

Evolutionary Theory and Reactions to Mass Media: Understanding Parasocial Attachment

Gayle S. Stever

Empire State College, Rochester, New York

Forming attachments to those people proximal to the individual was the only option prior to mass media. In an era of mass media, individuals become acquainted with media personae, expanding greatly the pool of available attachment objects. This increases the possibility of a parasocial attachment, defined as a nonreciprocated attachment to a familiar other, and from whom one derives safe haven and felt security. This paper addresses 2 questions: From an evolutionary perspective, what is the expected way that viewers should perceive and react to attractive and familiar media personae? Second, as human beings evolve socially in a mediated environment, will parasocial attachments be adaptive or will they encourage, as a result of confusion over “real” versus parasocial relationships, some measure of dysfunction? Based on data collected during participant observer ethnography within active fan groups, parasocial attachment to celebrities would be a likely outcome of repeated exposure to those celebrities in visual media. *The Media Equation* (Reeves & Nass, 1996) states that human perceptions do not differentiate between those that emanate from the real world and those that come from media, helping explain the strong feelings that some media viewers develop for personae only encountered through media. The conclusion is that attachment to celebrities and even celebrity worship itself is to be expected, rather than being an abnormal and an aberrant manifestation of human behavior. Although most case examples of parasocial attachment appeared to support positive functioning, in some cases parasocial attachments can be problematic.

Keywords: attachment, parasocial, celebrity–fan relationships, audience studies, evolutionary theory

Audience members are exposed to the images, personalities, voices, and other characteristics of media personalities on an ongoing basis such that one could be exposed to literally hundreds of people a day that one has not met in a real face-to-face setting. This exposure, characteristic of a media-saturated society, began principally with the advent of TV in the 1950s in western society. Although some mass media existed prior to that time, it was in the 1950s that visual media came into the privacy of our homes (Horton & Wohl, 1956), changing forever the available personalities that one had to consider, expanding them to include a vast number of people that would never be met in

a more traditional face-to-face environment. The result was called a parasocial relationship, a nonreciprocated relationship with a mediated personality. From that work came the idea of a parasocial attachment, the idea that one could derive from the parasocial relationship a sense of felt security and safe haven (Stever, 2013).

When considering mediated relationships, two questions arise: First **from an evolutionary perspective, what is the expected way that viewers should perceive and react to attractive and familiar media personae?** Second, **as human beings evolve socially in a mediated environment, will parasocial attachments be adaptive or will they encourage, as a result of confusion over “real” versus parasocial relationships, some measure of dysfunction?** These are very important questions and as media become more and more influential in our social world, it becomes increasingly more important to address them.

This article was published Online First March 14, 2016.

Correspondence concerning this article should be addressed to Gayle S. Stever, Empire State College, 680 Westfall Road, Rochester, NY 14618. E-mail: Gayle.stever@esc.edu

Reviewing the Literature

Attachment originally was proposed by Bowlby (1969), Ainsworth (1978), and others to describe the relationship between infants and caregivers that was characterized by both proximity seeking for the sake of felt security and safe haven, and also the resulting freedom to learn and explore that attachment affords the infant. Later, attachment theory was expanded to describe adult romantic relationships as offering the same felt security and safe haven, and resulting freedom to explore and learn in a safe social environment (Hazan & Shaver, 1987). The idea of vicarious and psychological proximity has been a part of those discussions. It is not necessary to be physically proximal to one's attachment object in order to feel a sense of safety and security from that attachment object.

Attachment theory has been expanded most recently to include the sense of felt security and freedom resulting from an attachment to a media persona (Stever, 2013). Parasocial attachment is defined as a person finding safe haven and felt security through a relationship that is with a person not known in a real life face-to-face way. It is not suggested that all parasocial relationships (PSR) involve such an attachment (Horton & Wohl, 1956). Parasocial attachment is a very specific subset of parasocial relationships. An extensive literature describing PSRs is available and the mechanisms for both parasocial interaction (PSI) and PSR have been the focus of extensive research beginning in 1956 and continuing to the present time (Giles, 2002; Hartmann & Goldhoorn, 2011; Horton & Wohl, 1956; Klimmt, Hartmann, & Schramm, 2006; Rubin & McHugh, 1987).

Although qualitative evidence of parasocial attachment has been offered in previous work (Stever, 2013), this discussion will include examples of participants who confirmed the presence in their own lives of such attachments that resulted in a sense of felt security and safe haven. Given that this is a new area of research, more work needs to be done, but early evidence supports the legitimacy of this theoretical application.

Most researchers in psychology have focused on the maladaptive nature of attachments to celebrities, talking about "celebrity worship" and suggesting that such worship is a slippery slope to mental illness (Maltby, Day, McCutcheon,

Houran, & Ashe, 2006; McCutcheon, Ashe, Houran, & Maltby, 2003). Further work characterizing those who "obsess" about celebrities as "stalkers" contributes to this sense of the media consumer who has troubling results from feeling a connection with media personae (Ferris, 2001; McCutcheon, Scott, Aruguete, & Parker, 2006).

Access to these celebrities for the average fan is limited and unrealistic, but the part of the brain that processes these messages often doesn't seem to be able to make this distinction between readily available real-life mates and less accessible potential partners from media. In the case of an attraction to a fictional partner, there is no access available at all. And yet numerous people persist in seeing these media personae as available, attainable, and even as "soul mates" as discussed in the extensive literature on celebrity worship (Maltby et al., 2006). This research has suggested that some individuals see media personalities as objects for devotion and even worship, consistently finding that about 15%–20% of any given population will show signs of intense personal celebrity worship. However, it has also been found that the 80% who do not show signs of intense personal celebrity worship are still likely to form connections and even commitments to various media personae and even fictional characters (Giles, 2002; Stever, 2011a).

Other work has pointed to the adaptive and positive aspects of fan behavior and what has been called "participatory culture" (Giles, 2010; Jenkins, 2009), recognizing that viewers want to become cocreators with media personae and want to forge connections with those who touch them in a creative way. Audience members connect with media in order to find appropriate positive role models, to find substitute attachment figures when those are lacking in real life, and to augment a personal sense of generativity (Stever, 2011b).

Mediated communication has proliferated and the influence of it has come to dominate social interaction in a very brief time frame. Visual media in the home is pinpointed to have emerged in the 1950s (Horton & Wohl, 1956), and further advances in media saturation can be chronicled from the addition of personal computers, the development of the Internet, and the eventual and most recent advent of social media. Throughout these developments in media,

more and more individuals look to mediated communication to play a larger and larger role in social relationships.

As already noted, the emphasis in previous literature in psychology has been on the “celebrity worshipper” and the dysfunction and pathology of people who fit those criteria. That evidence is not being disputed here. There are, indeed, a percentage of any groups who will show signs of various kinds of pathology that will affect the way celebrities in media are perceived. However, there has been a lack of discussion on the remaining 80% of people (Stever, 2011a), many of whom feel significant connections with media personae without any indications of pathology or social dysfunction.

Evolutionary theory suggests that human beings are hardwired to be attracted to the faces and voices of other human beings, particularly those who are familiar. In spite of some predictable individual differences, people are attracted to facial symmetry and normative features and this is a cross cultural phenomenon. Research on “direction of gaze” has supported the theory that there are aspects of gaze that are linked to rewards for a given perceiver and that eye contact with attractive individuals offers more rewards than eye contact with less attractive individuals (Fink & Penton-Voak, 2002).

The ethological attachment theory that was developed by Bowlby (1969) and expanded by Ainsworth (1978) created the foundation for our understanding of how vulnerable human infants are dependent on caregivers for survival and how those infants are born with a repertoire of behaviors and abilities that ensure the infant’s ability to attract the caregiving of available adults. A human infant will gaze longer at a human face than any other object presented to it (Umiltá, Simion, & Valenza, 1996). He or she will look longer at a correct human face than an incorrect one (Easterbrook, Kisilevsky, Muir, & Laplante, 1999), and will prefer the face and voice of the mother to other faces and voices (Blehar, Lieberman, & Ainsworth, 1977; DeCasper & Fifer, 1980; Muir, Humphrey, & Humphrey, 1994). This suggests that infants may be born already knowing things about what other human beings look like and also that those other human beings are fundamental to survival.

Success in mating for women is about procuring external resources for support (Buss & Schmitt, 1993). It is also about ensuring that

one’s offspring have good genes, health, and good fertility. Physical attractiveness cues often are evidence of the availability of desirable mates with respect to these qualities. Additionally, experiments by Dewall (2008) provide consistent evidence that both male and female perceivers attend to men who display cues of high social status, although the same thing is not true for high-status females.

Attachment theory states that we seek relationships with people who give a sense of felt security and safe haven. A primary attachment figure both in infancy and also in adulthood is desirable for providing such attachment security. In the absence of a primary attachment figure, individuals look for alternative sources of support and mass media celebrities often fulfill these roles for some individuals (De Backer, Nelissen, Vyncke, Braeckman, & McAndrew, 2007). Proximity seeking is an expected behavior when one feels an attachment to any attachment figure, and vicarious proximity seeking can substitute for the actual physical presence of the desired figure (Stever, 2013).

The Media Equation (Reeves & Nass, 1996) posits that human perceptions do not differentiate between those that emanate from the real world and those that come from media. Restak (1991) has made a similar proposal. The human brain processes reality in a way that does not easily differentiate between face-to-face and mediated events. Grabe (2012) further proposed that “the human brain’s treatment of media and physical worlds as similar (is) state-of-the-art adaptation instead of the evolutionary dawdle that the media equation assumes (p. 362).” She further asks “What existing or anticipated environmental need might compel human adaptation for the ability to separate media from physical reality (p. 366)?” Or, more simply stated, humans process media as if it were real and what problem is that, really, in the long run?

Grabe (2012) further stated that “The minds and bodies of contemporary humans treat the physical and mediated worlds, in large part, as if they are equally real . . . the human brain automatically mobilizes cognitive resources to attend to this . . .” (p. 369). Although most applications of this principle (Restak, 1991) are directed toward the processing of stressors, violence, or negative images, there is no reason to suppose that social messages would not also be processed as if real even if they are positive.

The human psyche is hard-wired to be attracted to the familiar faces and voices of others, particularly attractive others. Women, in particular, are attracted to high-status others who show evidence of lucrative resources (Buss, 1989, 2003) and where else in society are there more wealthy prospects than among media celebrities? The evolutionary agenda of men would make them less likely to be attracted to a high-status media figure, but for women, the attractive male celebrity offers much and even sharing the attention of such a person makes evolutionary sense. If women place a priority on security and the ability of a potential mate to provide for and protect one's progeny, many attractive media celebrities seem well suited to fit that agenda.

Methods: Participants and Procedures

The author has spent 27 years in first-person participant observer case studies, with an emphasis on observing fans interacting with celebrities in a face-to-face setting. In all studies, "fan" has been defined behaviorally with the following set of criteria being used for identifying fans (Stever, 2009a):

1. Wrote letters to celebrities;
2. Attended events where fans gathered and there was access to celebrities;
3. Were members of a fan club;
4. Extensive memorabilia collections reflected an interest in a single celebrity.

During these years of research, field notes and other records have been kept chronicling these observations in a plethora of situations. Grounded Theory analysis of many of these documents has been conducted and other raters have been used to analyze some of these data (Stever, 1994). Extensive observation has been conducted at science fiction and fantasy conventions (over 100 of such conventions), with observations taking place in autograph lines, and other "meet and greet" situations. Additionally, concerts for Michael Jackson, Madonna, Janet Jackson, Paul McCartney, Celine Dion, Michael Buble, Josh Groban, and others have been attended in addition to special events where celebrities have been present, including TV tapings, charity events, daytime talk shows, and other such events.

Assessment of fans who have shown evidence of attachment to celebrities, in some cases, has been made based on observations over a period of years. For example, fans interviewed in 1988 to 1992 on the Michael Jackson *Bad and Dangerous* tours were reencountered in 2009 just after his death and follow-up observations made after a period of 20 years in some cases were available. Ten fans were in this sample of previously interviewed cases who contacted the researcher upon the death of Jackson and were available for interviews. In like manner, *Star Trek* fans met in 1993 at the beginning of the *Star Trek: Deep Space Nine* program were followed over a period of more than 20 years with dozens of individuals being a part of the subset of fans for whom longitudinal observations were available. Josh Groban fans were interviewed and observed over a period of years beginning in 2005 and extending beyond 2015. In each case, confidential field notes were part of the data being considered for this discussion.

For further details of data collected and analyses done, see Stever (1991, 1994, 1995, 2009a, 2009b, 2011a, 2011b, 2011c, 2013).

Findings

From an evolutionary perspective, what is the expected way that viewers should perceive and react to attractive and familiar media personae? Based on the literature in evolutionary psychology, one would expect that people, regardless of the situation, would be attracted to and form attachments to familiar others whose faces and voices have become well known. Consistent with Reeves and Nass (1996), the individual fan would react to the mediated persona in much the same way that he or she would react to an in-person situation. The findings in this research are consistent with this hypothesis and the majority of fans interviewed and observed had come to react to and talk about their favorite celebrity as one might talk about a friend or friendly acquaintance.

As human beings evolve socially in a mediated environment, will such parasocial attachments be adaptive or will they encourage, as a result of confusion over "real" versus parasocial relationships, some measure of dysfunction? The findings in this area have been mixed. Overall, the largest percentage of fans observed and interviewed have shown evidence of normal lives and good functioning in every day

personal relationships. As a participant observer over a period of many years, it was possible to see long-term outcomes in many individuals and the finding that the fan attachment had disrupted or made the fan's life difficult was definitely observed in a small number of cases. However, for the vast majority of fans in Josh Groban, Michael Jackson, and *Star Trek* fandoms in particular (where the most data were collected), the fan interest in the celebrity played the role of an important friendship or a particularly interesting hobby. In some cases, it guided the philanthropic activity of the fan by connecting him or her with opportunities to support charities supported by the celebrity. For examples, see the Find Your Light Foundation of Josh Groban, or the funds raised for charities like Save the Children, The Heifer Project, Amnesty International, Doctors without Borders, and other similar causes by the *Star Trek* fans observed.

There were a few cases where the fan appeared to have foregone a real-life intimate relationship substituting a parasocial relationship. In the cases where the fan was happy with this situation, it is still the observation that no apparent dysfunction was in play. An example of fans doing this in a purposeful manner were the many cases of fans interviewed where the fan had suffered a significant loss (death or divorce of a significant other) and was not yet in a place in life where she or he was ready to have another real relationship. In these cases, the parasocial relationship served a positive role in helping the fan deal with grief and loss.

However, there were cases where the fan expressed sorrow and dissatisfaction with not having a real-life significant other and yet it appeared that having an idealized distant attachment object was preventing the fan from meeting someone in a face-to-face setting. It is in these cases where the distinction between real and mediated relationships is most important. These are the cases identified in the work on "celebrity worship" that predominate fan studies in psychology. Participant observer ethnography over a period of 25 or more years confirms that such cases exist. It is important to recognize that these cases are more the exception than the rule in organized fan groups of the type of celebrities observed in the present studies.

These studies have yielded the consistent observation that women are more likely to form personal connections with media figures and

that men are more likely to feel a connection with a story or fictional universe. Clearly this is a generalization for which exceptions would be myriad, but the fact remains that in, for example, *Star Trek* fan clubs, women are more likely to join single actor/character fan clubs while men are more likely to join fan clubs focusing on the show in its entirety and having an emphasis more on the technology and ideals of *Star Trek*. Stever (1991, 1995) found that single actor fan clubs in *Star Trek* were dominated by women and also that fan clubs of pop stars in the late 1980s and early 1990s (regardless of the gender of the pop star) were dominated by women. This is in spite of the fact that *Star Trek* conventions overall and generic *Star Trek* fan clubs have fairly equal participation between men and women. Attendees at Michael Jackson concerts in 1989 were slightly skewed (60%) toward women but the fan clubs for Michael Jackson were 85% or better female (Stever, 1994). This same pattern has held more recently for Josh Groban (Stever, 2009b, 2011b). It also held in 1990 for the Madonna *Blonde Ambition* tour for which six concerts in four different cities were sampled (Stever, 1991, 1994) as well as for the Janet Jackson *Rhythm Nation* tour, also in 1990. Although more data on this phenomenon is needed to draw firm conclusions, preliminary observations over a period of two decades have found this as a consistent pattern (Stever, 2011c).

Women and men who had shown signs of serious attraction and commitment to Michael Jackson as evidenced by attending multiple concerts, traveling some distance to concerts, and pursuing an encounter with Jackson were later observed to have gone on with their lives and were able to be successful with their careers and families. Of the 10 fans specifically reinterviewed in 2009, all of them had gone on to successful careers, and productive lives.

In the same manner, fans encountered in *Star Trek* fandom beginning in 1993 were followed over a period of more than 20 years and those fans, at multiple points of encounter, were engaged in normal career and family life activities that at the very least gave the appearance that the fan attachment had not disrupted the fan's ability to pursue normal relationships and activities. These were not just casual *Star Trek* fans, but rather were committed fans who joined fan clubs, attended multiple conventions and other

fan events, and traveled significant distances to pursue their fan interest.

Josh Groban fans interviewed and surveyed beginning in 2005 up to the present time followed the same pattern with the largest percentage of participants showing consistent evidence that their lives were proceeding in a normal fashion with respect to both career and personal life goals being met, in spite of a focused commitment to see Groban in concert, meet him in person, and socialize with others within the fan network. Indeed, one's presence in "Grobania" was understood within the fandom to represent the shared commitment of fans to pursue these goals of hearing Groban in live settings and meet him wherever and whenever possible. Meeting with other fans who shared those goals was an implicit part of this social network. Significant lifelong friendships were observed to have formed among fans in this network, many of whom lived significant distances from one another, for example, Japan, Australia, Europe, and Canada and throughout the United States.

Taking individual cases, one fan of a prominent superstar indicated that his music got her through chemotherapy during Stage IV cancer, with proximity seeking to this music during chemotherapy being identified as the stabilizing factor. Fans of an individual actor from *Star Trek* met him numerous times over a period of more than 20 years and on each encounter were greeted by the actor as familiar and valued acquaintances. In fact, this was observed to be true for more than half a dozen individual *Star Trek* actors. Multiple observations of prominent celebrity Josh Groban meeting with fans showed that many individual fans were known by him and, again, appeared to be valued acquaintances of the singer. This extension of the parasocial relationship into the social realm still meant that, at best, the celebrity became a friendly acquaintance without the probable expectation of anything more in any but the rarest cases. Most of these relationships, with a small number of exceptions, were still carried out principally through media rather than face-to-face.

Discussion and Conclusions

Attachment to media figures is predictable and to be expected based on evolutionary theory and the findings presented in this paper. These statements are in contrast to the common belief

that such an attraction is abnormal. Rather than seeing this tendency to feel a connection to familiar media personae as dysfunctional or potentially pathological, forming such connections could be a natural outgrowth of the evolutionary mandate to become connected to the familiar faces, voices, and personalities of other humans with whom there has been repeated and consistent exposure. Such behavior in human beings is adaptive and insures safety and procreation (Buss, 2003). Stated simply, if a viewer watches the same TV program or consumes the same images on the Internet on a consistent basis, it would follow that this viewer should and probably will develop feelings of sympathy, connection, and even attachment with and to the personae who inhabit such programs. Attachment is not a given, but it is a distinct possibility, as is also the case with any other kind of relationship.

In the case of the media fan who has no mental illness and is functioning normally, there is a cognitive recognition that there is not likely to be a real life face-to-face relationship as a result of this attraction. However, the same fan might say things like "I know this isn't realistic but I still love him. . . ." Although able to cognitively process one's attraction to a celebrity as not reality driven, the heart often is not in synch with this understanding and the emotional processing of attraction can supersede the cognitive processing with undesirable outcomes for the viewer who is destined to be disappointed in all but the rarest of cases, particularly if the fan invests all of her emotional energy on the celebrity relationship at the expense of potential relationships in real life. This last point addresses primarily the fans who get caught up in "celebrity worship" (the 15%–20% already mentioned). It is for those people that an adaptive response to process media differently from face-to-face encounters may be important.

It should be noted that the larger percentage of fans encountered in the previously cited research did not have this problem. Many fans held realistic ideas about their attraction to various celebrities and, in their real lives, had positive close relationships. The point here is to note the potential for a mis-direction of resources and a resulting problem for the fan, suggesting that Grabe's (2012) idea that it doesn't really matter if media and reality are processed as the same is flawed in this kind of

situation. It may not matter that the tornado watched on TV is processed emotionally as if it were real and perceptually invites a “fight or flight” response, but if the attractive other on TV is misunderstood as being accessible when he or she is not, this can have serious consequences for the viewer who has allowed his or her brain (and heart) to react in the way evolution had programmed it to react.

This article sought to connect evolutionary theory with research on parasocial theory, showing that reacting to media personalities in the same fashion as one would react to persons met in face-to-face situations should be expected given the supporting evidence for *The Media Equation* (Grabe, 2012; Reeves & Nass, 1996). In a large percentage of cases of relationships between fans and celebrities, fans were well able to process the relationships for what they were, a case of affectionate acquaintanceship between a celebrity and his or her supporters and followers. Evidence exists that in 15% to 20% of cases, celebrity worship is evident and the viewer perceives the celebrity as his or her “soul mate.” Given the way persons process media as if it were real, this should not be surprising. For those persons, learning to adapt to the different kinds of messages, mediated versus face-to-face, appears to be a necessary ability. More research is needed to understand this situation and discern ways to assist the person for whom the parasocial relationship has become a difficult exercise in frustration.

This research has focused on celebrities who are positive social role models. Findings could be very different for celebrity role models who are not positive influences. Additionally, this work has focused primarily on entertainers, musicians, and actors. Looking at other types of celebrities, for example, sports stars or politicians, would be an important way to further understanding of these concepts.

References

- Ainsworth, M. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Blehar, M., Lieberman, A., & Ainsworth, M. (1977). Early face-to-face interaction and its relation to later infant-mother attachment. *Child Development*, 48, 182–194. <http://dx.doi.org/10.2307/1128897>
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. London, UK: Hogarth.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1–49. <http://dx.doi.org/10.1017/S0140525X00023992>
- Buss, D. (2003). *The evolution of desire*. New York, NY: Basic Books.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100, 204–232. <http://dx.doi.org/10.1037/0033-295X.100.2.204>
- De Backer, C. J., Nelissen, M., Vyncke, P., Braeckman, J., & McAndrew, F. T. (2007). Celebrities: From teachers to friends: A test of two hypotheses on the adaptiveness of celebrity gossip. *Human Nature*, 18, 334–354. <http://dx.doi.org/10.1007/s12110-007-9023-z>
- DeCasper, A. J., & Fifer, W. P. (1980). Of human bonding: Newborns prefer their mothers' voices. *Science*, 208, 1174–1176. <http://dx.doi.org/10.1126/science.7375928>
- Dewall, C. N. (2008). High status men (but not women) capture the eye of the beholder. *Evolutionary Psychology*, 6, 328–341.
- Easterbrook, M. A., Kisilevsky, B. S., Muir, D. W., & Laplante, D. P. (1999). Newborns discriminate schematic faces from scrambled faces. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, 53, 231–241. <http://dx.doi.org/10.1037/h0087312>
- Ferris, K. O. (2001). Through a glass, darkly: The dynamics of fan-celebrity encounters. *Symbolic Interaction*, 24, 25–47. <http://dx.doi.org/10.1525/si.2001.24.1.25>
- Fink, B., & Penton-Voak, I. (2002). Evolutionary psychology of facial attractiveness. *Current Directions in Psychological Science*, 11, 154–158. <http://dx.doi.org/10.1111/1467-8721.00190>
- Giles, D. (2002). Parasocial interaction: A review of the literature and a model for future research. *Media Psychology*, 4, 279–305. http://dx.doi.org/10.1207/S1532785XMEP0403_04
- Giles, D. (2010). *Psychology of the media*. New York, NY: Palgrave Macmillan.
- Grabe, M. E. (2012). News as reality-inducing, survival relevant, and gender-specific stimuli. In S. C. Roberts (Ed.), *Applied evolutionary psychology* (pp. 361–377). New York, NY: Oxford University Press.
- Hartmann, T., & Goldhoorn, C. (2011). Horton & Wohl revisited: Exploring viewer's experience of parasocial interaction. *Journal of Communication*, 61, 1104–1121. <http://dx.doi.org/10.1111/j.1460-2466.2011.01595.x>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of*

- Personality and Social Psychology*, 52, 511–524. <http://dx.doi.org/10.1037/0022-3514.52.3.511>
- Horton, D., & Wohl, R. R. (1956). Mass communication and para-social interaction; observations on intimacy at a distance. *Psychiatry: Journal for the Study of Interpersonal Processes*, 19, 215–229.
- Jenkins, H. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. Boston, MA: MIT Press.
- Klimmt, C., Hartmann, T., & Schramm, H. (2006). Parasocial interactions and relationships. In J. Bryant & P. Vorderer (Eds.), *Psychology of Entertainment*. New York, NY: Routledge.
- Maltby, J., Day, L., McCutcheon, L. E., Houran, J., & Ashe, D. D. (2006). Extreme celebrity worship, fantasy proneness and dissociation: Developing the measurement and understanding of celebrity worship within a clinical personality context. *Personality and Individual Differences*, 40, 273–283. <http://dx.doi.org/10.1016/j.paid.2005.07.004>
- McCutcheon, L. E., Ashe, D. D., Houran, J., & Maltby, J. (2003). A cognitive profile of individuals who tend to worship celebrities. *The Journal of Psychology: Interdisciplinary and Applied*, 137, 309–322. <http://dx.doi.org/10.1080/00223980309600616>
- McCutcheon, L. E., Scott, V. B. Jr, Aruguete, M. S., & Parker, J. (2006). Exploring the Link between attachment and the inclination to obsess about or stalk celebrities. *North American Journal of Psychology*, 8, 289–300.
- Muir, D. W., Humphrey, D. E., & Humphrey, G. K. (1994). Pattern and space perception in young infants. *Spatial Vision*, 8, 141–165. <http://dx.doi.org/10.1163/156856894X00288>
- Reeves, B., & Nass, C. (1996). *The media equation: How people treat computers, television and new media like real people and places*. Stanford, CA: Cambridge University Press.
- Restak, R. (1991). *The brain has a mind of its own*. New York, NY: Crown Trade Paperbacks.
- Rubin, R. B., & McHugh, M. P. (1987). Development of parasocial interaction relationships. *Journal of Broadcasting & Electronic Media*, 31, 279–292. <http://dx.doi.org/10.1080/08838158709386664>
- Stever, G. S. (1991). Imaginary social relationships and personality correlates. *Journal of Psychological Type*, 21, 68–76.
- Stever, G. S. (1994). *Parasocial attachments: Motivational antecedents*. (Doctoral dissertation, Arizona State University, Tempe, AZ).
- Stever, G. S. (1995). Gender by type interaction effects in mass media subcultures. *Journal of Psychological Type*, 32, 3–12.
- Stever, G. S. (2009a). Parasocial and social interaction with celebrities: Classification of media fans. *Journal of Media Psychology*, 14, 1–39.
- Stever, G. S. (2009b). Fan/Celebrity symbiotic social relationships: A participant-observer ethnography of fan clubs. *International Communications Association: Theme: Keywords in Communication*, May 22–26, 2009, Chicago, IL.
- Stever, G. S. (2011a). Fan behavior and lifespan development theory: Explaining para-social and social attachment to celebrities. *Journal of Adult Development*, 18, 1–7.
- Stever, G. S. (2011b). Celebrity worship: Critiquing a construct. *Journal of Applied Social Psychology*, 41, 1356–1370.
- Stever, G. S. (2011c). 1989 vs. 2009: A comparative analysis of music superstars Michael Jackson and Josh Groban, and their fans. *Journal of Media Psychology*, 16, 1–30.
- Stever, G. S. (2013). Mediated vs. parasocial relationships: An attachment perspective. *Journal of Media Psychology*, 17, 1–31.
- Umiltá, C., Simion, F., & Valenza, E. (1996). New-born's preference for faces. *European Psychologist*, 1, 200–205. <http://dx.doi.org/10.1027/1016-9040.1.3.200>

Received June 2, 2014

Revision received February 1, 2016

Accepted February 11, 2016 ■