals interacting on an online platform do not feel a level of similarity to one another that could potentially motivate prosocial behaviors, empathy may instead be a more important variable in minimizing the likelihood that aggression will take place. Furthermore, we identified that aggressive or sympathetic behavior is likely to occur consistently across different scenarios. This suggests that an individual's predisposition to act empathically will lead to a continued pattern of behavior in subsequent interactions. As such, finding ways to encourage empathy in online interactions could be a crucial factor in reducing online aggression.

Limitations and Future Directions

A large limitation posed to the present study was the lack of a diverse participant pool; only 18 of the 115 participants were non-white. As such, any analysis of how participant race or ethnicity contributed to their responses was statistically inappropriate, and future research could certainly benefit from seeking a more diverse participant pool. Additionally, and most importantly, this would allow for a more representative sample corresponding to internet users in the emerging adult age category.

As perceived similarity was only found to have a significant relationship to online aggression in one out of our three vignettes, future research could look to other social factors that could potentially influence an individual's aggressive or empathic behavior online. Researchers have previously identified that perceived similarity does correlate with higher empathic behavior (McKeever, 2015; Xu et al., 2009), but the findings of this study suggest that perceived similarity's influence in face-to-face interactions may not extend to online interactions. As such, other factors that have been shown to influence the display of empathy in face-to-face interactions such as attractiveness and social in-group or out-group status (Muller et al., 2013; Cikara et al., 2017), may have varied applications to online interactions. Future research concerning how these kinds of factors influencing whether face-to-face empathy extends to online interaction could provide crucial insight into how online interactions may fundamentally differ from face-to-face interactions in terms of exhibiting empathic behavior and the influence of social factors on empathy. Notably, the way that such factors may interact with empathy warrants further examination. Specifically applying to the online realm, researchers have identified that likeability correlates with a lower likelihood of exhibiting aggression towards online celebrities (Ouvrein, et al., 2018). Likeability's interaction with empathy in online interaction, however, has not been examined and could be further explored.

Another limitation of the present study is that all featured influencers were women; our participant pool was also significantly made up of mostly women. The role that gender plays in the relationship between empathy and online aggression was therefore not able to be significantly examined. Future research, and the acquisition of a more representative participant pool, could examine gender specifically as a factor influencing online aggression.

While the present study did identify that online aggression may occur in a pattern, future research could examine whether or not empathic behavior specifically culminates in a pattern as well. Participants were more likely to exhibit aggressive behavior if they had previously exhibited online aggression outside of the study, but the display of empathic behavior in past scenarios was not examined. Future research could explore how empathic behavior may or may not lead to repeated displays, and further illuminate what leads emerging adults to choose to reject a pattern of online aggression and decide to exhibit empathic behavior instead.

Conclusion

As emerging adults continue to use social media in a large capacity, and the phenomenon of online fame continues to gain traction, interactions between internet users and this new genre of online influencers is a crucial area to examine. Specifically, the way in which empathy and other social factors influence these interactions can provide critical insight into how social connectedness online functions when direct interaction does not take place. The present study, examining whether empathy and perceived similarity relate to empathic behaviors online, identified a correlation between empathy and less online aggression in two out of three featured vignettes, and a correlation between perceived similarity and less online aggression in the remaining vignette. As such, empathy appears to play a more crucial role in predicting aggressive behavior online than perceived similarity. This is an encouraging finding, as even in

situations in which two individuals do not share many common perceptible traits, empathy may be more effective at preventing aggression from taking place. Another finding that supports the conclusion that empathy plays a larger role in predicting online aggression is that even though perceived similarity was significantly different for all three online influencers featured in this study, there was no significant difference in online aggression between them. Furthermore, a crucial finding of this study was identifying evidence that aggressive online behavior may occur in a pattern. Individuals who had engaged in online aggression outside of the study had higher levels of online aggression, and the exhibition of online aggression towards one influencer within the study predicted online aggression towards the remaining influencers. In conclusion, empathy may be a key factor in reducing and preventing an individual's likelihood to engage in aggressive behavior online.

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Table 1

Correlation table.

	SB Similarity Avg	SB Online Aggression Avg	AA Similarity Avg	AA Online Aggression Avg	JA Similarity Avg	JA Online Aggression Avg	IRI Total Scale Avg	IRI Fantasy Avg	IRI Empathic Concern Avg	IRI Personal Distress Avg	IRI Perspective Taking Avg
SB Similarity Avg	1										
SB Online Aggression Avg	.198*	1									
AA Similarity Avg	.557**	.096	1								
AA Online Aggression Avg	.086	.447**	.054	1							
JA Similarity Avg	.146	-.067	.227*	-.107	1						
JA Online Aggression Avg	.180	.657**	.161	.456**	-.040	1					
IRI Total Scale Avg	.266**	.000	.307**	.277**	.034	.220*	1				
IRI Fantasy Avg	.225*	-.101	.292**	.119	-.035	.055	.728**	1			
IRI Empathic Concern Avg	.254**	.178	.219*	.300**	-.014	.357**	.753**	.347**	1		
IRI Personal Distress Avg	.144	-.140	.145	.045	.177	-.042	.456**	.233*	.092	1	
IRI Perspective Taking Avg	.144	.124	.209*	.323**	-.061	.291**	.600**	.221*	.563**	-.158	1

Note. * indicates $p < .05$, ** indicates $p < .01$. SB indicates Sarah Baska, AA indicates Anna Akana, and JA indicates Jackie Aina

Table 2

Online behavior questionnaire and online aggression correlation table.

	OBQ #1	OBQ #2	OBQ #3	OBQ #4	SB Online Aggression Avg	AA Online Aggression Avg	JA Online Aggression Avg
OBQ #1	1						
OBQ #2	.496**	1					
OBQ #3	.543**	.454**	1				
OBQ #4	.466**	.352**	.496**	1			
SB Online Aggression Avg	-.267**	.019	-.200*	-.207*	1		
AA Online Aggression Avg	-.297**	-.004	-.166	-.187*	.447**	1	
JA Online Aggression Avg	-.281**	-.098	-.229*	-.274**	.657**	.456**	1

Note. * indicates $p < .05$, ** indicates $p < .01$. OBQ indicates Online Behavior Questionnaire. SB indicates Sarah Baska, AA indicates Anna Akana, and JA indicates Jackie Aina. The OBQ items listed are as follows: OBQ #1: I have posted a mean comment about a celebrity on social media. OBQ #2: I have criticized the physical appearance of a celebrity online. OBQ #3: I have shared a negative news article about a celebrity. OBQ #4: I have reposted or liked a post saying something mean about a celebrity online.

APPENDIX A

INFORMED CONSENT FORM

You are invited to participate in a research study, and your participation in this study is completely voluntary. The purpose of the study is to examine college students' attitudes about social media scandals.

RESEARCH PROCEDURES

Participants will read short descriptions about popular online influencers and online entertainers, and then short descriptions and reactions to controversies that they have been involved in. Participants will then be asked to participate in a questionnaire gathering information about their attitudes towards these events. The study will take approximately 30 minutes and is completely voluntary. All responses will remain confidential. You do not have to answer any question that makes them feel uncomfortable. You may end your participation at any point without penalty.

RISKS

We do not anticipate that participants will encounter any long-term risks. Participants will be able to skip any portion of the research that may make them feel uncomfortable, and may end the survey at any time. All responses will remain confidential.

BENEFITS

There are no direct benefits to you as a participant. Larger benefits of the research include contributing to the literature about how young adults react to online controversies and social media scandals. Participation will earn participants SONA study participation credit at the discretion on their instructors. Based on current SONA participation credit guidelines, as the study is expected to take 30 minutes to complete, so students will earn 1 points of credit for their participation.

CONFIDENTIALITY

The data in this study will be confidential. Data will be collected through SONA which will maintain confidentiality. The researches involved in this project, Dr. Alexandra Zelin and Olivette Petersen, will have access to the data. If a participant chooses to discontinue participation, their data will be removed immediately and will not be used in the data set.

PARTICIPATION

To participate you must be between 18 and 22 years of age and have signed up for the study using UTC's Research Participation System (SONA). All participation is voluntary and you may discontinue participation in the study at any time you wish. If information has already been collected from a participant and the participant wishes to withdraw from the study, the information collected will not be used in the data set and will be discarded.

CONTACT

This research is being conducted by Olivette Petersen and Dr. Alexandra Zelin in the Department of Psychology at the University of Tennessee at Chattanooga. They can be reached via email

tbl482@mocs.utc.edu and Alexandra-zelin@utc.edu to report research-related problems. The research project was approved by the Institutional Review Board at the University of Tennessee at Chattanooga. You can also contact the Institutional Review Board at the University of Tennessee at Chattanooga (423-425-5867).
You may also contact the UTC IRB Chair, Dr. Amy Doolittle, at 423-425-5563 if you have any questions. UTC's Counseling Center contact number is 423-425-4438.

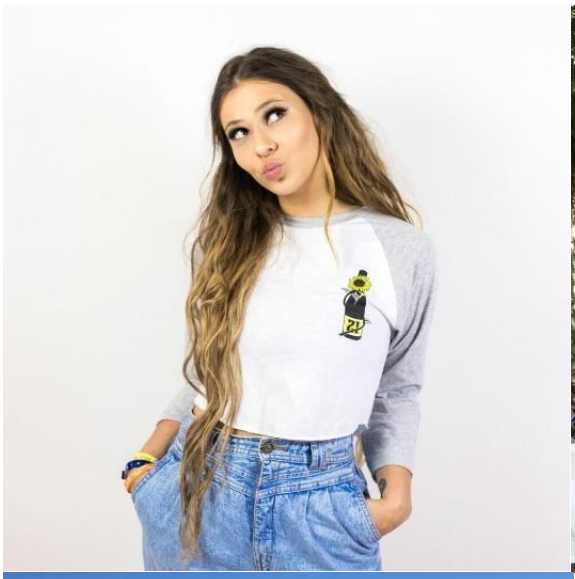
CONSENT

By checking this box, I am indicating my consent and choosing to participate in this study

☐

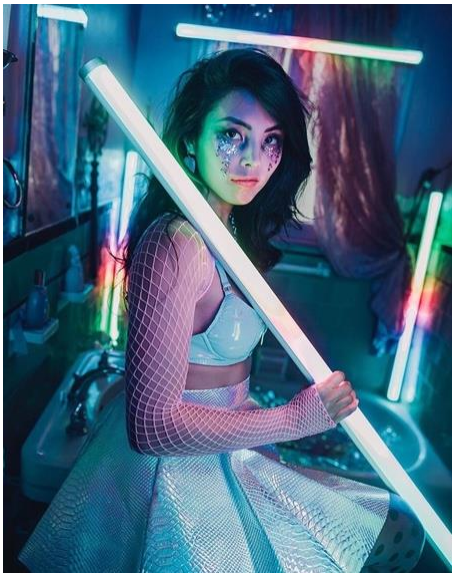
APPENDIX B

Sarah Baska is a well-known YouTuber who got her start on the social media site Vine making short, funny video clips. Sarah makes comedic videos sharing stories about her life with fans, with topics such as “My Cringey Christmas Stories,” travel videos with humorous twists like “Stranded in Canada with No Money + Food + Dignity,” or sketches like a morning routine video while dressed like Billy Ray Cyrus. She’s known for her quirky, relatable sense of humor, her love of pop music and Taco Bell, and her outgoing personality.



APPENDIX C

Anna Akana is a filmmaker, musician, comedian, and writer who first gained popularity on YouTube. Anna has previously stated in interviews that her YouTube channel serves as a creative outlet and a way to heal. After her younger sister's suicide, making people laugh has helped her recover and grow through her creativity. Her channel acts a platform for her to express her thoughts about living, creating, dating, and surviving in the modern digital age. Anna is known for her love of cats, her openness about mental health, and her love of writing and making art.



APPENDIX D

Jackie Aina is a Nigerian-American beauty vlogger who's well-known for her YouTube channel. She's a big advocate for visibility of people of color in the cosmetic industry, and has even created and sold her own makeup products. Jackie's known for her passion about the artistry of makeup, her honest critiques of the beauty industry, her bold sense of humor, and her self-proclaimed "weird and crazy" persona.

APPENDIX E

Sarah Baska recently released a line of merchandise inspired by her online presence. Included in her merch line were hoodies and T-shirts featuring popular slogans and catchphrases that she coined on her YouTube channel. Many people online were quick to criticize Sarah for the expensive price of her merch, with hoodies costing upwards of $70. Sarah responded to this criticism claiming that this high cost was due to the locally-sourced production of all of the clothing. However, it was recently confirmed that this was not true.
Here's what a few people have had to say on Twitter:

$70 for a Walmart quality hoodie????? this is a joke.
These prices are ugly and so is Sarah Baska for lying about them.
The Sarah Baska merch scandal is ridiculous. She clearly knew what she was doing and lied for money.

APPENDIX F

Anna Akana has promoted an online counseling site in many of her videos in exchange for paid sponsorships. The counseling site has come under fire recently as many users and mental health professionals have questioned the ethics of its practices. Many of the "counselors" providing service do not have adequate credentials, leading many people to claim that the site is a scam. Fans have begun to criticize Anna online for promoting the site without looking into it fully.
Here's what a few people have had to say on Twitter:

You can't claim to care about mental health and then blindly promote an online scam. Trash.
Anna Akana used to care about her content, but it's clear that now she only cares about profit.
If Anna could make any money off of her terrible music career, she wouldn't have to promote scams online.

APPENDIX G

Jackie Aina recently created and released an eyeshadow palette. Many people were quick to complain about the palette, claiming that it was overpriced and extremely low quality. Jackie responded to critics, saying that she worked hard to produce the palette and, happy with the results, she would not be recalling or discounting the product. This provoked many angry responses online.
Here's what a few people have had to say on Twitter:

Don't know why we're surprised, this makeup palette is as trashy as its creator
I've been a fan for a long time, but I'm really disappointed in Jackie's disrespect for her fans by pushing this poor quality palette.
I'm unsubscribing after years of following Jackie. Fans deserve refunds for this.

APPENDIX H

PREVIOUS KNOWLEDGE OF INFLUENCER QUESTIONNAIRE

Have you ever heard of _____ outside of this study?
Have you ever watched one of _____'s YouTube videos?
Are you subscribed to _____'s YouTube channel?
Do you follow _____ on any other social media platforms?
If answered yes to any of the previous questions, please rate how much you agree with the following statements from 1 – strongly disagree to 5 – strongly agree:
I am a fan of _____.
I enjoy _____'s content.
I like _____ as a person.

APPENDIX I

PERCEIVED SIMILARITY SCALE

Please rate how much you agree with the following statements from 1 – strongly disagree to 5 – strongly agree:

_____ and I are similar in terms of gender.
_____ and I are similar in terms of age.
_____ and I are similar in terms of race or ethnicity.
_____ and I are similar in terms of skin color.
_____ appears to have similar interests as me.
The way that _____ and I look is similar.
The way that _____ and I dress is similar.
I feel that _____ and I have similar lifestyles.
I could see myself getting along with _____.

APPENDIX J

ONLINE AGGRESSION ATTITUDES SCALE

Please rate how much you agree with the following statements from 1 – strongly disagree to 5 – strongly agree:

I feel that these commenters are justified in their responses.
I think these responses are funny or humorous.
I find these responses to be hurtful.
_____ must feel bad when reading these responses.
I sympathize with _____.
_____ deserves to be criticized for her actions.
I think that these kinds of comments are examples of cyberbullying.
_____ should lose fans after this.
I don't really think that _____ is at fault.
I would unsubscribe from _____.

APPENDIX K

INTERPERSONAL REACTIVITY INDEX

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

A	B	C	D	E
DOES NOT DESCRIBE ME WELL				DESCRIBES ME VERY WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me.
2. I often have tender, concerned feelings for people less fortunate than me.
3. I sometimes find it difficult to see things from the "other guy's" point of view.
4. Sometimes I don't feel very sorry for other people when they are having problems.
5. I really get involved with the feelings of the characters in a novel.
6. In emergency situations, I feel apprehensive and ill-at-ease.
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
8. I try to look at everybody's side of a disagreement before I make a decision.
9. When I see someone being taken advantage of, I feel kind of protective towards them.
10. I sometimes feel helpless when I am in the middle of a very emotional situation.
11. I sometimes try to understand my friends better by imagining how things look from their perspective.
12. Becoming extremely involved in a good book or movie is somewhat rare for me.
13. When I see someone get hurt, I tend to remain calm.
14. Other people's misfortunes do not usually disturb me a great deal.
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
16. After seeing a play or movie, I have felt as though I were one of the characters.
17. Being in a tense emotional situation scares me.
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
19. I am usually pretty effective in dealing with emergencies.
20. I am often quite touched by things that I see happen.
21. I believe that there are two sides to every question and try to look at them both.
22. I would describe myself as a pretty soft-hearted person.
23. When I watch a good movie, I can very easily put myself in the place of a leading character.
24. I tend to lose control during emergencies.
25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
27. When I see someone who badly needs help in an emergency, I go to pieces.
28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

APPENDIX L

ONLINE BEHAVIOR QUESTIONNAIRE

Please rate how often you have participated in the following behaviors from 1 – never to 5 – frequently:

1. I have posted a mean comment about a celebrity on social media.
2. I have criticized the physical appearance of a celebrity online.
3. I have shared a negative news article about a celebrity.
4. I have reposted or liked a post saying something mean about a celebrity online.

Please respond to the following questions by indicating either ‘yes’ or ‘no’ in response.

1. I follow at least one person who could be considered an online influencer on social media.
2. There is at least one online influencer who I follow on multiple social media sites.
3. I have purchased merchandise sold by an online influencer.
4. I check social media every day.
5. I make posts on my own social media account frequently.
6. I rarely post on social media.

APPENDIX M

DEBRIEFING FORM

Thank you for your participation in this research study. We greatly value your contribution to our research. We would like to disclose with you that during our study, there were a few instances of deception which will now be described.

All of the online influencers who you viewed during this study are real individuals. However, all descriptions of them were created by researchers and should not be considered reflective of or associated with the persons being described.

All controversies described in this study were FICTIONAL EVENTS. The influencers described had NO real involvement in these situations as described. The Twitter post reactions you read were also fictional. Please note that none of the situations you read about ever actually occurred as described, and were not real events.

Furthermore, while you were told that the purpose of this study was to gather information about college students' attitudes about social media scandals, the purpose of this study is actually to gather information about how empathy and perceived similarity interact to affect interactions with online aggression.

We believe that it was necessary to conceal the true purpose of our study so that your responses would not be influenced in any way. Furthermore, we believe that it was necessarily to lead you to believe that all of the presented scenarios were true so that your responses would be as realistic as possible.

Because we hope to have many more participants in our study, we ask that you refrain from discussing anything about the questions you were asked or the scenarios you were told about from this point on. If participants were to be aware of our study's purpose, or aware of the fact that we present participants with fictional scenarios during the study, it would affect the accuracy of the data we are collecting.

We would like to thank you again for your participation! If you have any comments or questions, please contact Olivette Petersen at tbl482@mocs.utc.edu or Dr. Alexandra Zelin at Alexandra-zelin@utc.edu

Please indicate below whether you would like for your data to be included in our study, or whether you wish to withdraw your data at this time:

☐ By checking this box, I am indicating that I have read and acknowledged all debriefing information, and I DO consent to have my data included in this study.

☐ By checking this box, I am indicating that I have read and acknowledged all debriefing information and I DO NOT consent to have my data included in this study.