

Stacking Up With the Stars: Relative Deprivation and Excessive Admiration of Celebrities

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Abstract

The purpose of this study was to investigate whether celebrity admiration is associated with personal relative deprivation, impulsivity, and materialism. We gave the *Celebrity Attitude Scale*, the *Personal Relative Deprivation Scale*, the *MacArthur Scale of Subjective Social Status*, a subscale from the *Consideration of Future Consequences-14*, and the *Material Values Scale*, to 149 respondents recruited through Mechanical Turk. We found a weak but significant association between personal relative deprivation and celebrity attitudes. We successfully replicated earlier research showing that

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celebrity attitudes were positively correlated with material values and impulsivity. Personal relative deprivation also correlated positively with both material values and impulsivity. These findings suggest that the constructs of personal relative deprivation and celebrity attitudes appear to have much in common as both are associated with poor quality of life.

Keywords

Personal relative deprivation, celebrity attitudes, impulsivity, material values, mental health

Introduction

Research has shown some striking commonalities between the excessive admiration of celebrities and personal relative deprivation. People who admire celebrities tend to be materialistic (Green, Griffith, Aruguete, Edman, & McCutcheon, 2014; Reeves, Baker, & Truluck, 2012; Reeves, Lemons, Clements, Gountas, & Gountas, 2013), impulsive (Maltby, McCutcheon, & Lowinger, 2011; McCutcheon et al., 2014), and inclined to gamble (Lian, Huynh, McCutcheon, Aruguete, & Murtagh, in press). Depression and poor mental health are also associated with high levels of celebrity worship (Maltby et al., 2004; Maltby, Houran, & McCutcheon, 2003; Maltby, McCutcheon, Ashe, & Houran, 2001; Maltby et al., 2011). Therefore, those who worship celebrities tend to display negative affect, materialism, and impulsive behaviors.

Personal relative deprivation is a social comparison process typified by negative appraisal and subjective feelings of resentment and frustration (Mishra & Novakowski, 2016). Feelings of relative deprivation are not limited to those who are of low socioeconomic background, and low socioeconomic status (SES) does not guarantee that a person will feel relatively deprived. People make comparisons with others they believe are similar to them. Thus, it is the ranked position of their income or status within their comparison group that influences one's tendency to feel deprived (Boyce, Brown, & Moore, 2010; Callan, Kim, Gheorghiu, & Matthews, 2017; Callan, Kim, & Matthews, 2015). Similar to celebrity worship, personal relative deprivation is positively associated with gambling and impulsiveness (Callan, Ellard, Shead, & Hodgins, 2008; Callan, Shead, & Olson, 2011, 2015; Kim, Callan, Gheorghiu, & Matthews, 2016; Mishra & Meadows, 2017; Mishra & Novakowski, 2016; Zhang & Zhang, 2016). Likewise, people who feel relatively deprived tend to be materialistic (Kim et al., 2017; Zhang & Zhang, 2016). Personal relative deprivation is associated with feeling disadvantaged, which contributes to stress (Beshai, Mishra, Mishra, & Carleton, 2017; Mishra & Meadows, 2017), depression (Beshai,

Mishra, Meadows, Parmar, & Huang, 2017), and poor mental health (Callan, Kim et al., 2015; Chung et al., 2018; Gero, Kondo, Kondo, Shirai, & Kawachi, 2017; Mishra & Carleton, 2015). Therefore, people who feel personally deprived are similar to those who worship celebrities inasmuch as they tend to display negative affect, impulsiveness, and materialism.

The similarities among people who feel relatively deprived and those who excessively admire celebrities suggest a common explanation. Perhaps celebrity worship stems from dreams of attaining stardom among people who have a sense of personal deprivation. In this scenario, the deprived person may be dreaming of a get-rich-quick scheme of celebrity stardom. It is also possible that comparing oneself with wealthy celebrities may increase one's own perception of personal deprivation (since the celebrity will invariably have far greater material wealth). Finally, those high in personal relative deprivation might also feel disadvantaged in social relations, assuming that lack of material wealth and relatively low social status make it more difficult to find a desirable mate or friend. These individuals may find it easier to connect with a favorite celebrity than an "ordinary" person.

Despite the similarities in the profiles of celebrity worshippers and those high in personal relative deprivation, there are no previous studies that have attempted to determine the relationship between these two variables. There is one study that found no relationship between celebrity admiration and SES (McCutcheon, Aruguete, Jenkins, McCarley, & Yockey, 2016). However, as noted above, feelings of relative deprivation are not necessarily limited to those of low socioeconomic background, and low SES does not guarantee that a person will feel relatively deprived. Therefore, despite showing no relationship with an objective measure of SES, celebrity admiration may still show a positive relationship with personal relative deprivation.

Our study examines the relationships between celebrity worship, personal relative deprivation, impulsivity, and material values. We propose five hypotheses. First, we hypothesize that personal relative deprivation will be positively associated with celebrity attitudes. Second, we hypothesize that impulsivity will be positively associated with celebrity attitudes. Third, we predict impulsivity will be positively associated with personal relative deprivation. Fourth, we predict material values will be positively associated with celebrity attitudes. Fifth, we predict material values will be positively associated with personal relative deprivation.

Method

Participants

Participants were 72 men and 75 women (two participants declined to give their gender) between the ages of 21 and 76 years (mean age = 37.80 years, standard

deviation = 11.75). All were recruited via Amazon's Mechanical Turk (MTurk)—an online crowdsourcing platform. MTurk is commonly used by researchers in the social sciences to recruit diverse and high-quality samples of participants (see Aruguete et al., 2019; Bates & Lanza, 2013; Buhrmester, Kwang, & Gosling, 2011). Participants received US\$0.75 as remuneration. To minimize the likelihood of participants who were not seriously responding to our survey from contaminating our data analysis, we used validity checks. Specifically, we deleted data from all respondents who scored either 23 or 115 on *Celebrity Attitude Scale* (CAS)-Total (four participants), since these extreme scores have been found to be highly unlikely in the past (Griffith, Aruguete, Edman, Green, & McCutcheon, 2013; Maltby et al., 2004). We also excluded anyone who finished the entire survey in less than 150 seconds, on the grounds that they were very unlikely to have read and given serious thought to their responses. The total number of participants we excluded for these reasons was 27.

Measures

We measured Celebrity Attitudes using the 23-item version of the CAS, which has been shown to have sound psychometric properties over the course of several studies (Ashe & McCutcheon, 2001; Griffith et al., 2013; Maltby, Houran, Lange, Ashe, & McCutcheon, 2002; Maltby & McCutcheon, 2001; McCutcheon, Lange, & Houran, 2002). The response format for the CAS is a five-point scale with anchor points being “strongly agree” = 5 and “strongly disagree” = 1. The scale measures three aspects of celebrity worship that were identified through factor analysis (McCutcheon, Maltby, Houran, & Ashe, 2004). The first of the three subscales addresses the construct of *Entertainment-Social* (ES; 10 items; Cronbach alpha = .88). On this relatively benign level, people are attracted to their favorite celebrity because he or she provides entertainment and a vehicle for making contact with friends. A representative item is “My friends and I like to discuss what my favorite celebrity has done.” The *Intense-Personal* (IP) subscale (nine items; Cronbach alpha = .94) is more problematic (Maltby et al., 2003; Maltby & McCutcheon, 2001) and reveals people who have an intense attraction to their favorite celebrity. A sample item is “I have frequent thoughts about my favorite celebrity, even when I don't want to.” The third level is *Borderline Pathological* (BP; four items; Cronbach alpha = .76), the reason for which is illustrated in this sample item: “I often feel compelled to learn the habits of my favorite celebrity.” Across several studies, total CAS Cronbach alphas ranged from .84 to .94 (McCutcheon et al., 2004). Total scale Cronbach alpha in the present study was .96.

We used two measures of Personal Relative Deprivation: The *MacArthur Scale of Subjective Social Status* (MSSSS; Adler, Epel, Castellazzo, & Ickovics, 2000) and the five-item version of the *Personal Relative Deprivation*

Scale (PRDS; Callan et al., 2011). The MSSSS is a single-item scale presented as a ladder with 10 rungs. Respondents are asked to rate their own social status by selecting a rung that they think best describes their own status relative to others. A selection of “1” indicates a person who is worst off relative to others, and a selection of “10” indicates a person who is best off relative to others. Previous research has shown that the MSSSS is a better predictor of psychological functioning than objective measures of SES (Adler et al., 2000; Singh-Manoux, Marmot, & Adler, 2005).

The five-item version of the PRDS (Callan et al., 2011) has a response format of a six-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). All five items load on a single principal component. Sample items include “I feel privileged compared to other people like me” (reverse-scored) and “I feel resentful when I see how prosperous other people like me seem to be.” High scores indicate a person who feels deprived relative to similar others. The PRDS has acceptable test–retest reliability, and across several studies, Cronbach alphas ranged from .70 to .86 (Callan, Kim, Gheorghiu, & Matthews, 2017; Callan, Kim et al., 2015; Callan et al., 2011; Sim, Lim, Forde, & Cheon, 2018). Cronbach alpha for the PRDS in the present study was .72.

We measured impulsivity using the CFC-Immediate (CFC-I) subscale of the *Consideration of Future Consequences-14 Scale* (CFC; Joireman, Shaffer, Balliet, & Strathman, 2012). The CFC-I subscale consists of seven items designed to measure a tendency to place greater importance on immediate concerns than on future concerns. Sample items include “I only act to satisfy immediate concerns, figuring the future will take care of itself” and “I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.” Items are measured on a Likert-type scale anchored by “1—extremely uncharacteristic” and “7—extremely characteristic.” CFC scores have been linked to impulsive behaviors and self-control in a range of studies (Joireman, Anderson, & Strathman, 2003; Joireman, Balliet, Sprott, Spangenberg, & Schultz, 2008; Strathman, Gleischer, Boninger, & Edwards, 1994). Scores on the CFC-I subscale have been shown to be a good predictor of low self-control (Joireman et al., 2008). People concerned with immediate consequences tend to be susceptible to self-control failure. Joireman et al. (2008) reported an alpha of .84 for the CFC-I. Alpha in the present study was .92.

We measured Materialism using the short form of the *Material Values Scale* (MVS; Richins, 2004), which consists of nine items designed to measure the desire for material goods. All items are scored on a Likert-type scale ranging from “1—strongly disagree” to “7—strongly agree.” Sample items include “I like to own things that impress people” and “I’d be happier if I could afford to buy more things.” High scores indicate a person who places much value on owning material goods. Cronbach’s alpha was reported as .84 (Richins, 2004). A more recent study concluded that the short form of the MVS was both valid and reliable (Seneca, 2007). Cronbach alpha in the present study was .89.

Procedure

After obtaining institutional review board approval, we created an online survey with several different orders of presentation of the various measures to reduce the probability of a systematic order effect. Then, MTurk participants were provided with a URL link to the survey titled, "Relative Deprivation and Admiration of Celebrities." Participants read that the purpose of the study was for them to answer several questions about themselves and how they felt toward celebrities. After providing informed consent, participants completed the CAS, the PRDS, the MSSSS, the CFC-I subscale, and the MVS in counter-balanced order, in addition to basic demographic questions (e.g., age, gender). Finally, participants were debriefed and compensated for their participation.

Results

The mean scores we obtained were consistent with scores obtained with these measures in past research studies (see Table 1). For example, the MVS mean we obtained here (27.50) is very similar to an MVS mean (27.60) obtained by Green et al. (2014), and the PRDS mean we obtained (16.06) is very close to the PRDS mean (16.00) found by Kim et al. (2017, Study 1). Furthermore, we found a significant negative correlation ($-.31, p = .00$) between the two subjective SES measures, as expected, given that high scores on one suggest high SES, and low scores on the other suggest high SES. We take this to mean that participants in the present study were reasonably conscientious in completing the survey.

We predicted that celebrity attitudes would be positively correlated with Personal Relative Deprivation. This hypothesis was partially supported. Table 2 shows that scores on the MSSSS correlated significantly with the two more pathological subscales of celebrity worship (CAS-IP, $r = .16, p = .04$ and CAS-BP, $r = .17, p = .04$). On the other hand, celebrity attitudes showed small and nonsignificant correlations with the PRDS (see Table 2).

Our second hypothesis was that those who score high on impulsivity would tend to admire celebrities, especially in the more pathological scales of celebrity worship (CAS-IP and CAS-BP). Table 2 shows significant positive correlations for all three celebrity attitudes subscales with CFC-I, and that the correlations were highest on the two more pathological subscales (ES = .24, IP = .42, and BP = .38; $p = .00$ on each). Thus, Hypothesis 2 was confirmed.

Our third hypothesis, a positive correlation between impulsivity and personal relative deprivation, was also confirmed. Table 2 shows a correlation coefficient of .23 ($p = .00$) between PRDS and the CFC-I. However, the MSSSS did not show a significant association with the CFC-I (see Table 2).

Our fourth hypothesis, a significant positive correlation between scores on MVS and CAS, was confirmed. Scores on the MVS correlated positively with all three subscales of the CAS ($p = .00$ on each).

Table 1. Means (SDs), and possible range of scores for measures.

Measure	Mean (SD)	Possible range of scores
CAS-ES	31.97 (7.80)	10–50
CAS-IP	22.10 (9.39)	9–45
CAS-BP	10.88 (3.91)	4–20
CAS-Total	64.95 (19.31)	23–115
PRDS	16.06 (5.03)	5–30
CFC-I	24.53 (9.86)	7–49
MVS	27.50 (7.50)	9–45
MSSSS	5.15 (1.79)	1–10

BP: Borderline Pathological; CAS: Celebrity Attitude Scale; CFC: Consideration of Future Consequences-14; CFC-I: CFC-Immediate; ES: Entertainment-Social; IP: Intense-Personal; MSSSS: MacArthur Scale of Subjective Social Status; MVS: Material Values Scale; PRDS: Personal Relative Deprivation Scale; SD: standard deviation.

Table 2. Correlations between measures.

	1	2	3	4	5	6	7	8
1. CAS-ES	–	.70**	.75**	.90**	–.02	.24**	.31**	.15
2. CAS-IP		–	.82**	.94**	.10	.42**	.30**	.16*
3. CAS-BP			–	.90**	.10	.38**	.37**	.17*
4. CAS-Total				–	.06	.38**	.34**	.18*
5. PRDS					–	.23**	.28**	–.31**
6. CFC-I						–	.35**	.08
7. MVS							–	–.05
8. MSSSS								–

Note: BP: Borderline Pathological; CAS: Celebrity Attitude Scale; CFC: Consideration of Future Consequences-14; CFC-I: CFC-Immediate; ES: Entertainment-Social; IP: Intense-Personal; MSSSS: MacArthur Scale of Subjective Social Status; MVS: Material Values Scale; PRDS: Personal Relative Deprivation Scale.

* $p < .05$. ** $p < .01$.

Our fifth hypothesis, a positive correlation between material values and personal relative deprivation, was confirmed. Table 2 shows a correlation coefficient of .28 ($p = .00$) between the PRDS and the MVS. However, the MSSSS did not show a significant association with the MVS (see Table 2).

Multiple regression analysis was used to test whether material values, impulsivity, and personal relative deprivation significantly predicted celebrity admiration. The MVS, the CFC-I subscale, and the MSSSS were entered as independent variables since these had previously shown significant associations with celebrity attitudes. The three predictors explained 22.1% of the variance ($R = .47$, $R^2 = .221$, $F(3, 145) = 13.73$, $p = .00$) in celebrity attitudes.

Impulsivity (CFC-I) significantly predicted celebrity interest ($\beta = .28, p = .00$), as did material values (MVS; $\beta = .26, p = .00$), and personal relative deprivation ($\beta = .17, p = .03$).

Discussion

We hypothesized that celebrity worship might be more common among people who feel relatively deprived. We found a weak but significant association between celebrity attitudes and personal relative deprivation. However, we found stronger associations between celebrity attitudes and impulsivity and materialism. Personal relative deprivation was also associated with these factors, suggesting that personal relative deprivation and celebrity attitudes share construct similarities.

A major purpose of the present study was to determine whether personal relative deprivation is related to celebrity admiration. In a previous study, an objective measure of SES did not correlate significantly with celebrity attitudes (highest coefficient = .06; McCutcheon et al., 2016). The authors of that study suggested that a measure of personal relative deprivation might yield a different result. The two personal relative deprivation measures used in the present study (MSSSS and PRDS) are both subjective measures of SES, and both have been shown to predict pathological behavior as well as or better than objective measures of SES (Adler et al., 2000; Beshai, Mishra, Meadows et al., 2017; Callan, Kim et al., 2015; Chung et al., 2018; Gero et al., 2017; Mishra & Carleton, 2015; Singh-Manoux et al., 2005). We found that one of these measures of personal deprivation (the MSSSS) was associated with celebrity attitudes. On two of the three celebrity attitude subscale scores, the correlations were significant in the positive direction. However, while significant, both correlation coefficients were relatively weak (.16 and .17). Given the elevated possibility of a Type 1 error due to a fairly large number of correlations performed, it might be best to conclude that relative personal deprivation is either unrelated to one's attraction to a favorite celebrity or weakly related at best.

Our second hypothesis was that those who score high on impulsivity would tend to score high on celebrity attitudes, especially on the more pathological subscales of the Celebrity Attitudes Scale (CAS-IP and CAS-BP). The hypothesis was confirmed, replicating and extending results obtained earlier by McCutcheon et al. (2014) and Maltby et al. (2011).

We also hypothesized and found a positive correlation between scores on impulsivity and scores on the PRDS. Previous research has shown that impulsive people tend to score high on measures of personal relative deprivation (Callan et al., 2011; Mishra & Novakowski, 2016). Our results lend support to the previous research.

Why do impulsive people tend to score high on measures of personal relative deprivation? Risk-sensitivity theory predicts that people will change

from risk-aversion to risk-preference under conditions of need, where there is a difference between what one has and what one wishes to obtain. People who feel relatively deprived may be prompted to engage in a variety of impulsive risky behaviors, such as seeking immediate rewards while discounting future rewards that promise more beneficial outcomes (Mishra & Novakowski, 2016).

Our fourth hypothesis, that we would find a significant positive correlation between material values and celebrity attitudes, was confirmed. This result confirms previous research showing that people who scored “high” on a measure of celebrity admiration have also been shown to be materialistic (Green et al., 2014; Reeves et al., 2012, 2013). One possible explanation for this consistent finding is that excessive admiration of celebrities is partly due to a desire to possess the expensive clothes, houses, and vehicles that many celebrities own (Green et al., 2014). This explanation is bolstered by a more recent finding that many celebrity worshippers would like to be celebrities themselves (Greenwood, McCutcheon, Collisson, & Wong, 2018). Another explanation is that people who have psychological deficiencies often turn to external sources of gratification, such as celebrity worship and materialism, in an ineffectual attempt to compensate for their deficiencies (Reeves et al., 2012).

Our fifth hypothesis, that we would find a positive correlation between material values and personal relative deprivation, was confirmed. This result is consistent with the evidence from previous research (Kim et al., 2017; Zhang & Zhang, 2016). One plausible explanation for this finding is consistent with reactance theory. This theory holds that when a freedom is removed from someone, that person is motivated to restore the lost freedom. When people feel relatively deprived by comparison with similar others of the freedom to purchase expensive items, these individuals tend to feel motivated to acquire the goods and services they feel they deserve (Brehm, 1966).

The results of our study suggest that personal relative deprivation and celebrity attitudes, while weakly associated with one another, share a variety of commonalities. This study found that both constructs are associated with impulsivity and materialistic values. Moreover, people high in personal relative deprivation (Callan et al., 2008, 2011; Callan, Shead et al., 2015; Kim et al., 2017; Mishra & Meadows, 2017; Mishra & Novakowski, 2016; Zhang & Zhang, 2016) and those high in celebrity admiration (Lian et al., in press; Maltby et al., 2011; McCutcheon et al., 2014) are more likely to gamble. Impulsivity, materialistic values, and gambling are characteristics that suggest a lack of fulfillment and sense of desperation. Moreover, relative personal deprivation and celebrity admiration are both associated with poor mental health (Callan, Kim et al., 2015; Chung et al., 2018; Gero et al., 2017; Maltby et al., 2004; Mishra & Carleton, 2015). Future research on celebrity admiration should continue to explore the theoretical basis for the connection between attitudes toward celebrities, materialism, impulsivity, and poor mental health.

As is true with any correlational research, caution must be exercised in the interpretation of our results. The design does not allow us to determine causation. For example, we are unable to conclude that materialism *causes* people to become interested in celebrities. Our data were collected online using a crowdsourcing platform and may not reflect demographic characteristics of other samples. Despite these limitations, our study contributes to a larger body of research elucidating several negative personal characteristics associated with the constructs of personal relative deprivation and celebrity worship.

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