

Mahadevan, N., Gregg, A. P., & Sedikides, C. (2018). Where I am and where I want to be: Perceptions of and aspirations for status and inclusion differentially predict psychological health. *Personality and Individual Differences*. Advance online publication. doi:10.1016/j.paid.2018.10.041

Where I Am and Where I Want to Be: Perceptions of and Aspirations for Status and Inclusion
Differentially Predict Psychological Health

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All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. All authors consented to the submission of this manuscript.

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Abstract

Consistent with the motives to achieve social status and inclusion being fundamental, higher levels of both, actual and perceived, have been linked with better psychological health. This study ($N=680$) sought to extend understanding of such links by examining how individual differences in aspirations for status and inclusion correlated with psychological health (higher trait self-esteem, lower trait anxiety). Whereas perceptions of higher status and inclusion showed a positive link to psychological health, higher aspirations for status and inclusion showed a negative link. The former and latter pairs of links persisted after controlling for one another, and no evidence emerged of moderation. It is beneficial to perceive one's status and inclusion as high, but not to aspire for them to be, regardless of how such perceptions and aspirations interrelate.

Keywords: status aspirations; need to belong; status; inclusion; psychological health; self-esteem; anxiety

1. Introduction

Recent theorising defines *social status* as the extent to which an individual is respected, admired, and deemed important (Fiske, 2010). The desire to achieve status, so defined, is a fundamental human motive, serving evolutionary functions (Anderson, Hildreth, & Howland, 2015). In keeping with this view, people engage in a variety of goal-oriented behaviors to attain and maintain status (Anderson & Kilduff, 2009), which in turn offers a range of psychological benefits. For example, higher-status people are more satisfied with their lives (Anderson, Kraus, Galinsky, & Keltner, 2012), and suffer less anxiety and depression (Mahadevan, Gregg, Sedikides, & De Waal-Andrews, 2016). In contrast, lower-status people also have lower self-esteem (Fournier, 2009), and are more likely to feel insecure and threatened by others (Gregg, Mahadevan, & Sedikides, 2018).

Another fundamental human motive is desire to achieve inclusion, also termed the need to belong (Baumeister & Leary, 1995). *Social inclusion*, the extent to which an individual is liked, accepted, and fits in well with others (Anderson et al., 2015), is also a state of affairs that people strive to maintain (Maner, DeWall, Baumeister, & Schaller, 2007). Like higher status, greater inclusion offers several psychological benefits. For example, socially included people enjoy higher self-esteem (Mahadevan, Gregg, & Sedikides, 2018) and feel more in control of their lives (Zadro, Williams, & Richardson, 2004). In contrast, socially excluded people experience more anger (Riva, Romero Lauro, DeWall, Chester, & Bushman, 2015), and perceive life as less meaningful (Stillman et al., 2009).

Although status and inclusion are positively correlated, they remain conceptually and empirically distinct (Anderson et al., 2015; Mahadevan, Gregg, & Sedikides, 2018). Status is agentic in character and involves striving to get ahead, whereas inclusion is communal in character and involves striving to get along (Abele & Wojciszke, 2018; Gregg, Mahadevan, & Sedikides, 2017). Consistent with status and inclusion being non-redundant, they each relate independently to psychological health. Higher status and greater inclusion predict higher self-

esteem after controlling for the other, correlationally (Huo, Binning, & Molina, 2010) and experimentally (Mahadevan, Gregg, & Sedikides, 2018). Both also independently correlate with positive and negative affect (Anderson et al., 2012) and symptoms of anxiety and depression (Mahadevan et al., 2016).

Status and Inclusion: Perceptions versus Aspirations

The above literature indicates that higher status and greater inclusion, actual and perceived, predict better psychological health. Moreover, perceptions of higher status and greater inclusion are rooted in reality: Self- and other-ratings of status and inclusion are positively correlated (Anderson, Srivastava, Beer, Spataro, & Chatman, 2006; Reitz, Motti-Stefanidi, & Asendorpf, 2016). An important question, however, is how *aspirations* for status and inclusion enter the picture. On the one hand, there are the levels of status and inclusion that people possess or regard themselves as possessing. On the other hand, there are the levels of status and inclusion for which people strive. Such strivings have also been theoretically posited to carry psychological implications (Anderson et al., 2015; Baumeister & Leary, 1995). Yet so far, little research has examined the implications of individual differences in such strivings. Rather, such strivings have been chiefly construed in universal terms: they have been framed as fundamental motives that apply across the board rather than as contingent desires that might differentiate one person from another. Nonetheless, both conceptions are complementary. Just as theorizing the universality of language need not exclude an exploration of how verbal ability varies, nor must theorizing the universality of status or inclusion strivings exclude the exploration of how such strivings vary. Indeed, if biological desires as evolutionarily indispensable as libido exhibit non-trivial variation (Simpson & Gangestad, 1991), then so too might people's aspirations to be respected or admired (i.e., achieve status) or liked and accepted (i.e., achieve inclusion). Accordingly, we investigated how individual differences, not only in people's perceptions of status and inclusion, but also in their aspirations for status and inclusion, related to their psychological health.

In so doing, we complemented other recent work that goes beyond a universalist, and adopts a more dispositionalist, approach to motivation (Sheldon & Schüler, 2011). Our enterprise also followed in the footsteps of classic research on human motivation (McClelland, 1987), which has attempted to quantify individual differences in related variables, such as needs for achievement and affiliation, that can likewise be differentiated in terms of the general agency-communion distinction.

Hypotheses and Rationales

We began by hypothesizing that *perceptions of higher status and inclusion will predict better psychological health* (H1), and that *greater aspirations for status and inclusion will predict poorer psychological health* (H2). Prior theory and research were consistent with H1. We had two grounds for putting forward H2.

First, to the extent that status and inclusion are social goods that people desire, they should be desired more intensely when they are in shorter supply (Mittone & Savadori, 2009). Indeed, both *dominance theory* arguably (Barkow, 1980), and *sociometer theory* explicitly (Leary et al., 1995), posit that human beings possess specialized psychological systems, the purpose of which is to alert the organism, via reductions in felt self-esteem, whenever levels of status and inclusion, so crucial to survival and reproduction, have dipped perilously low (Gregg, Sedikides, & Pegler, 2018; Mahadevan et al., 2016). Accordingly, greater aspirations for status and inclusion are liable to serve, in part, as subjective markers for objectively lower levels of status and inclusion. If so, then such aspirations would augur poorly for psychological health. Note, too, that both dominance theory and sociometer theory imply that perceptions of status and inclusion, and aspirations for them, should be inversely correlated.

Second, some findings from adjacent literatures suggest that prioritizing outcomes associated with status and inclusion may itself impair psychological health. For example, materialistic people—that is, people preoccupied with pursuing the riches and regalia that symbolize status—are prone to evaluating themselves more negatively and engaging in riskier

behaviors (Dittmar, Bond, Hurst, & Kasser, 2014). Likewise, a higher need for popularity has been linked to more depressed mood and a stronger likelihood of misusing drugs (Santor, Messervey, & Kusumakar, 2000).

We furthermore hypothesized (H3) that *perceptions of, and aspirations for, status and inclusion, would show links to psychological health that are at least partly independent*. After all, the prima facie case for perceptions being related to psychological health does not rely on the case for aspirations being so related, nor vice versa. For example, all else equal, two individuals whose aspirations for status or inclusion are equal should still be differentially distraught if one perceives themselves to be much more admired or liked than the other. Here, differences in perceptions alone should suffice to provoke a psychological difference, even if aspirations are invariant. Conversely, two individuals whose perceptions of status or inclusion are equal should still be differentially distraught if one is much keener to be admired or liked than the other. Here, differences in aspirations alone should suffice to provoke a psychological difference, even if perceptions are invariant.

Nonetheless, even if perceptions of, and aspirations for, status or inclusion were to show partly independent links to psychological health, it remains possible, and indeed plausible, that the strength of these links will depend on, respectively, the magnitude of aspirations or the level of perceptions. For example, among people whose aspirations for status or inclusion are especially high, one might expect their perceptions of status and inclusion to exert a greater impact on their psychological health. For, if they care more about being liked and admired, then whether or not they perceived themselves as liked or admired should matter more too.

Accordingly, we hypothesized (H4) that, for both status and inclusion separately, *the link between psychological health and perceptions would be moderated by aspirations*.

Indices of Psychological Health

We employed two leading indicators of psychological health: trait self-esteem and trait anxiety.

Self-esteem refers to one's global appraisal of the self (Sedikides & Gregg, 2003). High self-esteem individuals see themselves as worthwhile, feel they possess good qualities, and are satisfied with themselves despite their limitations (Rosenberg, 1965). Moreover, self-esteem predicts outcomes such as aggression (Garofalo, Holden, Zeigler-Hill, & Velotti, 2016) and economic prosperity (Trzesniewski et al., 2006). It is a critical indicator of psychological health (Mann, Hosman, Schaalma, & De Vries, 2004).

Anxiety refers to the emotion generated by the prospect of an event that, although vaguely specified, is expected to be untoward (Lader, 1972). It feels unpleasant and is accompanied by signs such as physiological arousal. In dispositional form, anxiety is a key component of neuroticism (Paulus, Vanwoerden, Norton, & Sharp, 2016), and predicts outcomes such as academic success (Seipp, 1991) and job performance (Judge & Ilies, 2002). Like self-esteem, it is a critical indicator of psychological health (Shiovitz-Ezra, Leitsch, Graber, & Karraker, 2009).

2. Method

Participants and Procedure

The study was run online. Participants were crowdsourced via CrowdFlower™ (as of 2018, rebranded Figure-Eight™). Any adults fluent in English were eligible to participate. After indicating their consent, participants completed the measures below, alongside others unrelated to this investigation, and provided demographic information. The study had been approved by the Ethics Committee of Psychology Department, University of X.

Of 789 initial cases of data collected, we excluded 109 for being of dubious quality. We excluded cases where participants reported being aged under 18 (1.0%) or having poor English proficiency (1.4%). We also excluded cases featuring duplicate IP addresses (2.9%), overly quick completions times (<1/2 the median; 5.8%), too many missing values (>1/20 questionnaire items; 4.2%), or invariant responses to questionnaires (3.7%). Our screened sample featured a preponderance of women (411 women, 266 men, 3 undeclared), young adults

($M_{\text{age}}=32.39$ years, $SD_{\text{age}}= 12.75$) of Caucasian ethnicity (76% White, 7% Black, 5% Hispanic, 5% East Asian, 4% South Asian, 3% other) and North America abode (87% U.S., 5% Canada, 4% UK, 1% India, 3% Other). Our final sample size ($N=680$) allowed us to detect small effect sizes of $r=.12$ with a high power of $(1-\beta)=0.90$ ($\alpha=.05$, two-tailed).

Measures

Table 1 features descriptive statistics and internal reliabilities for all measures.

Perceptions. We assessed perceptions of status and inclusion with two parallel questionnaires, comprising 8 and 9 items, respectively (1=*strongly disagree*, 5=*strongly agree*; Huo et al., 2010; Mahadevan et al., 2016, 2018). Both questionnaires began with the stem: “Most of the time I feel that people...” Sample items: “...admire me” (status); “...like me as a person” (inclusion).

Aspirations. We assessed aspirations for status and inclusion with two parallel questionnaires, both comprising 10 items (1=*strongly disagree*, 5=*strongly agree*; Supplemental Materials). Sample items: “Above all, I want to be successful” (status), “Above all, I want to be accepted” (inclusion).

Psychological Health.

Self-esteem. We assessed trait self-esteem with the 10-item *Rosenberg Self-Esteem Scale* (RSES; Rosenberg, 1965). Sample items: “I feel that I’m a person of worth, at least on an equal plane with others” (1=*strongly disagree*, 5=*strongly agree*).

Anxiety. We assessed trait anxiety with the 21-item *Beck Anxiety Inventory* (BAI; Beck, Epstein, Brown, & Steer, 1988), and the trait version of the 20-item *State Trait Anxiety Inventory* (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). The BAI lists mental and physical symptoms of anxiety, eliciting severity reports (1=*Not at all*, 2=*Mildly*, 3=*Moderately*, 4=*Severely*). The STAI emphasizes psychological issues via simple indicative statements, such as “I worry over possible misfortunes” (1=*not at all*, 2=*a little*, 3=*somewhat*, 4=*very much so*). We chose the BAI, a well-established index of clinical anxiety in children and

adults, and the STAI, a well-established index of anxiety symptoms in the general population, to obtain a comprehensive assessment (compare Gilbert, 2000, for depression). The two correlated strongly, $r(678)=.64, p<.001$, so we combined them into a single index by standardizing both and averaging.

3. Results

Table 2 depicts the matrix of raw inter-correlations between variables. The pair of variables in each group (i.e., perceptions, aspirations, psychological health) correlated strongly. Participants who perceived themselves to be higher in status also perceived themselves to be higher in inclusion; participants who aspired to higher status also aspired to higher inclusion; and participants who had higher self-esteem also had lower anxiety. The magnitudes were consistent with these variables being empirically correlated but not conceptually redundant.

The results supported our first two hypotheses. In respect of H1, higher perceptions of both status and inclusion covaried in the hypothesized direction with both self-esteem (positively) and anxiety (negatively). In respect of H2, higher aspirations for both status and inclusion also covaried in the hypothesized direction with both self-esteem (negatively) and anxiety (positively).

To test hypotheses H3 and H4, we conducted two multiple regressions, one in which self-esteem served as the outcome variable (Table 3), the other in which anxiety did (Table 4). In both regressions, we incorporated in Step 1 the standardized predictors of perceptions of and aspirations for status and inclusion. This facilitated a test of H3. At Step 2, we entered two cross-product interaction terms, reflective of any moderation between perceptions of and aspirations for status and inclusion, respectively. This facilitated a test of H4.

H3 was supported. Whether self-esteem or anxiety served as the outcome variable, perceptions of status and inclusion, and aspirations for status and inclusion, still independently predicted it. Thus, even taking account (modest) overlap between perceptions and aspirations,

each remained independently predictive of psychological health. Such a result justifies the independent operationalization of perceptions and aspirations.

H4 was not supported. As the relevant interaction terms were non-significant, no evidence emerged that the strength of the link between perceptions (of either status or inclusion) was moderated by aspirations (for either status or inclusion, respectively), or vice versa. Perceptions of higher status and inclusion predicted better psychological health equivalently, regardless of the keenness of aspirations for them; and aspirations for status and inclusion predicted worse psychological health equivalently, regardless of perceptions of higher status and inclusion. Put otherwise, not only did perceptions and aspirations, either for status or for inclusion, exhibit substantial independence in their own right (low inter-correlations), they also exhibited full independence with respect to their links to psychological health (no signs of perceptions moderating aspirations, or vice versa).

4. Discussion

Prior research abundantly testifies to the robust link between higher levels of status and inclusion, actual and perceived, on the one hand, and indices of psychological health, on the other (Hudson, 2005; Reitz et al., 2016). Indeed, the motives to achieve status and inclusion are each theorized to be fundamental (Anderson et al., 2015; Baumeister & Leary, 1995). Nonetheless, given that even basic biological drives exhibit substantial individual differences (Simpson & Gangestad, 1991), we examined, for the first time, how individual differences in the keenness of people's aspirations to attain status and inclusion were linked to their psychological health, alongside perceptions of attainment of status and inclusion.

Summary of Findings and Implications

We found that, although both perceptions of, and aspirations for status and inclusion, predicted psychological health, they did so in opposite directions. Whereas elevated perceptions of status and inclusion both predicted higher self-esteem and lower anxiety (supporting H1), keener aspirations for status and inclusion both predicted lower self-esteem and higher anxiety

(supporting H2). Each type of predictive link persisted even controlling for the other (supporting H3). This suggests that perceptions of and aspirations for both status and inclusion tap into at least partially distinct sets of processes with different implications for psychological health. It is not only what standing you have in society, in terms of being respected or accepted, that predicts how much you like yourself, or how anxious you are, but also, above and beyond that, what standing you desire to have in society, in terms of being respected or accepted. Accordingly, theories that make predictions about how people react to aspects of their reputation among their peers (Leary et al., 1995; Mahadevan et al., 2016; Gilbert, 2000) may merit expansion to accommodate, not only how people vary in their perceptions, but also how they vary in their desires, with respect to those aspects.

We also found that the implications for psychological health of participants' perceptions and aspirations did not depend on one another (contradicting H4). Perceptions of status and inclusion positively predicted psychological health to an equivalent extent regardless of aspirational keenness to achieve status and inclusion, and aspirations for status and inclusion negatively predicted psychological health to an equivalent degree regardless of perceived levels of status and inclusion. Thus, having or believing one has higher status and inclusion may be a cause of better psychological health regardless of how much one wants higher status and inclusion; and wanting higher status and inclusion may be a cause of worse psychological health regardless of how much status or inclusion one actually has or believes one has.

Also of interest was the link between perceptions and aspirations, for status and inclusion, considered separately. In both cases, perceptions and aspirations correlated only slightly, thereby underscoring their empirical non-redundancy and justifying their distinct operationalization. Nonetheless, the direction of these correlations, being statistically significant, has theoretical relevance. Both dominance theory and sociometer theory imply that perceptions of lower status or lower inclusion should magnify aspirations for status or inclusion, respectively. This should push for the emergence of a negative correlation. However, although

we obtained such a negative correlation for inclusion, we obtained a positive correlation for status. The results are thus consistent with the operation of a *compensatory* dynamic for inclusion—whereby a perceived lack thereof provokes a remedial desire to attain it. For status, they are consistent with the operation of a *consolidatory* dynamic—whereby the perceived presence of status reinforces an existing desire to attain it. Such a dynamic is at odds with dominance theory. However, it is in keeping with *hierometer theory* (Mahadevan et al., 2016, 2018). This latter theory postulates that the higher (or lower) one’s pre-existing status, the more (or less) adaptive sense it makes to pursue status-seeking goals, such as participating in risky zero-sum contests that can be catastrophically lost as well as gainfully won. If one’s pre-existing status is low—likely reflecting a dearth of personal, social, and material resources required to prevail in challenging contests—then it may make adaptive sense to curtail one’s status aspirations. Taken together, our findings suggest that, whereas perceiving one’s inclusion to be lower whets one’s appetite for it to be higher, thereby supporting sociometer theory, perceiving one’s status to be higher whets one’s appetite for it to be higher still, thereby supporting hierometer theory but contradicting dominance theory.

Limitations and Future Directions

Our study had several strengths. It relied on a large, anonymous, and diverse sample; assessed perceptions of and aspirations for both status and inclusion; and featured two indicators of psychological health, self-esteem and anxiety. However, it also had limitations. First, its design was cross-sectional, meaning that causal relations between constructs could not be definitively determined. For example, it was not possible to tell whether aspirations for status and inclusion worsened psychological health, or whether better psychological health assuaged aspirations for status and inclusion, or whether some set of third variables accounted for the link (apart from perceptions of status and inclusion, which we established did not). Second, we assessed all constructs via self-report. In particular, we assessed people’s aspirations for and perceptions of status and inclusion using self-reports rather than using more direct indicators of

status and inclusion (e.g., peer reports; cf. Reitz et al., 2016). Accordingly, insufficient knowledge of one's social reputation, or social desirability biases in reporting it, could have compromised their validity. However, this seemed unlikely. For example, all measures yielded normally distributed data, with mean values near the scale mid-point, and showed adequate levels of variance. Moreover, prior research indicates that people are tolerably accurate in their assessments of their status and inclusion: self-reports tend to converge with external indicators (Anderson et al., 2015; Fournier, 2009). Additionally, as people's aspirations for status and inclusion are tricky to infer, they were likely best judged by the individuals themselves. Nonetheless, we welcome future research retesting our hypotheses with more objective indices. Third, our study did not address the role of cross-cultural differences. Although our sample was fairly large and diverse in terms of age and gender, it was predominantly Western. Future research might profitably examine whether our findings replicate among non-Western samples.

5. Conclusions

People desire status: they seek to be respected and admired. They also desire inclusion: they seek to be liked and accepted. In addition, people come to achieve some level of status and inclusion, and come to perceive that they do. It is well known that higher levels of status and inclusion, actual and perceived, augur well for psychological health. Here, however, we showed, for the first time, that a greater keenness to attain status and inclusion augurs poorly for it, and independently of any perceptions of attainment. Accordingly, it helps to know, not only where people believe they stand in society, but how keen they are to obtain that standing, in order to predict their psychological health.

References

- Abele, A.E., & Wojciszke, B. (2018). Introduction: The Big Two of agency and communion as an overarching framework in psychology. In A.E. Abele & B. Wojciszke (Eds.), *Agency and Communion in Social Psychology* (pp. 1-12). Routledge.
- Anderson, C., Hildreth, J.A.D., & Howland, L. (2015). Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological Bulletin*, *141*, 574-601.
doi:10.1037/a0038781
- Anderson, C., & Kilduff, G.J. (2009). Why do dominant personalities attain influence in face-to-face groups? The competence-signaling effects of trait dominance. *Journal of Personality and Social Psychology*, *96*, 491-503. doi:10.1037/a0014201
- Anderson, C., Kraus, M.W., Galinsky, A.D., & Keltner, D. (2012). The local-ladder effect: social status and subjective well-being. *Psychological Science*, *23*, 764-771. doi:10.1177/0956797611434537
- Anderson, C., Srivastava, S., Beer, J.S., Spataro, S.E., & Chatman, J.A. (2006). Knowing your place: Self-perceptions of status in face-to-face groups. *Journal of Personality and Social Psychology*, *91*, 1094-1110. doi:10.1037/0022-3514.91.6.1094
- Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529. doi:10.1037/0033-2909.117.3.497
- Beck, A.T., Epstein, N., Brown, G., & Steer, R.A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting Clinical Psychology*, *56*, 893-897.
doi:10.1037/0022-006X.56.6.893
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, *107*, 879-924. doi:10.1037/a0037409
- Fiske, S.T. (2010). Interpersonal stratification: Status, power, and subordination. In S.T. Fiske, D.T., Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., pp. 941-982). New York:

Wiley.

- Fournier, M.A. (2009). Adolescent hierarchy formation and the social competition theory of depression. *Journal of Social and Clinical Psychology, 28*, 1144-1172. doi:10.1521/jscp.2009.28.9.1144
- Garofalo, C., Holden, C.J., Zeigler-Hill, V., & Velotti, P. (2016). Understanding the connection between self- esteem and aggression: The mediating role of emotion dysregulation. *Aggressive Behavior, 42*, 3-15. doi:10.1002/ab.21601
- Gilbert, P. (2000).The relationship of shame, social anxiety and depression: The role of evaluation of social rank. *Clinical Psychology and Psychotherapy, 7*, 174-189.doi:10.1002/1099-0879
- Gregg, A.P., Mahadevan, N., & Sedikides, C. (2017). Intellectual arrogance and intellectual humility: Correlational evidence for an evolutionary-embodied-epistemological account. *The Journal of Positive Psychology, 12*, 59-73. doi:10.1080/17439760.2016.1167942
- Gregg, A.P., Mahadevan, N., & Sedikides, C. (2018). Taking the high ground: The impact of social status on the derogation of ideological opponents. *Social Cognition, 36*, 43-77. doi:10.1521/soco.2018.36.1.43
- Gregg, A.P., Sedikides, C., & Pegler, A. (2018). Self-esteem and social status: Dominance theory and hierometer theory. In T.K. Shackelford & V.A. Weekes-Shackelford (Eds.), *Encyclopedia of evolutionary psychological science*. Berlin: Springer International Publishing AG. doi:10.1007/978-3-319-16999-6_1450-1
- Hudson, C.G. (2005). Socioeconomic status and mental illness: Tests of the social causation and selection hypotheses. *American Journal of Orthopsychiatry, 75*, 3-18. doi:10.1521/soco.2018.36.1.43
- Huo, Y.J., Binning, K.R., & Molina, L.E. (2010). Testing an integrative model of respect: Implications for social engagement and well-being. *Personality and Social Psychology Bulletin, 36*, 200-212. doi:10.1177/0146167209356787
- Judge, T.A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology, 87*, 797-807. doi:10.1037//0021-9010.87.4.797

- Lader, M. (1972). The nature of anxiety. *The British Journal of Psychiatry*, *121*, 481-491.
doi:10.1192/bjp.121.5.
- Leary, M.R., Tambor, E.S., Terdal, S.K., & Downs, D.L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*, 518-530.
- Maner J.K., DeWall N., Baumeister R.F., Schaller M. (2007). Does social exclusion motivate interpersonal reconnection? Resolving the “porcupine problem.” *Journal of Personality and Social Psychology*, *92*, 42-55. doi:10.1037/0022-3514.92.1.42
- Mann, M.M., Hosman, C.M., Schaalma, H.P., & De Vries, N.K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research*, *19*, 357-372.
doi:10.1093/her/cyg041
- Mahadevan, N., Gregg, A.P., & Sedikides, C. (2018). Is self-regard a sociometer or a hierometer? Self-esteem tracks status and inclusion, narcissism tracks status. *Journal of Personality and Social Psychology*. Advance online publication. doi:10.1037/pspp0000189
- Mahadevan, N., Gregg, A.P., Sedikides, C., & De Waal-Andrews, W. (2016). Winners, losers, insiders, and outsiders: Comparing hierometer and sociometer theories of self-regard. *Frontiers in Psychology*, *7*, 334. doi:10.3389/fpsyg.2016.00334
- McClelland, D.C. (1987). *Human motivation*. New York, NY: Cambridge University.
- Mittone, L., & Savadori, L. (2009). The scarcity bias. *Applied Psychology*, *58*, 453-468.
doi:10.1111/j.1464-0597.2009.00401.x
- Paulus, D.J., Vanwoerden, S., Norton, P.J., & Sharp, C. (2016). From neuroticism to anxiety: Examining unique contributions of three transdiagnostic vulnerability factors. *Personality and Individual Differences*, *94*, 38-43. doi:10.1016/j.paid.2016.01.012
- Reitz, A.K., Motti-Stefanidi, F., & Asendorpf, J.B. (2016). Me, us, and them: Testing sociometer theory in a socially diverse real-life context. *Journal of Personality and Social Psychology*, *110*, 908-920. doi:10.1037/pspp0000073

- Riva, P., Romero Lauro, L.J., DeWall, C.N., Chester, D.S., & Bushman, B.J. (2014). Reducing aggressive responses to social exclusion using transcranial direct current stimulation. *Social Cognitive and Affective Neuroscience, 10*(3), 352-356. Doi:10.1093/scan/nsu053
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.
- Santor, D.A., Messervey, D., & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *Journal of Youth and Adolescence, 29*, 163-182. doi:0047-2891/00/0400-0163\$18.00/0
- Sedikides, C., & Gregg, A.P. (2003). Portraits of the self. In M.A. Hogg & J. Cooper (Eds.), *Sage handbook of social psychology* (pp. 110-138). London: Sage Publications.
- Seipp, B. (1991). Anxiety and academic performance: A meta-analysis of findings. *Anxiety Research, 4*, 27-41. doi:10.1080/08917779108248762
- Sheldon, K. M., & Schöler, J. (2011). Wanting, having, and needing: Integrating motive disposition theory and self-determination theory. *Journal of Personality and Social Psychology, 101*, 1106-1123. doi:10.1037/a0024952
- Shiovitz-Ezra, S., Leitsch, S., Graber, J., & Karraker, A. (2009). Quality of life and psychological health indicators in the National Social Life, Health, and Aging Project. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 64*, 30-37. doi:10.1093/geronb/gbn020
- Simpson, J.A., & Gangestad, S.W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology, 60*, 870-883.
- Spielberger, C.D., Gorsuch, R.L., Lushene, R., Vagg, P.R., & Jacobs, G.A. (1983). *State-Trait Anxiety Inventory for adults*. Palo Alto: Consulting Psychologists Press.
- Stillman, T.F., Baumeister, R.F., Lambert, N.M., Crescioni, A.W., DeWall, C.N., & Fincham, F.D. (2009). Alone and without purpose: Life loses meaning following social exclusion. *Journal of*

Experimental Social Psychology, 45, 686-694. doi:10.1016/j.jesp.2009.03.007

Trzesniewski, K.H., Donnellan, M.B., Moffitt, T.E., Robins, R.W., Poulton, R., & Caspi, A. (2006).

Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Developmental Psychology*, 42, 381-390.

doi:10.1037/0012-1649.42.2.381.

Zadro, L., Williams, K.D., & Richardson, R. (2004). How low can you go? Ostracism by a computer is

sufficient to lower self-reported levels of belonging, control, self-esteem, and meaningful existence. *Journal of Experimental Social Psychology*, 40, 560-567.

doi:10.1016/j.jesp.2003.11.006

Table 1. *Descriptive Statistics and Internal Reliabilities*

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>α</i>
1. Status Perceptions	3.33	.75	.91
2. Inclusion Perceptions	3.75	.67	.92
3. Status Aspirations	3.19	.73	.86
4. Inclusion Aspirations	2.91	.77	.90
5. Self-esteem	3.61	.79	.91
6. BAI	1.81	.67	.95
7. STAI	2.15	.66	.95

Table 2. *Raw Correlations between All Variables*

<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Status Perceptions	1	-	-	-	-	-
2. Inclusion Perceptions	.63***	1	-	-	-	-
3. Status Aspirations	.16***	.01	1	-	-	-
4. Inclusion Aspirations	-.08*	-.08*	.45***	1	-	-
5. Self-esteem	.61***	.55***	-.09*	-.27***	1	-
6. Anxiety	-.33***	-.36***	.24***	.28***	-.62***	1

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3. *Regression of Perceptions of, and Aspirations for, Status and Inclusion (Step 1), and Their Cross-Product Interaction Terms (Step 2) on Self-Esteem*

<i>Variable</i>	Self-Esteem			
	Step 1		Step 2	
	β	<i>p</i>	β	<i>p</i>
1. Status Perceptions	.444	.000	.444	.000
2. Inclusion Perceptions	.262	.000	.254	.000
3. Status Aspirations	-.080	.014	-.080	.015
4. Inclusion Aspirations	-.174	.000	-.173	.000
5. Status Perceptions \times Aspirations	-	-	.004	.895
6. Inclusion Perceptions \times Aspirations	-	-	.053	.091

Table 4. *Regression of Perceptions of, and Aspirations for, Status and Inclusion (Step 1), and Their Cross-Product Interaction Terms (Step 2) on Anxiety*

<i>Variable</i>	Anxiety			
	Step 1		Step 2	
	β	<i>p</i>	β	<i>p</i>
1. Status Perceptions	-.220	.000	-.220	.000
2. Inclusion Perceptions	-.210	.000	-.205	.000
3. Status Aspirations	.214	.000	.213	.000
4. Inclusion Aspirations	.152	.000	.151	.000
5. Status Perceptions \times Aspirations	-	-	-.004	.911
6. Inclusion Perceptions \times Aspirations	-	-	-.036	.339