ONLINE COMMUNICATION ATTITUDE AND PARASOCIAL INTERACTION WITH CELEBRITIES ACROSS FACEBOOK AND TWITTER
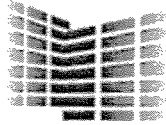
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Online Communication Attitude and Parasocial Interaction with Celebrities Across Facebook
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Online Communication Attitude and Parasocial Interaction with Celebrities Across Facebook and Twitter

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This study draws upon the paradigm of parasocial interaction and incorporates the Source Credibility Scale (McCroskey, Hamilton, & Weiner, 1974), the Measure of Online Communication Attitude (Ledbetter, 2009), and the Parasocial Interaction measure (Auter & Palmgreen, 2000) in order to examine the extent to which online communication attitudes foster such interaction and shape perceptions of media figures' and celebrities' credibility. Data from 593 individuals were collected, and hypotheses and research questions were analyzed using regression analysis on a usable sample of 343 participants. Results indicate that parasocial interaction is always a positive predictor, and communication apprehension is an inverse predictor, of source credibility. These findings allow for more research to be conducted in the realm of social media.

Keywords: Facebook, Twitter, social networking site, parasocial interaction, attitude, source credibility

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and Twitter

Although Facebook and Twitter often serve as venues for interpersonal communication, they are also popular social networking sites for receiving information and forging connections with celebrity accounts; indeed, some such accounts possess millions of followers. Such activity not only raises practical questions about the psychological motivations underlying such connections to celebrities, but also theoretical questions about how features of social networking sites (as a hybrid of interpersonal and mass communication; O'Sullivan, 2000) shape the nature of such pseudo-personal interactions.

Former United States President Ronald Reagan once said, "Information is the oxygen of the modern age. It seeps through the walls topped by barbed wire, it wafts across the electrified borders," (Paulson, 2006) Although President Reagan was referencing the flow of information across the Iron Curtain, his words are also prescient regarding social networking sites, which now freely transmit information between friends, family, celebrities, news, and other areas of interest. We as a society have become dependent on the Internet and the attitude of the users dictates the flow of information gathered and interpreted (Ledbetter, 2009).

As of this writing, Facebook and Twitter are two of the most widely used websites for social networking. The chief purpose of this study is to evaluate whether online communication attitude serves as a predictor of celebrity *parasocial interaction*, a form of communication whereby fans feel as if they share a personal bond with the celebrity, which, in turn, predicts perception of the celebrity's credibility.

Historical Background

Social Networking Sites

According to boyd and Ellison's (2007) foundational description, a website is a *social networking site* if it possesses three characteristics. First, the site must allow the user to create a personalized profile; on sites such as Facebook and Twitter, such profiles often include information such as religious beliefs, political affiliation, educational history, and interests. Second, the site must allow users to form visible connections between their profile and those of other users. Thus, such sites aid in the connection of others that feature similar interests and educational history. Third, the site must allow users to view and traverse the links among users. For example, on Facebook and Twitter, an individual can search for other users that attend the same institution, have similar interests in music and film, or search for friends from one's past. According to boyd and Ellison (2007), a *social networking site* is a bounded system that collects a list of users that share a common bond and offers a means to access other users' profiles. Social networking sites are now a common means for conducting interpersonal relationships, and their use predicts relational closeness beyond that explained by frequency of offline communication (Ledbetter, Mazer, DeGroot, Meyer, Mao, and Swafford, 2010).

Before moving forward, it is important to note that I will be using the term "social networking sites", not "social networks," to describe these online communication media. Even though the two are often substitutable in everyday interactions (boyd & Ellison, 2007), this research focuses specifically on the term "sites", which refers directly to social networking websites rather than the underlying social networks (i.e., ties between people) that they may articulate and sustain (Granovetter, 1973). For the purposes of this study, this is a meaningful distinction. Although a user may forge a social networking site connection with a celebrity by

liking that celebrity's Facebook page, most people would probably not therefore consider the celebrity as a member of the user's interpersonal social network. This distinction highlights the union of interpersonal and mass communication uses across social networking sites. Although such a union has been long theorized (e.g., Cathcart & Gumpert, 1983), social networking sites render it particularly visible. Accordingly, the purpose of this study is to explore whether motivations associated with interpersonal uses of social networking sites (more specifically attitudes toward online self-disclosure and online social connection; Ledbetter et al., 2010) also predict interaction with celebrities via two of the most popular networking websites. Before addressing these associations specifically, I will first address the relevant history of both Facebook and Twitter. This contextual background is critical to understanding the popularity (and for celebrities, fiscal importance) of connections between celebrities and their fans. Accordingly, this research will draw on both mass communication theory (parasocial interaction; Horton & Wohl, 1956) and interpersonal communication theory (online communication attitude; Ledbetter, 2009) to predict celebrity credibility in the 'masspersonal' (O'Sullivan, 2000) context of social networking sites.

Facebook

For hundreds of millions of people in the world, communication with friends, family, and colleagues often begins on Facebook (Facebook.com, 2012). Facebook is a social networking website that focuses on user interaction by means of communicating via status updates, wall postings, video and picture uploads, and chat systems. Founded in February of 2004, Facebook began as a website exclusive to Harvard University, but quickly expanded to several Ivy League institutions and Stanford University (Facebook.com, 2012). As the website began to grow, the role of online interaction evolved with it. Before Facebook, online users frequented chat rooms,

sent messages via email, or visited a popular website called Myspace.com to obtain information.

Myspace is a social networking website that is similar to Facebook, in that it featured many of

the same characteristics (e.g., the ability to articulate social ties) at the time of Facebook's

launch, yet was more customizable than Facebook and was heavily used to promote music. Even

though there are numerous similarities between Myspace and Facebook, Facebook offered a

cleaner and simpler layout that was easy to access and use. These advantages led Facebook to

first surpass, then dominate, Myspace's share of social networking site users (boyd & Ellison,

2007).

  According to Walther et al. (2008), Facebook offers a platform that allows for constant

interaction on an individual's profile page. In other words, any person that is "friends" with the

individual may see their profile, post messages on the profile wall, and even comment on their

pictures and videos. However, not all posts are positive; some Facebook interactions may present

a negative connotation that the owner of the profile may not notice. Posts made by other

individuals may upset or engage others in conversations that may reflect poorly upon the profile

user (Walther et al., 2008). In the case of *warranting* (Walther and Parks, 2002), which is "the

perceived validity of information presented online with respect to illuminating someone's offline

characteristics" (p. 33, Walther et al., 2008), the online posts may be in accordance with whether

or not the person elected to like the individual's page for the messages and information they post,

or because they like them as an entertainer. Messages from a celebrity are low-warrant (i.e., less

trustworthy) information because their posts and information come directly from the celebrity

and are thus easily manipulated by them (Walther et al., 2008).

  Currently, Facebook offers a number of features beyond its core focus on social

networking, including games, shopping, and news. In some sense, then, it has begun take on the

role that Google and Wikipedia have in terms of information provision. Following celebrities is one of the most popular of these non-interpersonal site purposes. More specifically, many celebrities and media figures (such as movie stars, athletes, politicians, and newscasters) have "pages" that can be "liked" by the users. By liking the page, the user then becomes subscribed to any updated information the celebrity posts on Facebook. This information appears in the news feed section of the social networking site, alongside information from the user's interpersonal contacts, and can be monitored by fans and friends of the celebrity. Although popular, connections to celebrities were not part of Facebook's original design, and today are arguably a secondary usage of the website. In contrast, celebrity connections were a core component of Twitter's design from the start.

Twitter

Twitter was established in 2006 and rapidly has become one of the most popular sites on the Internet. Originally developed as a way to share brief thoughts via the web in the same fashion individuals send text messages, this social networking site has evolved into a major marketing tool and source of information that rivals major news outlets. Developed by Jack Dorsey in March of 2006, the website launched in July later that year and has amassed over 300 million users (CNN.com, 2011). By 2008, Twitter entered the mainstream and recorded roughly 18 million accounts, becoming an up-and-coming force in the social networking world (Marwick & boyd, 2011; CNN.com, 2011). In 2010 alone, the website gained over 100 million new accounts (Marwick & boyd, 2011).

Twitter is, arguably, a more consequential outlet for celebrities because it allows them to post status updates (tweets) from anywhere and at any time. Even though Facebook offers the same facility, in terms of when and by which medium a user can post, Twitter allows such posts

to be viewed without traffic from photos, game invitations, and hyperlinks, as is common on Facebook. This lack of extraneous content on the Twitter feed allows for a cleaner look and a more calming feel than Facebook. Also, Twitter gives the user the freedom to follow as many people as they would like and their "tweets" appear on the Twitter feed. There is no limit as to the number of followers one can have and therefore this allows for several celebrities to amount millions of followers (Marwick & boyd, 2011).

Twitter is becoming a major source of news because major news outlets (such as Fox, NBC, CNN, CBS, ABC, and ESPN) have social media experts who post small excerpts on Twitter and often include a link to their website that may have the full story. According to a report by Nicole Lozare (2011), reporters are being held to the same journalistic standards on Twitter as they would in the publication in a newsprint or their respected companies' website. In accordance with the rise of popularity of Twitter, journalists are readily accessible and even interact with their readers (Lozare, 2011). Furthermore, the exponential use of Twitter has attracted the attention of major marketing firms. Several celebrities and news outlets are selling tweets to companies. In other words, companies are endorsing celebrities' tweets by paying them to tweet about their product or service, which usually includes a link to the company's website. Of course, with this comes several problems including spam (a message sent that is unsolicited) and hacking (the unlawful use of an account). For example, in April of 2011, rapper and entrepreneur Lil Wayne had a hacker unlawfully acquire his Twitter account information and post inappropriate messages to all of Lil Wayne's followers. Lil Wayne finally gained back control of his Twitter account, but the damage had been done. The celebrity lost numerous followers and his PR director issued a public apology. For the purposes of this study, these phenomena clearly demonstrate the importance attached to celebrity tweets and, therefore, the

need to understand predictors of positive user response to them.

Currently, musicians occupy nine of the top ten users on Twitter, according to the amount of followers of the account. The only top-ten user not in the music industry is the current President of the United States, Barack Obama (as measured by Twitterholic.com, 2011). The individual that has the most followers is entertainer Lady Gaga, with more than 19 million followers. In comparison, the company with the most amount of followers is the popular website Youtube.com, with just over 9 million followers (Twitterholic.com, 2011).

In summary, although Facebook and Twitter differ in the extent to which they have emphasized celebrity contact during their early years, following celebrities is now a popular gratification of both sites. Likewise, both sites feature celebrity posts alongside those of traditional interpersonal contacts such as friends and family. What remains unclear, then, is the extent to which interpersonal motivations may influence perception of celebrities. After reviewing uses and gratifications theory (Katz et al., 1974) as an overarching theoretical framework, I will then review Ledbetter's (2009) approach to such motivations before considering parasocial interaction (Horton & Wohl, 1956) as one form of follower-celebrity contact.

Theoretical Perspective

Uses and Gratifications

Katz, Blumler, and Gurevitch (1974) originally developed the framework for uses and gratifications theory. The authors stated that the construct of uses and gratifications was developed from "(1) The social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7)

other consequences, perhaps mostly unintended ones" (p. 20). According to Palmgreen (1984),

scholars generally have concentrated on items 2-6. Therefore, Miller (2005) developed the

typology of gratifications. The four main categories of gratification are personal identity,

integration and social interaction, information, and entertainment (Miller, 2005, p. 258, Table

14.1).

    According to uses and gratifications theory, there are three processes in which audience

activity enables effects from the media (Kim and Rubin, 1997). The first is called *selectivity*,

which explains how individuals seek specific gratifications and pursue a particular medium in

order to obtain desired gratifications. For example, an individual who wants to relax after

working all day might choose to watch a favorite television show instead of watching the news

(Miller, 2005). The next process is called *attention*. Attention encompasses the notion that

individuals allocate cognitive efforts to a medium in order to gain gratifications desired. For

example, a person who is seeking information about home improvement projects will pay more

attention to a magazine that features home improvement articles than a person who is just

reading the magazine to kill time (Miller, 2005, p. 259). The final process is called *involvement*,

whereby an audience member becomes caught up in the message and develops the sense that he

or she has a kind of relationship with the media or media characters. Even though the construct

of parasocial interaction was developed many years before uses and gratifications theory, the

modern definition of parasocial interaction developed out of the process of involvement.

Parasocial interaction is, then, a phenomenon whereby individuals develop (usually) one-sided

relationships with fictional characters or celebrities (Horton & Wohl, 1956). The individual may

even begin to develop the sense that the celebrity or media character is knowingly involved in

the relationship, when in fact they are not aware that any relationship exists (except perhaps that

of just being a fan).

Online Communication Attitude

Whereas uses and gratifications theory focuses on the specific outcomes people seek from media use, Ledbetter (2009) instead considered overarching attitudes than may lead to use or avoidance of online communication with interpersonal partners. Building from Rokeach's (1968) conceptualization of attitudes as "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (p. 112), Ledbetter (2009) sought to identify specific attitudes that may foster or inhibit online communication use. Using both exploratory and confirmatory factor analytic procedures, Ledbetter identified five dimensions of *online communication attitude* that influence patterns of media use and perception of mediated messages. These dimensions include attitudes toward (a) miscommunication, (b) apprehension, (c) convenience, (d) self-disclosure, and (e) social connection when communicating online. Several empirical studies have established these attitudes as associated with media use, including frequency of Facebook communication (Ledbetter et al., 2010), relational communication in online video games (Ledbetter & Kuznekoff, 2012), and mediated communication with same-sex friends (Ledbetter, 2009). Most such research has indicated that the *self-disclosure* and *social connection* dimensions are particularly indicative of underlying motivations to engage in online interpersonal communication. In addition, previous research has also established that loneliness is associated with parasocial interaction (Wang, Fink, & Cai, 2008), and thus it could stand to reason that parasocial interaction is also associated with apprehension. Thus, the three dimensions of online communication attitude of interest in this study are *self-disclosure*, *social connection,* and *apprehension*.

The foregoing studies have examined the association between online communication

attitude and traditional interpersonal uses of online communication. One might argue that we would not expect interpersonally-oriented attitudes to predict communicative behaviors and cognitions toward non-interpersonal partners. On the other hand, O'Sullivan (2000) described the conflation of interpersonal and mass communication in online spaces, terming such behavior *masspersonal* in nature. Both Facebook and Twitter only highlight this intersection even more clearly. Posts from celebrities appear alongside those of interpersonal contacts, and especially on Twitter, the means of communicating with celebrity accounts is similar to those of friends (Marwick & boyd, 2011). Thus, it could stand to reason that attitudes toward online communication may predict tendency to engage in parasocial interaction with celebrities.

Parasocial Interaction

Parasocial interaction, as established by Horton and Wohl (1956), was originally defined as a one-way social interaction between mass media users and figures portrayed in the media. However, the modern use of parasocial interaction extends the idea of a social relationship being established, in which the mass media user begins to believe that the media figure has recognized their efforts to interact and thus responds (Horton & Wohl, 1956). However, the mass media user tends to interpret this as a potential social relationship, whereas the media figure does not recognize that a proper relationship has been established. According to a survey conducted by Rubin and McHugh (1987), users were found to value parasocial interaction the most when deciding whether or not to establish contact with media figures. Currently, little to no research has been done on parasocial interaction within the context of online communication. Studying parasocial interaction in the context of online communication is important for the field of interpersonal communication because it allows scholars to examine the role media figures have on individuals via newly studied communication media. More specifically, and importantly for

celebrities and those they sponsor, I expect that parasocial interaction may predict perceptions of that celebrity's credibility.

Source Credibility

Often known as "ethos," *source credibility* addresses whether a communicator is perceived as possessing competence, sociability, character, extroversion, and composure (McCroskey, 1966). According to McCroskey and Teven (1999), *competence* refers to knowledge and education the source has in the featured area of discussion. Extending on this notion, Wilson and Sabee (2003) argued that competence is a critical variable in most communicative acts: (a) no matter the context, not all verbal and nonverbal communication can be measured to be uniformly competent, (b) personal success can be related to competence, and (c) incompetence is a part of everyday conversation and everyone displays it at some point. According to Spitzberg (2003), competence is both a tool to assess the quality of the communication and a skill that promotes better understanding of self and others. Social networking websites feature numerous status updates and information, including those from celebrities, which can be viewed as competent or incompetent. *Sociability*, which involves the act of being sociable within a group or conversation, is the second dimension looked at (McCroskey, Hamilton, & Weiner, 1974). The authors also listed *character*, which deals with the integrity and trustworthiness of the individual, in that, if the user views the individual of greater social status as trustworthy, then they will generally believe the source to be credible as well (Geraghty, 1991; McCroskey, Hamilton, & Weiner, 1974; McCroskey & Teven, 1999). The final two dimensions of credibility explored are *extroversion* and *composure*. Extroversion involves directing behaviors or interest outwards or towards other individuals. Composure is how one composes themselves in certain situations. Consequently, any information viewed as

incompetent may have a direct effect on the credibility given to the source. For example, Mazer, Murphy, and Simonds (2009) looked at teacher self-disclosure via Facebook. Findings indicated students exposed to a professor high in self-disclosure possessed increased motivation levels and had higher levels of affective learning than students who encountered a teacher who was not high in self-disclosure. Although instructors are not the same as celebrities, it nevertheless stands to reason if one were to insert a political figure into the role of the teacher in Mazer, Murphy, and Simonds (2009) study, it is reasonable to assume parasocial interaction with a celebrity might predict increased perception of that celebrity's competence.

Similar to communication competence and the idea of appropriateness and effectiveness, all parts must be present in order for credibility to be established. Based on previous research, parasocial interaction and credibility are often frequent topics of research; however, almost no research on parasocial interaction and credibility has been carried out in the context of online communication (Giles, 2002).

Based upon this historical and theoretical background, the current project aims to better understand how online communication attitude and parasocial interaction predict perceptions of celebrity credibility on social networking sites. Although Facebook and Twitter are often considered venues for interpersonal communication, they are also popular sites for receiving information and forging connections with celebrity accounts. Some of these accounts possess millions of followers. Such activity not only raises practical questions about the psychological motivations underlying such connection to celebrities, but also theoretical questions about how features of social networking sites (as a hybrid of interpersonal and mass communication; O'Sullivan, 2000) shape the nature of such pseudo-personal interactions. Using the well-established theoretical paradigm of *parasocial interaction*, the chief purpose of this project is to

examine the extent to which online communication attitudes foster such interaction and shape perceptions of media figures and celebrities' credibility. Specifically, I consider these questions across Facebook and Twitter, predicting:

RQ1: Does online communication attitude differ between those who use

Twitter versus those who use Facebook?

H1: Online communication attitude will predict parasocial interaction with a celebrity.

H2: Online communication attitude will positively predict perceptions of that celebrity's credibility.

H3: Parasocial interaction with a celebrity will positively predict perceptions of that celebrity's source credibility.

Method

Participants

Participants were recruited from communication studies courses at TCU and through posts on Facebook and Twitter. After removing participants who do not use Facebook or Twitter, the final sample contained 652 participants. However, some participants could not be included due to error, lack of completion, and lack of consent, and thus the sample size was reduced to 593 participants; additionally, removing participants who did not follow at least one celebrity on the social networking site reduced the sample size to 343 participants. Participation was completely voluntary and participants had the opportunity to withdraw from the study at any time. Some participants received course or extra credit for their participation.

Procedure

Participants were invited to complete an online survey using the Qualtrics online survey system. The questionnaire took approximately 15-20 minutes to complete. After reporting basic

demographic information, participants were asked whether they used Facebook or Twitter more frequently. Although most of these participants reported using Facebook more frequently ($n =$ 271), several used Twitter more frequently ($n = 72$). Participants who reported using neither site were thanked and dismissed from participation ($n = 13$). The remaining participants continued through the survey, completing the measures described below. Upon completion, participants were thanked for their time and given the option to print off the final page for extra course credit, if relevant.

Measures

      Online Communication Attitude. Ledbetter's (2009) Likert-type online communication attitude scale assessed three dimensions of online communication attitude relevant to the current study: (a) self-disclosure (7 items, e.g., "It is easier to disclose personal information on Facebook"), (b) social connection (6 items, e.g., "Without Facebook, my social life would be drastically different"), and (c) apprehension (8 items, e.g., "I feel awkward when communicating on Facebook"). Responses were solicited on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). In this study, the measure was modified such that Facebook or Twitter was the attitude object assessed (the original measure addressed online communication more broadly). The Cronbach's alpha for this research was .87.

      Choice of celebrity. Participants were asked how many celebrities they followed on the social networking site. Participants who indicated they did not follow any celebrities were thanked and dismissed from further participation ($n = 250$), yielding the final sample size of 343 participants. Participants were then asked to indicate which celebrity they followed. Responses were diverse and included answers such as Barack Obama, Taylor Swift, Tim Tebow, and Cornel West. Participants also indicated how frequently they saw posts from the celebrity, with

response options less than once per month (1), once per month (2), few times a month (3), once a week (4), few times a week (5), once a day (6), and several times a day (7). Final results indicate that Twitter features a mean of 5.75 and a standard deviation of 1.56, whereas facebook features a mean of 3.67 and a standard deviation of 1.70.

Parasocial Interaction. The modified 22-item Likert-type scale was originally developed by Auter and Palmgreen (2000). Now better known as the *Parasocial Audience Persona Interaction* (PAPI) scale (Rubin, Perse, & Powell, 1985), Auter and Palmgreen modified this scale and redrafted it in a way that mirrors the original Parasocial Interaction scale developed by Horton and Wohl (1956). However, Auter and Palmgreen sought to modify the scale to accurately measure current media outlets and use. The parasocial interaction scale used in this research features a five-point response format consisting of 1 (strongly disagree) to 5 (strongly agree). Items on the scale include "I have the same qualities as this celebrity" and "I'd enjoy interacting with this celebrity and my friends at the same time." Previous research has documented acceptable reliability of .84 coefficient alpha and a Cronbach's alpha of .84 (Auter & Palmgreen, 2000). For the current research, he Cronbach's alpha is .91.

Source Credibility. McCroskey, Hamilton, and Weiner (1974) developed their 15-item semantic differential scale by modifying a version of McCroskey's Source Credibility Scale (1966). The instrument features a 7-point response format and assesses five dimensions of credibility: sociability, character, extroversion, competence, and composure. Several items included on the scale are "Good natured to irritable," "timid to bold" and "expert to inexpert."

Previous research has documented acceptable reliability of .80 for Composure, .84 for Competence, and .86 for Sociability (McCroskey, Jenson, and Valencia, 1973). In McCroskey et al.'s (1974) modification, the scale featured a reliability range of .79 to .96 and a range alpha of

.80 to .94. In terms of validity, McCroskey et al. (1974) found that interaction behavior is a

predictor of each of the five credibility dimensions. The Cronbach's alpha for this research was

.87.

Results

Research Question 1: Comparing Facebook and Twitter Users

The first research question asked whether Facebook users differ in online communication

attitude as compared to Twitter users. A series of three independent-samples *t*-tests (one for each

of the online communication attitude dimensions investigated in this study) evaluated this

research question. For *apprehension*, a significant difference emerged between groups, such that

Facebook users reported higher online communication apprehension (m = 2.85, *sd* = 0.90) than

Twitter users (m = 2.37, *sd* = 0.93), *t*(108.63) = 3.94, *p* < 01. Likewise, Facebook users also

reported higher online communication *social connection* (m = 4.30, *sd* = 1.24) than Twitter users

(m = 2.88, *sd* = 1.12), *t*(341) = 8.56, *p* < .01. However, no such significant difference emerged

for *self-disclosure* between Facebook (m = 3.48, *sd* = 1.17) and Twitter users (m = 3.31, *sd* =

1.34), *t*(341) = 1.10, *p* > .05.

Although not of central interest to the research question, it is also worth noting that

Twitter users reported higher parasocial interaction with the celebrity (m = 3.46, *sd* = .64) as

compared to Facebook users (m = 3.11, *sd* = .66), *t*(341) = -3.99, *p* < .01, whereas Facebook

users reported lower posting frequency from the celebrity (m = 3.70, *sd* = 1.74) than Twitter

users (m = 5.63, *sd* = 1.61) , *t*(119.15) = -8.86, *p* < .01, and lower judgment of the celebrity's

extraversion (m = 5.61, *sd* = 1.24) in comparison to Twitter users (m = 6.03, *sd* = 1.01) , *t*(341) =

-2.87, *p* < .01.

Hypothesis 1: Predicting Parasocial Interaction

The first hypothesis predicted that online communication attitude would predict parasocial interaction with the celebrity. A hierarchical regression analysis evaluated this hypothesis, with parasocial interaction serving as the dependent variable. The regression analysis was conducted in three steps, with the first two steps controlling for potential confounding variables. The first step of the analysis used a dummy code for participant group (Facebook = 0, Twitter = 1) to control for the chosen social networking site, and this step accounted for a modest, yet significant, amount of variance, $\Delta R^2 = .045$, $F(1,341) = 15.89$, $p < .01$, with the dummy code serving as a positive predictor, $B = .35$, $\beta = .21$, $p < .01$. Thus, Twitter users reported a higher level of parasocial interaction with the celebrity than did Facebook users, as reported in the independent-samples t-tests above. The second step further controlled for the celebrity's posting frequency ($B = .10$, $\beta = .27$, $p < .01$), with this step also producing a significant increase in variance accounted for, $\Delta R^2 = .061$, $F(1,340) = 23.33$, $p < .01$. In total, the second step explained 10.6% of the variance in parasocial interaction. The third and final step entered the three dimensions of online communication attitude as predictors. Only the *self-disclosure* dimension emerged as a significant (positive) predictor, $B = 0.09$, $\beta = .17$, $p < .01$ and explained an additional 6% of the variance, $\Delta R^2 = .06$, $F(3,337) = 8.12$, $p < .01$. *Apprehension* obtained an insignificant finding of $B = 0.06$, $\beta = .08$, $p > .05$. *Social connection* was also non-significant for hypothesis one, $B = 0.06$, $\beta = .11$, $p > .05$. The overall variance explained for the regression analysis was 16.6%, with results providing partial support for H_1.

Hypotheses 2 and 3: Predicting Source Credibility

The second and third hypotheses predicted that online communication attitude and parasocial interaction, respectively, would predict perception of the celebrity's credibility. These hypotheses were addressed via five separate regression analyses (one for each of the five

dimensions of credibility, i.e., sociability, extraversion, competence, composure, and character;

McCroskey, Hamilton, & Weiner, 1974). Each regression was conducted in four steps: (a)

controlling for social networking site choice, (b) controlling for celebrity posting frequency, (c)

evaluating the three online communication attitude predictors (H2), and finally (d) evaluating

parasocial interaction as a predictor (H3). Table 1 presents the results of the regression analyses.

Because similar patterns were obtained across each of the five analyses, I will discuss these

results according to each hierarchical step.

Table 1

Regression Analysis Predicting Perceptions of Celebrity Source Credibility

Predictors	Sociab. $B(\beta)$	Extrav. $B(\beta)$	Compet. $B(\beta)$	Compo. $B(\beta)$	Charac. $B(\beta)$
Step 1	$\Delta R^2 = .005$	$\Delta R^2 = .02^{**}$	$\Delta R^2 = .01$	$\Delta R^2 = .002$	$\Delta R^2 = .00$
SNS	0.17 (.07)	0.42 (.15)**	0.22 (.09)	0.11 (.04)	0.12 (.05)
Step 2	$\Delta R^2 = .044^{**}$	$\Delta R^2 = .04^{**}$	$\Delta R^2 = .01^*$	$\Delta R^2 = .00$	$\Delta R^2 = .02^{**}$
SNS	-0.07 (-.02)	0.16 (.06)	0.85 (.03)	0.09 (.03)	-0.05 (-.02)
Post. Freq.	0.12 (.21)**	0.14 (.23)**	0.07 (.13)*	0.12 (.02)*	0.09 (.16)**
Step 3	$\Delta R^2 = .045^{**}$	$\Delta R^2 = .02^*$	$\Delta R^2 = .04^{**}$	$\Delta R^2 = .02$	$\Delta R^2 = .02$
SNS	-0.06 (-.02)	0.02 (.01)	-0.09 (-.03)	0.09 (.03)	-0.03 (-.01)
Post. Freq.	0.11 (.21)**	0.14 (.23)**	0.07 (.13)*	0.00 (.01)	0.08 (.14)*
Self disc.	-0.41 (-.05)	-0.01 (-.01)	0.07 (.08)	-0.06 (-.07)	-0.03 (-.03)
App.	-0.21 (-.19)**	-0.18 (-.15)**	-0.21 (-.19)**	-0.11 (-.10)	-0.12 (-.11)*
Soc. Conn.	0.07 (.09)	-0.04 (-.05)	-0.06 (-.07)	0.04 (.05)	0.05 (.07)
Step 4	$\Delta R^2 = .13^{**}$	$\Delta R^2 = .02^{**}$	$\Delta R^2 = .09^{**}$	$\Delta R^2 = .05^{**}$	$\Delta R^2 = .11^{**}$
SNS	-0.23 (-.09)	-0.06 (-.02)	-0.23 (-.09)	-0.03 (-.01)	-0.18 (-.07)
Post. Freq.	0.05 (.10)	0.11 (.19)**	0.03 (.05)	-0.03 (-.06)*	0.03 (.05)
Self disc.	-0.10 (-.12)*	-0.03 (-.04)	-0.02 (.03)	-0.10 (-.11)	-0.08 (-.09)
App.	-0.25 (-.23)**	-0.19 (-.16)**	-0.24 (-.22)**	-0.14 (-.12)*	-0.16 (-.14)**
Soc. Conn.	0.04 (.05)	-0.05 (-.07)	-0.08 (-.11)	0.02 (.02)	0.02 (.03)
Parasoc.	0.59 (.09)**	0.15 (.17)**	-0.51 (.33)**	0.39 (.25)**	0.54 (.36)**

Note: SNS = Facebook (0) & Twitter (1); Post. Freq. = posting frequency
* $p < .05$, ** $p < .01$

Step One

When predicting credibility in terms of *sociability*, the choice of social networking site is not a significant predictor. Predicting *extraversion* resulted in a significant finding ($p < .01$) and indicates the choice of social networking site as being a positive predictor. However, the choice of site is not a significant predictor for *competence* ($p > .05$). In terms of predicting *composure*, the analysis reports that there are no significant changes in the variance ($p > .05$) in any step except in Step 4 (see below). When predicting *character*, choice of social networking site does not feature a significant finding ($p > .05$).

Step Two

In the second step, the goal is to determine whether or not the posting frequency is a significant predictor of the choice of the social site. The choice of social networking website was not a significant predictor for any dimensions of source credibility ($p > .05$). However, when predicting sociability, posting frequency was a significant predictor ($p < .01$). Predicting extraversion also resulted in a significant finding ($p < .01$) and indicated posting frequency as being a positive predictor. Accordingly, posting frequency was a significant predictor for competence, but not as strong of a predictor as for sociability and extraversion ($p < .05$). In terms of predicting composure, the analysis reported that a significant change for composure occurred through post frequency ($p < .05$). Posting frequency is a positive predictor for character and featured a significant finding ($p < .01$). Overall, post frequency was a significant predictor across the board.

Step Three

As was the case in Step 2, Step 3 indicates the choice of social networking website was not a significant predictor for any dimensions of source credibility ($p > .05$). Furthermore, self-

disclosure and social connection attitudes were not significant predictors of source credibility (p > .05). Post frequency featured similar results (when compared to Step 2), except for composure, where it was not a significant predictor. Posting frequency remained a significantly positive predictor of all other credibility dimensions. Communication apprehension featured an inverse relationship with all dimensions of source credibility except for composure.

Step Four

The goal of the last step is to determine whether or not parasocial interaction is a significant predictor of credibility. The fourth step indicated that choice of social networking website was not a significant predictor for any dimensions of source credibility (p > .05). This finding is consistent with the previous two steps. Continuing with the previous pattern, social connection was not a significant predictor of source credibility (p > .05). Unlike Step 2 and 3, post frequency did not feature similar results. Post frequency was not a positive predictor for sociability (p > .05), competence (p > .05), or character (p > .05). However, post frequency was a significant predictor for extraversion ($p < .01$) and composure ($p < .05$). Communication apprehension was an inverse predictor for all five dimensions of source credibility and was a significant predictor ($p < .01$) for all dimensions (composure featured a finding of $p < .05$). Accordingly, parasocial interaction is a positive predictor for all five dimensions ($p < .01$). Furthermore, self-disclosure exhibited a significant finding when predicting sociability (B = -0.10, β = -0.12; $p < .05$), even thought it did not obtain a significant finding in any of the other steps of the linear regression. Taken overall, the pattern of findings across all steps provides partial support for H_2 and robust support for H_3.

Discussion

The current study incorporates a construct from the field of mass communication, namely *parasocial interaction*, into a perspective that accounts for online communication attitude and source credibility. Previous studies examined parasocial interaction resulting from viewing television or listening to radio and thus did not take into account other possible mediums (Auter & Palmgreen, 2000), including the use of websites. Accordingly, although the nature of the study differed slightly from pervious research into parasocial interaction (Horton & Wohl, 1956; Rubin & McHugh, 1987; O'Sullivan, 2000) this expanded perspective was well supported throughout the results. All three hypotheses were supported and the answers to the research question provide an insightful look into the differences among Twitter and Facebook users in terms of online attitudes. Overall, the results show that source credibility (McCroskey, Hamilton, & Weiner, 1974) was affected by parasocial interaction and communication apprehension. Specifically, under conditions of parasocial interaction, an inverse relationship was detected between the online communication apprehension of Twitter and Facebook users and their perceptions of celebrity credibility. Moreover, parasocial interaction was a significant predictor of source credibility when communicating online. Surprisingly, posting frequency played a larger role in the data than previously expected. Specifically, posting frequency was found to impact the medium of choice. I will further discuss each of these results by taking each component of the study in turn.

The research question (RQ1), which addressed whether online communication attitude differed between those who use Twitter and those who use Facebook, revealed an interesting difference between users. This finding indicated that in terms of *apprehension*, a significant difference emerged between Facebook and Twitter users. Facebook users reported higher online communication apprehension than Twitter users. Likewise, Facebook users also reported higher

online communication *social connection* than Twitter users. Contrary to prior assumptions, *self-disclosure* between Facebook and Twitter users did not garner a significant finding. When determining the importance of the social networking sites to be used, I looked at websites that have had a significant cultural impact within the last few years. According to Boyd and Ellison (2007), Facebook and Twitter are two platforms that fit the mold of a social networking site. Furthermore, Facebook and Twitter are two of largest and most popular websites on the Internet (CNN.com, 2011). Although Twitter started with focus on celebrities (Marwick & Boyd, 2011), Facebook began with the intention of increasing connections with one's social peers (Facebook.com). Previous research by Ledbetter (2009; Ledbetter et al., 2010) inspired the question of whether one may distinguish Facebook and Twitter users based on their online communication attitudes. Therefore, it is reasonable to assume that Twitter would promote greater parasocial interaction than Facebook. Indeed, the results of the current study indicated a significant difference between the two different platforms. Specifically, individuals who used Facebook reported higher apprehension and social connection than those who preferred using Twitter. On the other hand, parasocial interaction was more prevalent among Twitter users (m= 3.46 as compared to 3.11 for Facebook users). Thus, it is likely that these differences are related to the age of the site and intentions set out by each website. Facebook, as mentioned in the site's mission statement, aims to empower users to share and be connected (Facebook.com, 2012). Accordingly, Facebook has been around for almost ten years. On the other hand, Twitter strives to connect their users to world via tweets through different personal- and business-oriented accounts. Twitter was launched two years after Facebook, but did not become popular (in terms of traffic and user volume) until 2008-2009. Above all, Twitter and Facebook users differ with respect to their online communication attitudes.

Hypothesis one (H1) posited that online communication attitude would predict parasocial interaction with a celebrity. The results supported the hypothesis to an extent. Self-disclosure was the only dimension of online communication attitude found to be a significant predictor of parasocial interaction. Apprehension and social connection were not significant predictors. Since previous research involving parasocial interaction and online communication attitude is nonexistent, it is difficult to fully understand the meaning of this finding. However, the overall explained variance for hypothesis one was 16.6%. Though modest, this is a significant amount of variance. This suggests that the significance of H1 can provide future insights into online communication attitude and parasocial interaction. Within the overall claim, posting frequency accounted for the largest amount of the explained variance (6.1 %). Though unexpected, this finding lends itself to be significant when determining the role attitude plays in a relationship with a celebrity. Cathcart and Gumpert (1983) argued that that parasocial interaction could be considered interpersonal in nature due to an ongoing exposure of celebrities to users through mass communication. As this relates to the current study, posting frequency allows for the user of social websites to view the celebrity more often. Although these exposures do not take place as face-to-face encounters, their increased frequency may contribute to the value that social network users place on relationships with celebrities (Walther & Parks, 2002; Walther et al., 2008). In the current study, Facebook and Twitter users were more likely to follow a celebrity who posts often rather than those who post less frequently, a finding that is also consistent with previous research on Facebook (Walther et al., 2008) Consequently, the number of times a celebrity posts impacts the development of parasocial relationships.

Twitter users reported higher levels of parasocial interaction than the users of Facebook. Marwick and Boyd (2011) argue that this could be due to the inclusive nature of the site, in that,

a user can choose who they interact with and response with a celebrity it more likely (CNN.com, 2011). Because of the nature and intention of Twitter (constant, yet simple interaction), parasocial interactions with celebrities may develop more rapidly. Though previous research has not directly made this assumption, I believe this to be the case with Facebook due to the broad messages posted on celebrity Facebook accounts.

Hypothesis two (H2), which predicted that online communication attitude would positively predict perceptions of that celebrity's credibility, was partially supported. According to the regression analysis (See Table 1), *apprehension* was a significant predictor for all five dimensions of source credibility, but not parasocial interaction. A closer inspection of the instrument used to measure online communication attitude (Ledbetter, 2009), reveals a potential explanation for the results of online communication apprehension in the current research. Although items such as, "The lack of nonverbal cues (such as eye contact, facial expression, etc.) on Facebook/Twitter makes me feel uncomfortable" do not directly explain why apprehension was the strongest predictor of source credibility, they do reflect that apprehension leads to discomfort, which in turn, could inversely affect the level of the credibility (McCroskey, Jenson, & Valencia, 1973). That is, higher levels of online communication apprehension will create greater levels of discomfort. This negative mood will, in turn, diminish credibility. One explanation for this phenomenon is *affect infusion* (Forgas, 2001) or the process "... whereby affectively loaded information exerts an influence on, and becomes incorporated into, cognitive and judgmental processes, entering into a person's deliberations and eventually coloring the outcome" (p. 101). Consequently, future scholars should examine the relationship between communication apprehension and affect infusion. McCroskey, Heisel, & Richmond (2001) explain that communication apprehension reflects an aspect of temperament best described as

neurotic introversion. Moreover, neurotic introversion may contribute to the formation of interpersonal relationships because extroverts will form more relationships and introverts will form fewer relationships (Beatty, McCroskey, & Heisel, 1998). Consequently, it is also reasonable to assume that higher apprehension levels aid in the development of greater admiration of the celebrity, a finding that coincides with the results for H2. These apparent contrary findings require scholars to dig deeper into the processes involving apprehension and affect infusion. Ultimately, we need more research about temperament and the role of apprehension within online websites.

Hypothesis three (H3) stated that parasocial interaction with a celebrity would positively predict perceptions of that celebrity's source credibility. Giles (2002) observes that parasocial interaction and source credibility have not been looked at together. This study is important because it answers this call. In the current study, significant relationships were detected between parasocial interaction and all five dimensions of source credibility, in that parasocial interaction predicted all five dimensions of source credibility (See Table 1). Hypothesis three (H3), which predicted that parasocial interaction with a celebrity would positively predict perceptions of celebrity credibility, was fully supported. Furthermore, with the addition of parasocial interaction, *self-disclosure* appears to become a positive predictor of sociability (within source credibility). For example, Mazer, Murphy, and Simonds (2009) reported increased motivation and affective learning among students whose professors used high levels of self-disclosure via Facebook. In the current study, self-disclosure was a significant predictor of sociability ($p < .05$) when parasocial interaction was added to the regression equation (See Table 1). Otherwise, social connection and self-disclosure were not significant predictors of credibility.

Taken as a whole, the results support the notion that online communication attitude plays a role in a parasocial interaction. As a result, these findings should better equip scholars to understand interactions between celebrities and their fans as well as the impact parasocial interactions have on the attitudes of individuals when communicating online.

Limitations

As with any academic research, the results of the study must be interpreted within reasonable limitations of the measures and design. Even though the research garnered results that extend previous findings, the cross-sectional nature of the study mitigates against strong claims of causation. The claims made, though reasonable, are done so with data collected over a short period of time. Future researchers may look into a longitudinal study that tests the extent online communication attitude enhances a parasocial relationship. Even though the data collected extended beyond college students and featured higher participation than previously expected, the study featured mostly young, white individuals.

Future Research

Henceforward, it may be valuable for researchers to study the role communication apprehension and affect infusion has played in this research. I did not control, nor anticipate apprehension to be the dominant item in the results, and thus this confounding result to be pursued more extensively.

Given the popularity of social networking websites (Lozare, 2011; Marwick & boyd, 2011; Twitterholic.com, 2011), the amount of participants that stated they use Facebook more than Twitter was alarming because of the popularity of both websites. Of the 593 participants used, 519 stated they prefer to use Facebook to Twitter. The fact that only 74 participants chose Twitter over Facebook contradicts previous assumptions made by boyd and Ellison (2007) that

suggests that since the Twitter platform allows for unlimited amount of followers for a celebrity, more individuals will become involved and participate on Twitter. I decided that this can be attributed to the age of the websites, but further research may look into the two social websites as separate variables.

Conclusion

This investigation extends Ledbetter's (2009) online communication attitude construct, in that, the results support certain dimensions of the measure and proved to be a valuable asset to the study. Though apprehension was a confounding result, one can conclude that this adds another piece to the puzzle, in terms of research within online media. Furthermore, results indicate that parasocial interaction is not just a mass communication theory (a notion generally accepted by academia), but is more of a hybrid theory (Auter & Palmgreen, 2000), in that, it can be used in several areas of communication research. Therefore, scholars within the field of communication studies should continue to explore online communication in order to grasp a better understanding of not only parasocial interaction (as it relates to post-positivist scholarly work), but also online communication attitude and the advancement of the measure associated with it.

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Questionnaires

PLEASE NOTE: Returning this survey affirms that you have read, understand, and agree to the terms of the consent form.

DEMOGRAPHIC INFORMATION
Directions: In the following spaces, please circle or write the most appropriate response to each question. If there is a separate set of directions, please read those directions carefully and answer each question to the directions for that section of the questionnaire.

1. What is your age? _____

2. What is your biological sex (please circle one)?
    1   Male
    2   Female

What is your highest level of education?
1   Have not completed high school   5   Bachelor's degree (B.A., B.S., etc.)
2   High school diploma or equivalent   6   Master's degree (M.A., M.S., M.B.A., etc.)
3   Some college   7   Doctoral degree (Ph.D., M.D., J.D., Ed.D., etc.):
4   Associate's degree (A.A., A.S., etc.) 8   Other (please specify): _____

3. What is your ethnicity or race?
    1   White   4   Native American
    2   African American   5   Asian American
    3   Hispanic American   6   Other (please specify): _____

4. What is your marital status?
    1   Single   4   In a long-term domestic partnership
    2   Engaged   5   Divorced
    3   Married   6   Widowed
                                7   Other (please specify): _____

5. How did you hear about this survey?
    1   Through an instructor at TCU
    2   Through Facebook
    3   Through Craigslist
    4   Through a posting on another website
    5   Other (please specify): _____

6. Do you have a Facebook account?
    1   Yes
    2   No

7. Do you have a Twitter account?
    1   Yes
    2   No

[Note: If the respondent answers "no" to both #6 and #7, we will thank them for their time and end the survey. If they respond "yes" to one question but not the other, we will refer to the site for which they have an account in the following directions. If they respond "yes" both questions, we will ask an additional question: "Which site do you use most often?", with response options "Facebook" and "Twitter." The survey program will then ask the participant about the site they use most. In the directions that follow, we provide the Facebook version; the Twitter version would replace "Facebook" with "Twitter."]

ONLINE COMMUNICATION ATTITUDE (Ledbetter, 2009)

Directions: The following questions ask for your opinion about communicating on Facebook. For each item, please circle the number that best represents your level of agreement using the following scale:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. Misunderstanding on Facebook can easily lead to conflict.	1	2	3	4	5	6	7
2. If I lost Facebook access, I think I would probably lose contact with many of my friends.	1	2	3	4	5	6	7
3. I feel tense and nervous when communicating on Facebook.	1	2	3	4	5	6	7
4. I would communicate less with my friends if I couldn't talk with them on Facebook.	1	2	3	4	5	6	7
5. When reading Facebook messages, it is easy to take meanings that the sender did not intend.	1	2	3	4	5	6	7
6. I feel like I can be more open when I am communicating on Facebook.	1	2	3	4	5	6	7
7. When on Facebook, I feel more comfortable disclosing personal information to a member of the opposite sex.	1	2	3	4	5	6	7
8. I cannot think clearly when I communicate on Facebook.	1	2	3	4	5	6	7
9. I feel like I can sometimes be more personal during Facebook conversations.	1	2	3	4	5	6	7
10. Sometimes people interpret Facebook communication more negatively than the message sender intended.	1	2	3	4	5	6	7
11. Without Facebook, my social life would be drastically different.	1	2	3	4	5	6	7
12. Losing Facebook access would not change my social life at all.	1	2	3	4	5	6	7
13. One thing I like about Facebook communication is	1	2	3	4	5	6	7

that I can still send someone a message when they aren't available to talk on the phone.							
14. Miscommunication occurs frequently on Facebook.	1	2	3	4	5	6	7
15. The lack of nonverbal cues (such as eye contact, facial expressions, etc.) on Facebook makes me feel uncomfortable.	1	2	3	4	5	6	7
16. My words become confused and jumbled when I try to communicate on Facebook.	1	2	3	4	5	6	7
17. It is easier to disclose personal information on Facebook.	1	2	3	4	5	6	7
18. I am afraid to voice my opinions when interacting with others on Facebook.	1	2	3	4	5	6	7
19. Facebook communication is convenient.	1	2	3	4	5	6	7
20. When communicating on Facebook, lack of feedback from the other person can lead to misunderstandings.	1	2	3	4	5	6	7
21. I feel less shy when I am communicating on Facebook.	1	2	3	4	5	6	7
22. I feel awkward when communicating on Facebook.	1	2	3	4	5	6	7
23. If I couldn't communicate on Facebook, I would feel "out of the loop" with my friends.	1	2	3	4	5	6	7
24. Facebook communication is not an important part of my social life.	1	2	3	4	5	6	7
25. I feel less nervous when sharing personal information on Facebook.	1	2	3	4	5	6	7
26. I feel apprehensive about communicating on Facebook.	1	2	3	4	5	6	7
27. When life gets busy, Facebook is a great way to communicate efficiently.	1	2	3	4	5	6	7
28. It bothers me that I cannot see people when communicating on Facebook.	1	2	3	4	5	6	7
29. I feel less embarrassed sharing personal information with another person on Facebook.	1	2	3	4	5	6	7
30. I like that some forms of Facebook communication do not require both people to be on Facebook at the same time.	1	2	3	4	5	6	7
31. I enjoy communicating on Facebook.	1	2	3	4	5	6	7

FOLLOWING CELEBRITIES ON FACEBOOK

8. How frequently do you use Facebook?
   1   Several times a day   5   A few times a month
   2   Once a day   6   Once a month
   3   A few times a week   7   Less than once per month
   4   Once a week

9. How many years have you been using Facebook on a regular basis? _____ (Years)

10. Some people use Facebook to follow celebrities (such as actors, singers, athletes, political figures, and so forth—anyone who could be considered famous). About how many celebrities are you connected to on Facebook?

    1   None   4   11-20
    2   1-5   5   21-40
    3   6-10   6   More than 40

[Note: If the participant answers "None" to question #10, we will thank them for their time and end the survey.]

Now, we would like you to think of your FAVORITE CELEBRITY that you FOLLOW ON FACEBOOK. In other words, you must subscribe to this celebrity's news feed on Facebook.

11. Who is this celebrity? _____
12. About how do you see posts from this celebrity on Facebook?
        1   Several times a day   5   A few times a month
        2   Once a day   6   Once a month
        3   A few times a week   7   Less than once per month
        4   Once a week

13. About how often do you visit this celebrity's profile on Facebook?
        1   Several times a day   5   A few times a month
        2   Once a day   6   Once a month
        3   A few times a week   7   Less than once per month
        4   Once a week

Here are several statements about this celebrity. For each statement, please indicate the number that best expresses your own feelings about this celebrity.

Strongly Disagree	Disagree	Disagree Some and Agree Some	Agree	Strongly Agree
1	2	3	4	5

1.	This celebrity reminds me of myself.	1	2	3	4	5
2.	I have the same qualities as this celebrity.	1	2	3	4	5
3.	I seem to have the same beliefs or attitudes as this celebrity.	1	2	3	4	5
4.	I have the same problems as this celebrity.	1	2	3	4	5
5.	I can imagine myself as this celebrity.	1	2	3	4	5
6.	I can identify with this celebrity.	1	2	3	4	5
7.	I would like to meet this celebrity in person.	1	2	3	4	5

8. I would follow this celebrity on another social networking site.	1	2	3	4	5
9. I enjoy trying to predict what this celebrity will do.	1	2	3	4	5
10. I hope this celebrity achieves his or her goals.	1	2	3	4	5
11. I care about what happens to this celebrity.	1	2	3	4	5
12. I like reading the posts of this celebrity.	1	2	3	4	5
13. This celebrity's interactions are similar to mine with friends.	1	2	3	4	5
14. This celebrity's interactions are similar to mine with family.	1	2	3	4	5
15. My friends are like this celebrity.	1	2	3	4	5
16. I'd enjoy interacting with this celebrity and my friends at the same time.	1	2	3	4	5
17. While reading this celebrity's Twitter feed, I feel included in his or her life.	1	2	3	4	5
18. I can relate to this celebrity's attitudes.	1	2	3	4	5
19. I wish I could handle problems as well as this celebrity.	1	2	3	4	5
20. I like the way this celebrity handles problems.	1	2	3	4	5
21. I would like to be more like this celebrity.	1	2	3	4	5
22. I usually agree with this celebrity.	1	2	3	4	5

[Source credibility scale, McCroskey, Hamilton, & Weiner, 1974]

Instructions: On the scales below, please indicate your feelings about this celebrity.

Good-natured	_____ : _____ : _____ : _____ : _____ : _____ : _____	Irritable
Timid	_____ : _____ : _____ : _____ : _____ : _____ : _____	Bold
Expert	_____ : _____ : _____ : _____ : _____ : _____ : _____	Inexpert
Poised	_____ : _____ : _____ : _____ : _____ : _____ : _____	Nervous
Dishonest	_____ : _____ : _____ : _____ : _____ : _____ : _____	Honest
Cheerful	_____ : _____ : _____ : _____ : _____ : _____ : _____	Gloomy
Verbal	_____ : _____ : _____ : _____ : _____ : _____ : _____	Quiet
Unintelligent	_____ : _____ : _____ : _____ : _____ : _____ : _____	Intelligent
Tense	_____ : _____ : _____ : _____ : _____ : _____ : _____	Relaxed
Unsympathetic	_____ : _____ : _____ : _____ : _____ : _____ : _____	Sympathetic
Unfriendly	_____ : _____ : _____ : _____ : _____ : _____ : _____	Friendly
Talkative	_____ : _____ : _____ : _____ : _____ : _____ : _____	Silent
Intellectual	_____ : _____ : _____ : _____ : _____ : _____ : _____	Narrow

Calm ____ : ____ : ____ : ____ : ____ : ____ : ____ Anxious

Good ____ : ____ : ____ : ____ : ____ : ____ : ____ Bad