Fort Hays State University

FHSU Scholars Repository

6-2019

The Effects of Upward and Downward Social Comparison on Teacher Evaluations

Janett Naylor-Tincknell
Fort Hays State University, jmnaylor@fhsu.edu

Carol Patrick
Fort Hays State University, clpatrick@fhsu.edu

Recommended Citation

The Effects of Upward and Downward Social Comparison on Teacher Evaluations

Janett M. Naylor-Tincknell and Carol L. Patrick
Fort Hays State University

Abstract

One potential source of bias in teaching and course evaluations may be the students' perceptions of the personality of the instructor. Social comparison theory may help elucidate the relation between personality and teaching evaluations. The use of downward or upward social comparison may result in more negative assessment of the course depending on the favorability of the personality trait. Students (N=176) rated themselves and their instructor on five personality traits, as well as the overall quality of the course and the instructor. Results indicated that when the students viewed themselves as having more favorable traits than their instructor, they tended to rate the course, and sometimes the instructor, more harshly. Universities should consider social comparison as a possible source of bias in teaching evaluations.

Keywords: teaching evaluation, personality, social comparison, big five

Student evaluation of teachers at the university level is an important process that affects both the lives of teachers and students. Often student evaluations are heavily considered in the processes of awarding tenure and promotion, as well as determining merit pay increases. Teaching evaluations are frequently shown to be not reliable and valid before they are implemented and are taken at face value without any consideration of sources of bias (e.g., gender; MacNell, Driscoll, & Hunt, 2015). These evaluations, therefore, may eventually affect who ends up teaching future students and may cost the jobs of valuable faculty members. The purpose of the current study is to examine a possible new source of bias, upward and downward social comparison the students make of their own personality traits related to that of their instructors.

It is well-established that student evaluations of teachers are subject to numerous sources of bias. These include whether the course is required or elective (e.g., Divorky & Rathermel, 1988; Feldman, 1978; Petchers & Chow, 1988; Scherr & Scherr, 1990); lower level or higher level (e.g., Goldberg & Callahan, 1991; Moritsch & Suter, 1988), and even what discipline the instructor is teaching (e.g., Cashin, 1992; Centra, 1993). One biasing factor studied less than some others is the effect of the teacher's personality on teacher and course evaluations.

Personality as a Source of Bias

The current study utilized Costa and McCrae's (1992) conceptualization of personality. It postulates that personality occurs along five domains and is measured by the Revised NEO Personality Inventory–Revised (NEO-PI-R). Those five domains are often referred to as the "Big Five" and include neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness.

Briefly defined, those who are neurotic tend to show higher levels of characteristics like depression, hostility, anxiety, self-consciousness, vulnerability, and impulsiveness, that are frequently perceived as negative (Costa & McCrae, 1992). Individuals who score high on the extraversion domain are associated with positive characteristics like being warm, assertive, seeking excitement, and displaying positive emotions.

Correspondence concerning this article should be addressed to Janett M. Naylor-Tincknell, Department of Psychology, Fort Hays State University, 600 Park St., Hays, KS 67601. Office: 785.628.5857, Fax: 785.628.5861, Email: jmnaylor@fhsu.edu.

Those individuals who show openness to experience report the positive aspects of new actions, ideas, feelings, and aesthetic stimuli. The positive traits of helpfulness, compassion, trust, and sympathy are displayed more frequently by those scoring high on the agreeableness domain. Finally, those who score high on the conscientious domain are more likely to demonstrate the positive traits of competence, orderliness, dutifulness, and self-discipline.

Personality of the instructor is related to teacher evaluations. Previous studies have found that personality traits such as kindness, humor, warmth, charisma, self-assurance, attractiveness, or enthusiasm, are connected with higher teaching ratings (e.g., Ahmadi, Helms, & Raiszadeh, 2001; Bennett, 1982; Clayson & Sheffet, 2006; Feldman, 1986; Riniolo, Johnson, Sherman, & Misso, 2006; Silva, Silva, Quinn, Draper, Cover, & Munoff, 2008; Widmeyer & Loy, 1998; Wilson, 1998). The concern is that traits related to behavior and personality of the instructor may be valued by students regardless of the expertise of the instructor or the mastery of the topic by students (Kindred & Mohammed, 2005; Silva, Silva, Quinn, Draper, Cover, & Munoff, 2008).

More recently, research has focused on the Big Five personality domains and their relation to teaching evaluation scores. Patrick (2011) discovered that agreeableness, conscientiousness, extraversion, and openness were related positively to ratings of teaching, whereas neuroticism was negatively related. Studies in the United States (e.g., Hopper, 2014) and other countries (e.g., Atta et al., 2013; Eryilmaz, 2014) found similar results on the relations of the five domains to teaching evaluations.

However, other studies found no or small relations between teacher personality domains and student ratings of teacher effectiveness (e.g., Chen & Watkins, 2012; Walter, 2003). Other studies discovered some, but not all, domains of personality related to teacher effectiveness. For example, extraversion, conscientiousness, and/or and agreeableness correlated positively with teacher ratings, but neuroticism and openness did not correlate (Othman, 2009).

Personality Match as a Source of Bias

One possibility that might explain these differing results is that the match between instructor and student personality may affect teaching evaluation, rather than the students' perceptions of the teacher's personality alone. The call for research about this possible effect of personality "match" on teaching evaluation was made in the 1970s (Kovacs & Kapel, 1976), but few studies have examined this question. One study that examined a similar concept looked at students' ideal professor as measured by using the Big Five domains (Kim & McCann, 2016). Students rated their ideal instructor as having scores on personality domains that were similar to their own personality. Additionally, students described themselves as more satisfied with their instructor if their ratings of their instructor's personality were similar to their ratings of their ideal professor's personality.

Inconsistent study findings of the relation between personality and teaching evaluation could therefore be a result of how the match between instructor and student personality is measured. There are several ways one could examine the personality match between instructor and student. The match between teacher and student personality could be measured as an absolute value, simply indicating closeness of match between student and teacher personality. However, an absolute value analysis would not examine the match with the desired complexity, especially whether the students' perceptions of themselves are more positive or negative compared with their perceptions of the instructor. In other words, the match could be examined in a directional manner, utilizing positive and negative values. This could indicate whether the self-perceived personality traits of the students are seen as more favorable compared to the students' perceptions of the teacher's personality traits and how that discrepancy relates teacher evaluations. For example, if students view themselves as more open than the teacher (resulting in positive values of personality rating difference scores), they may evaluate the teacher differently than if students view themselves as less open than the teacher (resulting in negative values for personality rating difference scores). Because the process of teacher evaluation is inherently comparative, how students compare themselves to their instructors could influence teacher evaluations. Students may use the self as one of the natural targets of comparison.

Social Comparison as a Source of Bias

People compare themselves to others to gain information about the self or to evaluate their behavior and opinions (Festinger, 1954). In comparing themselves to others, people want to feel positively about who they are and what they do (Tesser, 1986). To maintain this positive evaluation of self, people will act in ways to maintain or increase their self-perceptions through self-verification (i.e., seeking information and conformation from others to reinforce that their abilities and opinions are good) or self-enhancement (i.e., comparing themselves to others to feel confident and capable about their abilities and opinions; Tesser, 1999). Self-maintenance through self-verification

and/or self-enhancement can be accomplished by comparing self to other with either upward social comparison or downward social comparison to specific chosen comparison targets.

The choice of comparison target can greatly impact the use of upward or downward social comparison and the resulting positive or negative impact on self (Tesser, 1986). Unfortunately, the choice of target may not always be optional or rational. People may choose targets that are far superior to them, which may have positive or negative effects (Collins, 1996). For example, if people choose targets who greatly outperform them on a task, people may feel motivated to achieve at the same level on said task or be deflated by their inability to reach superior performance on that task. Conversely, if people choose targets that are below their abilities and opinions, they may feel unrealistically better about their abilities and opinions. The positive or negative outcome of the comparison could also be a result of amount of exposure and motivation of the comparison.

When repeatedly exposed to comparison targets that are more skilled (upward social comparison), people may evaluate the self or others harshly to feel better about their own abilities (Chamber & Windschitl, 2009). For example, when students evaluate instructors at the end of the semester, their ratings may be overly critical of courses and instructors as a way to maintain their sense of competency. Choosing targets with higher skills can also result in improved performance possibly by providing useful tips to increase the observers' skills (Buunk & Ybema, 1997) or providing motivation to become more skilled (Lockwood & Kunda, 1997). In the context of teacher evaluations, students may positively view the skilled instructors as mentors from which to learn. Conversely, downward social comparison (students perceive themselves more favorably than instructors) could be used to boost mood or self-esteem as a way of coping with failure (Gibbons et al., 2002), like when students are unhappy with their course performance. So, depending on the amount of exposure to targets, skills of targets, and personal function of comparison, upward or downward social comparison can have positive or negative outcomes, making the choice of target very important.

People can also alter their comparison targets based on their motivations (Wood & Taylor, 1991). For example, if people feel threats to their esteem, they may seek comparisons to people viewed as worse-off (downward social comparison) to enhance the self (Friend & Gilbert, 1973). If students are feeling ego threats because of poor performance in a course, they may rate themselves higher than instructors on characteristics to diminish the threat to self. Conversely, choosing to compare to others who do well can boost people's personal views of potential (Lockwood & Kunda, 1997) and self-efficacy (Bandura, 1986). By choosing to compare upward to instructors, students could feel empowered in the topic and confident in future courses.
The process of social comparison, whether upward or downward, implies both rational and irrational thinking (Goethals & Klein, 2000). For the process to involve rational thought, people must have access to unbiased, objective information about themselves and their comparison targets. Using rational thinking, people would want to choose targets that are similar in characteristics because they can learn from these comparisons. Additionally, people need accurate social comparisons to make judgments about their opinions and abilities (Wheeler & Suls, 2005). However, most social comparisons may actually involve irrational thinking and bias (Djikic & Langer, 2007). Mindless social comparison can involve selecting inappropriate targets, not being aware of the intent behind behaviors and opinions, and not having criteria for judgment, which could be the case in forced student-instructor comparisons. Even given the pitfalls of biased social comparison, people still cannot control when and to whom they compare themselves (Goethals & Klein, 2000).

Current Study

Choice of comparison target is not optional when evaluating non-peers. For example, managers must frequently rate the performance of subordinates and committees judge the value of applicants. Students are asked to rate the teaching skills of instructors and overall quality of classes, which forces an unnatural self-other comparison pair. Even when forced to evaluate others, the natural comparison target may be the self. For students evaluating instructors, the students may use personal characteristics as the basis of judgment of skills, attitudes, and overall quality of the course.

A small amount of research has investigated the link between social comparison and evaluations of the quality of instruction of teachers. Logically though, if people use social comparison to evaluate the performance of others, these evaluations may be biased by the self-enhancement and self-verification processes and the use of either upward or downward social comparison. For favorable characteristics, students may view themselves in a more positive light to maintain sense of self and use downward social comparison. However, for unfavorable characteristics, students may view themselves as lower than the comparison target and maintain a positive sense of self by using upward social comparison.

Specifically, for positive personality traits like extraversion, openness, conscientiousness, and agreeableness, students may see themselves as better than instructors and use downward social comparison to feel good about themselves. However, this sense of superiority may lead to more negative evaluations Therefore, students who view themselves as better than the instructor may be more likely to rate the course and the instructor's abilities more harshly. For negative personality traits like neuroticism, students may see themselves leading to negative course and instructor evaluations and the use of upward social comparison. This discrepancy between self-perception of personality and perception of instructor personality may unduly influence the students rating of overall instructors' teaching ability and the course that is over and above the impact of perceptions of instructor personify traits on teacher and course evaluations.

The purpose of the current study was to evaluate whether upward or downward social comparison explained additional variance in teaching and course evaluations than the variance accounted for by students' perceptions of instructor personality. Social comparison was measured by the discrepancy between students' perceptions of personality traits of self and teacher. Student evaluations of the instructor and the course were collected. To calculate discrepancy scores, students' perceptions of instructors' personality traits were subtracted from the students' perceptions of their own personality traits (e.g., student's perception of own agreeableness minus student's perception of teacher's agreeableness). Positive discrepancy scores indicated students viewed themselves higher on the trait than the instructors, representing downward social comparison. Conversely, negative discrepancy scores suggested students viewed themselves lower on the trait than the instructor, representing upward social comparison. Discrepancy scores for all five personality traits were calculated and used to predict class and instructor ratings.

Method

Participants

Participants ($N = 176$) were a sample of students from a small Midwestern university representative of the campus as a whole. These students were enrolled in one of seven general education courses (lower and upper division), representing a wide range of majors. The students' ages ranged from 17 to 52 years ($M = 21.22$; $SD = 3.38$). Seventy-three were men (41.5%) and 103 were women (58.5%). The sample included freshmen (21%), sophomores (27.8%), juniors (24.4%), and seniors (36.7%).

Instruments

Big Five Inventory (BFI). Participants completed two copies of John, Donahue and Kentle's (1991) Big Five Inventory. They reported their personality traits on one survey and their instructor's on the other. Whether they received the BFI for themselves or the instructor first was counterbalanced.

The BFI contains 44 items, measuring the Big Five Personality traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness. The BFI is based on Costa and McCrae's (1992) instrument, the NEO-PI. The BFI was utilized in the current study due to its relative brevity compared to the NEO-PI and its excellent reliability and convergent validity with the NEO-PI. BFI scales internal consistencies range from .75 to .90, and average above .80 (Pervin & John, 1999). Test-retest reliabilities range from .80 to .90. Convergent validity with the corresponding NEO-PI scales varies from .83 to .97 ($M = .92$).

Teaching Evaluation and Demographics Questionnaire. An author-created demographics and teaching questionnaire was created. Students evaluated both their instructor and the course (on a 4-point scale). Information about their major, age, gender, and year in school were obtained, as well.

The single item ratings of teaching and course were included in the current study because such items are often used at universities and are more subject to other sources of bias then multi-item, reliable, and valid measures (Arreola, 2000). In other words, a quickly-devised, single-item measure was chosen for the current study to reflect the evaluation instruments used at many universities and to ascertain whether a source of bias not previously tested (social comparisons of personality) has an effect on student ratings of teaching.

Procedure

Once instructors gave permission, students in their classes were given the two BFIs and the Teaching Evaluation and Demographics survey. All data collection occurred during the last three weeks of the semester.

Instructors were not in the classroom during testing. The two BFI versions (student version and instructor version) were counterbalanced.

Results

To calculate the social comparison variable for each dimension of personality (neuroticism, extraversion, openness, agreeableness, and conscientiousness), the student's perception of the instructor's personality was subtracted from student's self-reported personality domain score. For example, the social comparison level of extraversion was the student's level of extraversion minus their perception of the instructor's level of extraversion. Therefore, positive values indicate the student viewed themselves as higher in extraversion and in a higher position than the instructor, representing downward social comparison. Negative values indicate the student viewed themselves as lower in extraversion and in a lower position than the instructor, representing used upward social comparison. Means and standard deviations for all social comparison variables of personality can be found in Table 1.

Table 1

Means and Standard Deviations for All Variables

	M	SD
Overall Rating of Instructor[a]	3.58	.62
Overall Rating of the Course[a]	3.31	.62
Neuroticism[b]	6.29	6.95
Extraversion[b]	-5.75	7.66
Openness[c]	-1.84	7.08
Agreeableness[d]	-2.21	5.20
Conscientiousness[d]	-4.01	6.09

Note. [a]Scaled 1-4; [b]Scaled 8-40; [c]Scaled 10-50; [d]Scaled 9-45

Hierarchical multiple regressions were used to assess the relations between students' ratings of instructor personality and social comparison variables of personality on instructor and course ratings. Specifically tested were the five social comparison variables of personality (neuroticism, extraversion, openness, agreeableness, and conscientiousness) and the two student ratings (overall rating of the instructor's teaching ability and overall rating of the course).

The criterion in the first hierarchical multiple regression was the overall course rating; the criterion in the second hierarchical multiple regression was the overall rating of the instructor. In the first step of both hierarchical regressions, the effects of the five domains of instructor personality--as assessed by the students--were entered as predictors. In the second step, the effects of the social comparison of the students' personality with their perception of the instructor's personality were added as predictors to assess whether they explained variance in teaching evaluations over and above the effect of the instructor personality variables alone.

It was anticipated that the five domains of instructor personality would explain a significant amount of variance in the course and instructor ratings, consistent with previous studies (e.g., Patrick, 2011). In the second step, it was hypothesized that when students viewed themselves as better than the instructor on the extraversion, agreeableness, openness and conscientiousness personality dimensions, they would rate the overall instructor's teaching ability and course lower because they are using downward social comparison. However, for the undesirable personality dimension of neuroticism, an upward social comparison was anticipated with students seeing themselves as better than the instructor and thus rated the instructor and course lower. This second step was expected to explain variance in ratings over and above the effect of instructor personality alone.

In the first regression, with class rating as the criterion, the first step, containing the five domains of instructor personality as assessed by students, explained a significant amount of variance in class rating (F (5, 175) = 8.86, $p < .001$, $R^2 = .21$). In the second step, the effect of social comparison of personality added explanation of a significant amount of variance over and above that of personality alone (F chg = 2.85, $p < .05$, R^2 chg = .06). Significant predictors in the model were the instructor's level of openness ($B = .28$) and the social comparison of extraversion, with the students seeing the instructor in an upward position ($B = -.25$). Beta weights and significance levels are reported in Table 2.

Table 2

Hierarchical Multiple Regression Statistics: Overall Rating of Class Regressed on Student Ratings of Instructor Personality Characteristics on the Big Five Inventory, and the Difference Scores Between Student Ratings of Instructor Personality and Their Own Personalities

Step	Variable	b	SE	Beta	t	p
1.	Neuroticism	-.01	.01	.06	-.59	.56
	Extraversion	-.00	.01	-.01	-.06	.95
	Openness	.04	.01	.33	3.46	.00**
	Agreeableness	.00	.01	.03	.26	.80
	Conscientiousness	.01	.01	.12	1.17	.25
2.	Neuroticism	-.02	.01	-.12	-1.16	.25
	Extraversion	.00	.01	.00	.04	.97
	Openness	.03	.01	.28	2.87	.01**
	Agreeableness	-.00	.01	-.01	-.06	.96
	Conscientiousness	.02	.01	.12	1.18	.24
	Neuroticism Difference	-.00	.01	-.03	.33	.74
	Extraversion Difference	-.02	.01	-.25	-3.24	.00**
	Openness Difference	-.00	.01	-.04	-.51	.61
	Agreeableness Difference	.00	.01	.01	.15	.88
	Conscientiousness Diff	-.00	.01	-.02	-.25	.80

Note. Measures of personality in Step 1 are all based on student ratings of instructor personality on the BFI. Difference measures in Step 2 are the participants' self-rating of their own personality minus the participants' rating of the teacher's personality.
**$p < .01$

In the second regression, with instructor rating as the criterion, the first step, containing the five domains of instructor personality as assessed by students, explained a significant amount of variance in instructor rating ($F_{(5, 175)} = 6.05$, $p < .001$, $R^2 = .15$). In the second step, the effect of social comparison of personality did not explain a significant amount of variance over and above that of personality alone ($F\ chg = .54$, $p > .05$, $R^2\ chg = .01$). The only significant predictor in the model was the instructor's level of conscientiousness ($B = .23$). Beta weights and significance levels are reported in Table 3.

Table 3

Hierarchical Multiple Regression Statistics: Overall Ratings of Instructor Regressed on Student Ratings of Instructor Personality Characteristics on the Big Five Inventory, and the Difference Scores Between Student Ratings of Instructor Personality and Their Own Personalities

Step Variable	b	SE	Beta	t	p
1. Neuroticism	.01	.01	.04	.35	.73
Extraversion	.01	.01	.10	1.07	.29
Openness	.02	.01	.18	1.84	.07
Agreeableness	-.00	.01	-.03	-.26	.80
Conscientiousness	.03	.01	.24	2.32	.02*
2. Neuroticism	.00	.02	.02	.16	.87
Extraversion	.01	.01	.10	1.60	.11
Openness	.02	.01	.17	2.01	.05*
Agreeableness	-.00	.02	-.03	-.23	.82
Conscientiousness	.03	.01	.23	2.15	.03*
Neuroticism Difference	-.00	.01	-.02	-.22	.83
Extraversion Difference	.01	.01	-.09	-1.13	.26
Openness Difference	-.00	.01	-.05	-.58	.56
Agreeableness Difference	-.00	.01	-.03	-.27	.79
Conscientiousness Diff	.00	.01	.04	.42	.67

Note. Measures of personality in Step 1 are all based on student ratings of instructor personality on the BFI. Difference measures in Step 2 are the participants' self-rating of their own personality minus the participants' rating of the teacher's personality.

*p < .05

Discussion

The current study examined whether upward or downward social comparison is related to teaching and course evaluation. It was hypothesized that when students viewed themselves more favorably than the instructor on personality dimensions, they would rate the instructor's teaching ability and course lower overall. The hypothesis was mostly supported. The expected relations of all five of the personality social comparisons with course evaluation scores were found. Two of five of the expected relations were found between the personality social comparisons and ratings of the teacher.

Taken together, these results indicate that students may use themselves as the reference point when judging the teacher and the course. If the students view themselves in a positive light compared to the instructor, they tend to evaluate the class, and to some extent the instructor, more negatively. Upward and downward social comparisons, therefore, may be another biasing factor in teaching evaluation. Additionally, social comparison may explain some of the contradictory and inconsistent results in terms of the effects of personality on teaching evaluation (e.g., Chen & Watkins, 2012; Othman, 2009; Patrick, 2011; Walter, 2003).

When compared with other sources of bias in teaching evaluation, students' use of social comparison is perhaps less statistically controllable, highlighting the necessity for using reliable and valid measures of teacher performance. Such measures may minimize the effect of sources of bias (Arreola, 2000). Whether the course is required or is an elective can be easily measured, but the true starting and ending point of social comparison cannot be known. This is particularly important when teacher evaluations are used in merit, tenure, and promotion decisions.

Replication of these findings in samples that are more geographically and ethnically diverse may be warranted. In addition, institutions of higher education should consider controlling for measureable sources of bias in teacher evaluation, given that some biases, such as social comparison, may be unmanageable and the effects of the decision made based on the evaluations are far-reaching.

References

Ahmadi, M., Helms, M. M., & Raiszadeh, F. (2001). Business students' perceptions of faculty evaluations. *The International Journal of Educational Management, 15,* 12-22.

Arreola, R. A. (2000). *Developing a comprehensive faculty evaluation system*. Bolton, MA: Anker Publishing.

Atta, M., Ather, M., & Bano, M. (2013). Emotional intelligence and personality traits among university teachers: Relationship and gender differences. *International Journal of Business and Social Science, 4*, 253-259.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4,* 359-373.

Bennett, S. K. (1982). Student perceptions of and expectations for male and female instructors: Evidence relating to the question of gender bias in teaching evaluation. *Journal of Educational Psychology, 74,* 170-179.

Buunk, B. P., & Ybema, J. F. (1997). Social comparisons and occupational stress: The identification-contrast model. In B. Buunk & F. X. Gibbons (Eds.), *Health, coping and well-being: Perspectives from social comparison theory* (pp. 359-388). Mahwah, NJ: Erlbaum.

Cashin, W. E. (1992). Student ratings: The need for comparative data. *Instructional Evaluation and Faculty Development, 12,* 146.

Centra, J. A. (1993). *Reflective faculty evaluation: Enhancing teaching and determining faculty effectiveness*. San Francisco: Jossey-Bass.

Chamber, J. R., & Windschitl, P. D. (2009). Evaluating one performance among others: The influence of rank and degree of exposure to comparison referents. *Personality and Social Psychology Bulletin, 35,* 776-792. doi:10.1177/0146167209333044

Chen, G., & Watkins, D. (2010). Stability and correlates of student evaluations of teaching at a Chinese university. *Assessment & Evaluation in Higher Education, 35*, 675-685.

Clayson, D. E., & Sheffet, M. J. (2006). Personality and the student evaluation of teaching. *Journal of Marketing Education, 28*, 149-160.

Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluations. *Psychological Bulletin, 119*(1)*,* 51-69.

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factory Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.

Divorky, J. J., & Rathermel, M. A. (1988). Student perceptions of the relative importance of dimensions of teaching performance across type of class. *Educational Research Quarterly, 12*, 40-45.

Djikic, M. & Langer, E. J. (2007). Toward a mindful social comparison: When subjective and objective selves are mutually exclusive. *New Ideas in Psychology, 25,* 221-232.

Eryilmaz, A. (2014). Perceived personality traits and types of teachers and their relationship to the subjective well being and academic achievements of adolescents. *Educational Sciences: Theory and Practice, 14*, 2049-2062.

Feldman, K. A. (1978). Course characteristics and college students' ratings of their teachers: What we know and what we don't. *Research in Higher Education, 9,* 199-242.

Feldman, K. A. (1986). The perceived instructional effectiveness of college teachers as related to their personality and attitudinal characteristics: A review and synthesis. *Research in Higher Education, 24,* 129-213.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7,* 117-140.

Friend, R. M., & Gilbert, J. (1973). Threat and fear of negative evaluation as determinants of locus of social comparison. *Journal of Personality, 41,* 328-340.

Gibbons, F. X., Lane, D. J., Gerrard, M., Reis-Bergan, M., Lautrup, C. L., Pexa, N., & Blanton, H. (2002). Comparison level preferences after performance: is downward comparison theory still useful? *Journal of Personality and Social Psychology, 83,* 865-880. doi:10.1037/0022-3514.83.4.865

Goethals, G. R. & Klein, W. M. P. (2000). Interpreting and inventing social reality: Attributional and constructive elements in social comparison. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison* (pp. 23-44). New York: Kluwer Academics/Plenum Publishing.

Goldberg, G., & Callahan, J. (1991). Objectivity of student evaluations of instructors. *Journal of Education for Business, 66*, 377-378.

Hopper, S. (2016). The relationship of personality traits to teacher candidate perceptions of teaching confidence and teaching experience in a simulated classroom environment. *Dissertation Abstracts International Section A, 76*.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory – Versions 4A and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.

Kim, L., & MacCann, C. (2016). What is students' ideal university instructor personality? An investigation of absolute and relative personality preferences. *Personality and Individual Differences, 102*, 190-203.

Kindred, J., & Mohammed, S. N. (2005). "He will crush you like an academic ninja!": An analysis of Ratmyprofessors.com. *Journal of Computer Mediated Communication, 10*. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2005.tb00257.x/full

Kovacs, R., & Kapel, D. (1976). Personality correlates of faculty and course evaluations. *Research in Higher Education, 5*, 335-344.

Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology, 73,* 91-103.

MacNell, L., Driscoll, A., & Hunt, A. N. (2015). What's in a name: Exposing gender bias in student ratings of teaching. *Innovative Higher Education, 40*, 291-303.

Moritsch, B. G., & Suter, W. N. (1988). Correlates of halo error in teacher evaluation. *Educational Research Quarterly, 12*, 29-34.

Othman, F. (2009). *A study on personality that influences teaching effectiveness*. (Unpublished master's thesis). Universiti Sains Malaysia, Penang

Patrick, C. L. (2011). Student evaluations of teaching: Effects of the Big Five personality traits, grades, and the validity hypothesis. *Assessment & Evaluations in Higher Education, 8,* 239-249-. doi: 10.1080/02602930903308258

Pervin, L. A., & John, O. P. (Eds.) (1999). *Handbook of personality*. NY: Guilford.

Petchers, M. K., & Chow, J. C. (1988). Sources of variations in students' evaluations of instruction in a graduate social work program. *Journal of Social Work Education, 24*, 35-42.

Riniolo, T. C., Johnson, K. C., Sherman, T. R., & Misso, J. A. (2006). Hot or no: Do professors perceived as physically attractive receive higher student evaluations? *The Journal of General Psychology, 133,* 19-35.

Scherr, F. C., & Scherr, S. S. (1990). Bias in student evaluations of teacher effectiveness. *Journal of Education for Business, 65,* 356-358.

Silva, K. M., Silva, F. J., Quinn, M. A., Draper, J. N., Cover, K. R., & Munoff, A. A. (2008). Rate my professor: Online evaluations of psychology instructors. *Teaching of Psychology, 35,* 71-80. doi:10.1080/00986280801978434

Tesser, A. (1986). Some effects of self-evaluation maintenance on cognition and action. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 435-464). New York: Guilford Press.

Tesser, A. (1999). Toward a self-evaluation maintenance model of social behavior. In R. F. Baumeister (Ed.), *The self in social psychology* (pp. 446-460). Philadelphia: Psychology Press.

Walter, J. (2003). *The effects of instructor personality and other instructor and course characteristics on student evaluations of teaching effectiveness* (Unpublished master's thesis). Fort Hays State University, Hays, KS

Wheeler, L. & Suls, J. (2005). Social comparison and self-evaluations of competence. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 566-578). New York: Guilford Press.

Widmeyer, W. N., & Loy, M. L. (1988). When you're hot, you're hot! Warm-cold effects in first impressions of persons and teaching effectiveness. *Journal of Educational Psychology, 80*, 118-121.

Wilson, R. (1998). New research casts doubt of value on student evaluations of professors. *Chronicle of Higher Education, 44,* A12-A14.

Wood, J. V., & Taylor, K. L. (1991). Serving self-relevant goals through social comparison. In J. Suls & T. A. Eills (Eds.), *Social comparison: Contemporary theory and research* (pp. 23-50). Hillsdale, NJ: Erlbaum.