The Temporal Stability of the Tendency to Worship Celebrities

James Griffith\textsuperscript{1}, Mara Aruguete\textsuperscript{2}, Jeanne Edman\textsuperscript{3}, Thomas Green\textsuperscript{4} and Lynn McCutcheon\textsuperscript{5}

Abstract
This study examined the test–retest and internal reliability of a scale used to measure celebrity worship. We administered the Celebrity Attitude Scale (CAS) and several related items on two different occasions approximately 3 months apart to 248 participants from three universities and one college. We hypothesized that attitudes about celebrities would remain fairly stable over time. Results confirmed the hypothesis and were discussed in relation to previous research in which the CAS was used.

Keywords
celebrity attitudes, celebrity worship, test–retest, reliability, absorption-addiction model

There is a growing body of research on persons who are fascinated with celebrities—persons who have been termed celebrity worshipers. McCutcheon, Lange, and Houran (2002) developed the 23-item Celebrity Attitude Scale (CAS) in an effort to facilitate that line of research. This scale comprises three subscales, and has been shown to have very good internal reliability and validity across several studies. More than two dozen studies using the CAS have appeared in print, and we now have a growing body of knowledge about those who greatly admire celebrities.

However, there is still much that we do not know about celebrity worshipers. For example, we do not know much about the stability of attitudes about celebrities over time. To date, Cronbach’s alpha has been used exclusively to measure the reliability of the CAS. According to a book that summarized the first few years of research on the CAS, alpha reliability coefficients for the total scale ranged from .84 to .94 (McCutcheon, Maltby, Houran, & Ashe, 2004). Two recent studies revealed total Cronbach’s alphas of .92 and .94, respectively (Aruguete, Griffith, Edman, Green, & McCutcheon, 2012; Wong, Goodboy, Murtagh, Hackney, & McCutcheon, 2010).

Anecdotal accounts of persons who “worship” the same celebrities for long periods of time (Caughey, 1978; Horton & Wohl, 1956) suggest that celebrity worship is quite stable—that some worshipers do tend to focus their adoration on a particular celebrity for months if not years. One study examined the content of inappropriate letters mailed to Hollywood celebrities. A large subset of the entire sample originated with persons who had sent more than one letter to the same celebrity. The authors found that the median interval between the first and last mailing was 11 months, suggesting that many of the letter-writers were loyal to “their” celebrities for a year or more (Dietz et al., 1991). It is clear from both the anecdotal accounts and the letters analyzed in the Dietz study that many of these celebrity worshipers were seriously disturbed, leaving open the question of the temporal stability of celebrity “worship” in a more normal population.

The absorption-addiction model of celebrity worship is a theoretical outgrowth of an application of both Rasch scaling and traditional factor analyses applied to the CAS (McCutcheon, Maltby, et al., 2004). The model holds that people become interested in the lives of celebrities because they are frequently good looking, the media constantly emphasize the importance of celebrity news, their stories are entertaining, and the stories provide a basis for social interaction with other worshipers. Most worshipers never go beyond this entertainment-social level, which has been linked to extraversion (Maltby et al., 2004; Maltby, Houran, & McCutcheon, 2003). However, some persons become increasingly absorbed in the personal lives of their favorite

\textsuperscript{1}Shippensburg State University, Shippensburg, PA, USA
\textsuperscript{2}Lincoln University of Missouri, Jefferson City, MO, USA
\textsuperscript{3}Consumnes River College, Sacramento, CA, USA
\textsuperscript{4}Elon University, Elon, NC, USA
\textsuperscript{5}North American Journal of Psychology, Winter Garden, FL, USA

Corresponding Author:
Mara Aruguete, Lincoln University of Missouri, 820 Chestnut St., 310 FH, Jefferson City, MO 65102-0029, USA.
Email: aruguetem@lincolnu.edu
celebrity to the point that it interferes with their own lives. This second level, called intense-personal, has been linked to neuroticism (Maltby et al., 2003) and poor mental health (Maltby et al., 2004). The third level, labeled borderline-pathological, consists of a small minority of persons who are tempted to perform “compulsive” acts that are clearly not in the best interest of the “worshiper.” Borderline-pathological tendencies have been found to be related to some aspects of narcissism (Ashe, Maltby, & McCutcheon, 2005) and psychoticism (Maltby et al., 2004; Maltby et al., 2003).

Based on the small amount of anecdotal data about the temporal stability of attitudes toward celebrities, the pervasive attempts of the media to promote the adoration of celebrities, and the absorption-addiction model, we hypothesized that CAS-Total scores would remain stable over a 3-month interval, and CAS subscale scores would also be positively correlated over the same time frame. We further predicted that when asked to name their favorite celebrity, there would be a high percentage of participants who chose the same celebrity across time, and for those who did not, there would be a strong tendency to choose another celebrity from the same category (e.g., choosing an athlete the first time and a different athlete the second time). We hypothesized that those who scored high on the Intense-Personal and Borderline-Pathological subscales at Time 1 would be especially likely to choose the same favorite celebrity the second time, based on the absorptive and addictive qualities associated with these two levels. We also predicted that the strength of feelings about participants’ favorite celebrities and their interest in celebrities in general would remain stable over time.

**Method**

**Participants**

**Test.** The initial sample consisted of 279 college students (189 females, 90 males) from four institutions of higher learning, ranging in age from 17 to 53 years ($M = 20.9, SD = 4.3$). The institutions are located in California, Missouri, North Carolina, and Pennsylvania. The majority of participants reported being Caucasian (61%), the second most frequent category was African American (11%) and Hispanic/Latino (11%), followed by Asian American (10%) and other (5%). Two percent of the participants did not indicate their ethnicity.

**Retest.** Because some participants dropped out or elected not to participate a second time, we retained 248 (88.9%) of the original participants. The retest sample consisted of a subset of 167 females and 81 males, ranging in age from 17 to 53 years ($M = 20.9, SD = 4.2$). The majority of participants reported being Caucasian (64%); the second most frequent category was Asian American (11%), followed by African American (10%) and Hispanic/Latino (10%), and other (4%). One percent of the participants did not indicate their ethnicity.

**Measures**

We administered the 23-item version of the CAS on both the test and retest occasions (with approximately a 3-month interval between testing periods). The response format for the CAS is a 5-point scale with anchor points being “strongly agree” equal to 5 and “strongly disagree” equal to 1. The scale measures three aspects of celebrity worship that were identified through factor analysis (McCutcheon, Maltby, et al., 2004). These three subscales address Entertainment-Social (10 items; for example, “My friends and I like to discuss what my favorite celebrity has done”), Intense-Personal (9 items; for example, “I have frequent thoughts about my favorite celebrity, even when I don’t want to”), and Borderline-Pathological (4 items; for example, “I often feel compelled to learn the personal habits of my favorite celebrity”) forms of celebrity worship.

In addition, participants were asked to name their favorite celebrity, indicate how strongly they feel about this celebrity on a Likert-type scale from 1 (very weak) to 7 (very strong), and rate their interest in celebrities generally on a Likert-type scale from 1 (very weak interest) to 7 (very strong interest). Thirteen categories of celebrities were listed (acting, author, artist, medicine, modeling, music, news, politics, religion, royalty, radio or TV talk show, science, and sports). Participants were asked to circle one or more of these categories to describe why their favorite celebrity is famous. These same items, along with the CAS, appeared on the questionnaire on both the test and retest occasions.

**Procedure**

**Test.** Students were recruited in the early part of fall 2012, and late in the same term. Students reported to designated classrooms where they participated in groups ranging in size from 13 to 40. The experimenter handed each participant a survey that contained demographic items, the CAS, and the additional celebrity-related items described above. These were a part of a larger study of celebrity worship described in detail elsewhere (Aruguete et al., 2012). Experimenters remained in the room to answer questions and to check to make sure all items were answered before surveys were handed back to the experimenter. Participants were debriefed after all of them had completed the study at each institutional site.

**Retest.** The procedure was essentially the same except that the additional measures used in early fall in the test situation were not administered. Instead, a different measure was given as part of another study not described here. Some of the original participants noticed that the celebrity-related items were the same ones they had responded to 3 months earlier. If they commented on this to the experimenter, they were given a neutral reply, such as “That’s all right. Just give the answer that you feel is best.”
Results

The analysis plan called for an examination of descriptive statistics, split-half reliability, test–retest reliabilities, internal consistency reliabilities, and predictive validity. Descriptive statistics were calculated for the measures and can be seen in Table 1. Means and standard deviations remained stable between the two testing intervals. Paired t-tests were conducted on the CAS-Total and three subscales along with the two questions pertaining to their favorite celebrity and general interest in celebrities, between intervals. The only observed difference across time was a decrease in how strongly participants felt about their favorite celebrity, t(176) = 3.13, p < .01.

A series of tests were conducted to examine different aspects of reliability. First, test–retest coefficients along with correlations between test and retest scores were calculated and are presented in Table 2. The diagonal represents the test–retest correlations and range from .68 to .76 for the CAS-Total and subscales suggesting strong test–retest reliabilities. Second, the stability of Cronbach’s alpha was also of interest, and those data appear in Table 3. As predicted, the reliabilities for the CAS-Total and subscales remained consistent over time.

Predictive validity was assessed by determining whether two subscale scores were related to retaining one’s favorite celebrity. Overall, the percentage of participants who chose the same favorite celebrity over time was 68.2%. Among those who scored higher than the mean on the CAS Intense-Personal (i.e., 15.5) and Borderline-Pathological (i.e., 7.7) subscales at Time 1, the percentage who chose the same favorite celebrity at Time 2 was 79.2%, and for those below those averages, 63.9% chose the same favorite celebrity. That difference was significant, $\chi^2(1) = 4.02, p < .05$, confirming our hypothesis that the CAS Intense-Personal and Borderline-Pathological subscales were predictive of selecting the same celebrity over time. Of those who chose a different celebrity, the percentage of those who selected a favorite celebrity from the same category was 81.8%.

Discussion

The descriptive statistics seen in Table 1 are consistent with CAS scores obtained previously from American participants (McCutcheon, Aruguete, Scott, & Von Waldner, 2004; McCutcheon & Maltby, 2002; McCutcheon, Scott, Aruguete, & Parker, 2006; Wong et al., 2010). Coefficient alphas shown in Table 3 are also consistent with alphas obtained in previous studies (McCutcheon & Maltby, 2002; McCutcheon, Maltby, et al., 2004; McCutcheon et al., 2006). Relatively low alphas for CAS Borderline Pathological stem from the fact that there are only four items comprising this subscale.

We hypothesized that, in general, scores on several measures of attitudes about celebrities would remain fairly stable over a period of 3 months. Results of test–retest on the CAS and its three subscales, along with additional related measures, overwhelmingly supported these related hypotheses. Specifically, responses to the CAS and CAS subscales are fairly stable constructs, as their test–retest reliabilities ranged from .68 to .76. It appears that celebrity worship is fairly resistant to change, although the media often present both positive and negative accounts of celebrities. The majority of favorite celebrities were categorized as either actors/actresses or musicians (47% and 29%, respectively). As such, it may be the case that celebrity worshipers of these types may like the fact that their favorite celebrity is famous and gets attention, regardless of whether the attention is positive or negative.

The temporal stability of the questions “How strongly do you feel about your favorite celebrity?” (.76) and “How strongly do you feel about celebrities in general?” (.82) was more than adequate. The percentage of participants who chose the same favorite celebrity over time was 68.2%. Of those who chose a different celebrity, the percentage of those who selected a favorite celebrity from the same category was 81.8%. There was a change to the question, “How strongly do you feel about your favorite celebrity?” such that the strength of that feeling decreased slightly over time. It should be noted that this may be a case of statistical rather than practical significance, since the effect size was only .053. It may be the case that some aspect of the debriefing session that occurred after the initial test caused participants to feel shameful about their interest in celebrities. This may have caused them to underestimate celebrity interest during the retest. The observed decrease does provide an opportunity to more closely examine factors associated with attitudinal change toward celebrities over time in a future investigation.

Specifically, it would be of interest to assess participants’ levels of celebrity worship, and then manipulate the amount and type of news/information about a particular celebrity or type of celebrity to determine whether that information was related to a change in celebrity worship.

The absorption-addiction model holds that those who score high on the two problematic subscales, Intense-Personal and Borderline-Pathological, have become absorbed or obsessed with their favorite celebrity. If that is true, we would expect high scorers on these subscales to be less...
inclined to adopt a new favorite celebrity over a 3-month interval, as compared with those with lower scores on these two subscales. In fact, among those who scored higher than the mean on the CAS Intense-Personal and Borderline-Pathological subscales at time one, the percentage who chose the same favorite celebrity at Time 2 was 79.2%, as compared with 63.9% for those who scored below the mean on these two subscales. This statistically significant difference lends support to the absorption-addiction model and demonstrates its predictive validity.

One limitation of the present study is that a 3-month interval may simply be too short to show much change, although it is probably long enough that participants are not merely remembering the responses they made on the first testing situation. Future research using longer test–retest intervals should clarify that issue. It seems possible that some personality traits predispose one to retain one’s favorite celebrity over lengthy periods of time. A second limitation concerns the type and amount of media attention that participants were exposed to during the study. For example, celebrity scandals cannot be controlled and the extent to which participants are exposed to this type of information was not examined. It may be the case that the nature of news about a particular celebrity may affect one’s view of that and other celebrities. Future researchers might consider including standardized, hypothetical reports of the activities of favorite celebrities in an attempt to control the information participants receive.

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**Author Biographies**

**James Griffith** was trained at Texas Christian University in applied experimental psychology. His research interests include risk-taking behaviors, program evaluation, and jury decision-making.

**Mara Aruguete** was trained at the University of California in comparative/physiological psychology. Her research interests include eating behaviors, celebrity worship, and teaching efficacy.

**Jeanne Edman** was trained in cross-cultural psychology at the University of Hawaii. She has conducted cross cultural research studies in Hawaii, Micronesia, Malaysia, and other locations around the globe.

**Thomas Green** was trained in experimental psychology with emphases in cognitive processes and quantitative methods at the University of Nebraska. His research interests include probability learning, text comprehension, mental practice effects on task performance, and attributional processes in performance outcome situations.

**Lynn McCutcheon** has authored or coauthored about 120 research articles in a variety of magazines and professional journals and has been a pioneer in research on celebrity worship. He currently serves as editor of the *North American Journal of Psychology.*