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The Relationship between Physical Attractiveness of Professors and Students' Ratings of Professor Quality

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Abstract

The present study contributes to the literature on physical attractiveness of professor and student evaluations by exploring attractiveness as a continuous variable. To do so, the website www.ratemyprofessors.com was utilized. The purposes of the present study were to determine if: (a) the student's perceptions of physical attractiveness (i.e., the number of hot ratings) were significantly correlated with professor ratings of quality and (b) the level of attractiveness (i.e., the percentage of hot ratings) was significantly correlated with professor ratings of quality. Results indicated that professor attractiveness was correlated with professor's overall quality, helpfulness, and clarity in the classroom.

Introduction

Physical Attractiveness

Literature on the topic of attractiveness is quite extensive and research has consistently documented that individuals are judged (and sometimes treated) according to their level of physical attractiveness. Specifically, attractive people are considered to have more socially desirable characteristics (e.g., Dion, Berscheid & Walster, 1972; Eagly, Ashmore, Makhijani, & Longo; 1991; Feingold, 1992) than less attractive people. This finding extends to many facets of life. For example, Down and Lyons (1991) had police officers, serving as confederates, rate the attractiveness of male and female defendants. Researchers then compared the police officers' ratings of attractiveness with bails and fines set by the judges. Results indicated that level of attractiveness of the defendant was not a factor when dealing with felonies. However, for misdemeanors, the level of attractiveness was a factor in bail and fine amounts, with attractive individuals receiving lower bail and fine amounts. Level of attractiveness has also been correlated with financial income. For example, Frieze, Olson, and Russell (1991) surveyed MBA graduates over a ten year time period and found a relationship between facial attractiveness and starting salaries and future salaries. Specifically, for men, attractiveness increased starting salaries and the amount of money earned over time. For women, attractiveness did not influence starting salaries, but did influence the amount of money earned over time. In addition, researchers calculated how attractiveness on a 5-point scale related to earnings. Results indicated that men earned $2,500 per increase in level of attractiveness on the scale and women earned $2,150 per increase.

Research has also been conducted to determine if children perceive attractive people differently than less attractive people. Research with children has found that attractiveness is related to perceptions of peers. Dion and Berscheid (1974) had children between the ages of four and six rate their peers. Results indicated that unattractive children were less popular, were seen more often demonstrating antisocial behaviors, and were perceived as being less independent than attractive children. More recently, research has found that physical attractiveness is: important for positive peer regard among adolescents (Becker & Luthar, 2007), perceived as a desirable characteristic by children aged 8 -17 (Ruiz, Conde, & Lorres, 2005), and used by infants as early as 6 months of age to categorize faces as attractive and unattractive (Ramsey, Langlois, Hoss, Rubenstein, & Griffin, 2004). Not only do children judge peers based in part on their physical attractiveness, but adults judge children on their physical attractiveness as well. Specifically, results showed that severe transgressions of an attractive child were less likely to be interpreted as an enduring trait and were evaluated less negatively than severe transgressions of an attractive child (Dion, 1972).

Research has also examined children's perceptions of attractiveness within a classroom setting. Hunsberger and Cavanagh (1988) presented 1st and 6th grade students with photographs of attractive and unattractive potential female teachers. Results indicated that students rated the attractive female teacher as being: nicer, happier, and

prettier. In addition, students reported believing they would learn the most from the attractive teacher. On the other hand, students rated the unattractive female teacher as being more likely to punish students for misbehaving. In a similar experiment, Goebel and Cashen (1979) presented students in grades 2, 5, 7, 11, and 13 pictures of teachers. Next, students rated the teachers on seven factors related to teacher performance. Results again found that unattractive teachers were rated lower than attractive teachers for students across all grade levels.

Ratings of Professors

If children rate potential teachers differently based on physically attractiveness, then do college student judge their professors' quality based on physical attractiveness? The literature examining what factors in general influence college students' evaluations of professors has identified numerous important variables. Examples include: student effort in the class (Heckert, Latier, Ringwald-Burton, & Drazen, 2006), rapport with students, intellectual excitement in classroom (Perkins, Schenk, Stephan, & Vrungos, 1995), instructor reputation (Griffin, 2001), expected course grade (Ginexi, 2003), fairness of grade distributions and grading procedures (Tata, 1999), and warmth of professor (Best & Addison, 2000). Additionally, Sheehan and DuPrey (1999) found that five items predict 69% of the variance in teaching effectiveness. These items were: (a) informative lectures, (b) assignments which were a good measure of course material, (c) prepared instructor, (d) interesting lectures, and (e) challenging course. Recent research on teaching effectiveness has investigated professors' behaviors that students report finding irritating. It is hoped that by identifying irritating behaviors that can possibly decrease rapport with students, teaching effectiveness can be improved (Malikow, 2007). However, the research examining professor attractiveness and student ratings is limited.

One study examining the impact of physical attractiveness on teacher evaluations had undergraduate seniors majoring in education as participants. The participants were presented with pictures of teachers and asked to rate the pictures on their level of competence. Contrary to previous findings with children, there was no difference in perceived competence based on attractiveness (Buck & Tiene, 1989). Recently, Riniolo, Johnson, Sherman, and Misso (2006) examined data available on www.ratemyprofessors.com to investigate if professors rated as physically attractive by students received higher student evaluations. The researchers gathered data from four separate universities and matched professors by department and gender. Results indicated that in fact those professors rated as attractive (i.e., "hot") received higher student evaluations that those professors rated as unattractive. However, when this data were collected, professors were classified into two categories ("hot" or "not hot") because the website did not provide information as to how many total hot ratings were submitted. This creates an artificial situation where attractiveness has two polar opposites, rather than attractiveness ranging along a continuum.

The present study contributes to the literature by examining the relationship between physical attractiveness of the professor and student evaluations by exploring attractiveness as a continuous variable. To do so, the website www.ratemyprofessors.com again utilized now that it allows users to access not only the total number of ratings, but also the total number of attractiveness ratings (i.e., hot ratings) for each rated professor. This is unlike the previous work by Riniolo, et al. (2006) using www.ratemyprofessor.com in which the website only gave user information about a professor as a dichotomous rating scale (i.e., the professor is "hot" or "not hot"). Currently, the www.ratemyprofessor.com website indicates to users the total number of ratings for a professor (e.g., 54) and the total number of users who rated that professor as "hot" (e.g., 28).

Therefore the purposes of the present study were two-fold. First, the study assessed the relationship between student's perceptions of physical attractiveness (i.e., number of hot ratings) and ratings of professor quality. Second, although the overall number of hot ratings informs researchers about the relationship between student's perceptions of physical attractiveness and professor ratings, it does not take into account the total number of ratings made for each given professor. Therefore, a professor with 30 hot ratings out of 100 total ratings is seen as equivalent to a professor with 30 hot ratings out of 40 total ratings, even though the level of attractiveness is higher for the second professor as compared with the first. As a result, the second purpose of the study was to determine the relationship between the professor's level of attractiveness, defined as the percentage of hot ratings to the total number of ratings for a professor, to professor ratings.

Method

Participants

The current study utilized the website www.ratemyprofessors.com to obtain student ratings of professors. This website contains over 6.3 million ratings for professors from 6,000 colleges and universities. Therefore, a decision had to be made with regard to selecting a sample. The researchers decided to sample the 118 colleges and universities holding NCAA Division I football status (See Table 1 for a complete list of colleges and universities) because these colleges and universities are all required to meet similar standards (e.g., academic enrollment and financial aid provided), thus providing a comparable sample. In addition, only professors from Psychology Departments were included[1]. Data were collected from January 2007 to May 2007 resulting in a total of: 117 colleges and universities[2], 5070 psychology professors rated, and 46,040 total numbers of ratings.

Instrument and Procedure

For each professor, data were collected on the following measures: total number of ratings, overall quality, average easiness, average helpfulness, average clarity, and total number of hotness ratings. The website defines easiness by asking the student to think about "How easy are the classes that this professor teaches? Is it possible to get an A without too much work?" The website states that the category of helpfulness rates "the professor's helpfulness and approachability." For clarity, students are given the following questions: "How well does the professor convey the class topics?," "Is the professor clear in his presentation?," and "Is the professor organized and does the professor use class time effectively?" The overall quality rating is the average of a teacher's helpfulness and clarity ratings. The website clearly states that easiness is NOT used to calculate overall quality. Overall quality, easiness, helpfulness, and clarity are all given a score on a 5-point Likert scale, with the website indicating that higher numbers equaling better ratings. Finally, students are given the option to rate the appearance of the professor (stated to be as "just for fun") by checking the "hot" or "not" option.

Results

A series of Pearson correlations were conducted to determine the relationship of student perceptions of hotness to student ratings of a professor's: overall quality, average easiness, average helpfulness, and average clarity[3]. Initial analyses were conducted using all professors from the 117 colleges and universities, resulting in 5070 professors. Results indicated that a professor's hotness was significantly correlated with professor's overall quality [r (5068) = .168, $p < .01$], average easiness [r (5068) = .102, $p < .01$], average helpfulness [r (5068) = .182, $p < .01$], and average clarity [r (5068) = .053, $p < .01$].

However, these results included all professors on ratemyprofessors.com, including those professors with only a few ratings. Next, Pearson correlations were conducted evaluating only those professors with at least 25 ratings. Justification for such analyses comes from March and Roche (1997) who have indicated that there is high reliability between class average responses with at least 25 ratings and this is consistent with prior research on the ratemyprofessors.com website (Riniolo, et al., 2006). The resulting correlations therefore used only 387 professors that had at least 25 ratings or more. Results again indicated that a professor's hotness was significantly correlated with a professor's overall quality [r (385) = .367, $p < .01$], average easiness [r (385) = .111, $p < .05$], average helpfulness [r (385) = .369, $p < .01$], and average clarity [r (385) = .134, $p < .01$].

A clearer picture of the impact of perceived hotness on the four dependent variables becomes evident when evaluating total number of hotness rating to overall number of ratings. The resulting percentage provides an overall hotness rating that takes into account those students who did not rate the professor as hot. The resulting variable provides a level within a continuous scale of perceived attractiveness for each professor. Therefore, Pearson correlations using those 387 professors that had at least 25 ratings were conducted. Results indicated that the percentage of hotness rating to overall ratings significantly correlated with three of the four dependent variables. Specifically, a professor's overall quality [r (385) = .419, $p < .01$], average helpfulness [r (385) = .426, $p < .01$], and average clarity [r (385) = .151, $p < .01$] were significantly correlated with the percentage of hotness rating to overall ratings.

Discussion

[1] Again, a decision about the sample was made. Psychology professors were chosen due to its popularity among college students as a major in the US.

[2] Although 118 colleges and universities were selected for the study, the United States Naval Academy was not included due to there being no students' ratings for the psychology department.

[3] The alpha level used to report statistical significance was set prior to data analyses at the .05 level. A Bonferroni correction was not utilized due to the exploratory nature of the study.

Consistent with previous findings, the current study showed that a professor's perceived hotness (attractiveness) impacted perceived quality of a professor. Specifically, results indicated that as hotness ratings increased, so did ratings on overall quality, clarity, and helpfulness. Additionally, further analysis indicated that the greater the percentage of hotness ratings to overall ratings, the more likely that students rated the professors favorably.

Interestingly, although measures of ease, clarity, and helpfulness were obtained, only the latter two ratings were impacted by perceived hotness. Simply, the data indicated that although a professor may be perceived as hot, this does not impact their level of ease in the classroom. Rather, the professor's level of hotness was more related to the professor's perceived clarity in the class and his/her perceived helpfulness inside and outside of class. Several possibilities exist to explain these results. It could be the case that those professors who are perceived as hot are indeed clearer and are more helpful in class. However, a more likely explanation is that because a professor is perceived as hot, the students are more likely to (1) pay more attention to the professor during class increasing their understanding of the material, achieving clarity and (2) seek help from those professors they perceive as attractive thereby increasing their perceptions of helpfulness. Thus, the perception of hotness might alter the students' interactions with the professor leading to more positive ratings within the classroom. However, no matter what the reason, the fact remains that professors who are viewed as attractive receive higher ratings in overall quality, clarity, and helpfulness. Therefore, based on the results it would appear that something beyond a person's control (i.e., attractiveness) has potentially a greater impact than many variables that are within a person's control (e.g., teaching philosophy) when it comes to student perceptions of a professor's quality.

Limitations & Future Research

As with any study, limitations to the current study were present. First, results are correlational and due not imply causation. Second, although the ratings were obtained over a three month period, the sample of the raters could be problematic. To begin, demographic information such as race and gender of the professors and student raters were not collected. In addition, since this website does not maintain control over who posts ratings, individual raters could have made multiple ratings for the same professors, which would obviously skew the results. Furthermore, the website is designed to be used by students who are looking to gain information about professors. Typically, with this type of reporting system, raters will fall into the extreme ends of categorization (i.e., those who are very happy with their professor and those who are very upset with their professor). Again, this leads to a sampling bias which could influence results.

Third, although it is assumed the ratings are of professors in each department, this may not be the case. The ratemyprofessors.com website does not distinguish between those who are professors and those who are graduate students. Similarly, it does not distinguish between tenure track and adjunct faculty members. And finally, the level of expertise of the professor being rated within their teaching and discipline is unknown.

Future research should examine if those professors who are rated as attractive by students (pictures are available on websites) are considered to be attractive when compared with to others individuals outside of academia. In other words, are these professors perceived as attractive in all areas of life or only within the area of academia? Finally, future research should investigate if student learning is influenced by perceived attractiveness of the professor. This may in fact be the most important next step to take in this line of research for the following reasons. If attractiveness is correlated with measures of teaching quality, how is a professor to control his/her attractiveness level? It would be encouraging to find that attractiveness of professors does not influence student learning. In such a case, it should be recommended that students' evaluations also take into account student learning and limit the impact of professor attractiveness.

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Table 1
List of Colleges and Universities

University of Akron	University of Georgia
University of Alabama at Birmingham	Georgia Institute of Technology
University of Alabama, Tuscaloosa	University of Hawaii, Manoa
University of Arizona	University of Houston
Arizona State University	University of Idaho
Arkansas State University	University of Illinois, Champaign
University of Arkansas, Fayetteville	Indiana University, Bloomington
Auburn University	University of Iowa
Ball State University	Iowa State University
Baylor University	University of Kansas
Boise State University	Kansas State University
Boston College	Kent State University
Bowling Green State University	University of Kentucky
Brigham Young University	University of Louisiana at Lafayette
California State University, Fresno	University of Louisiana at Monroe
University of California, Berkeley	Louisiana State University
University of California, Los Angeles	Louisiana Tech University
University of Central Florida	University of Louisville
Central Michigan University	Marshall University
University of Cincinnati	University of Maryland, College Park
Clemson University	University of Memphis
University of Colorado, Boulder	University of Miami (Florida)
Colorado State University	Miami University (Ohio)
University of Connecticut	University of Michigan
Duke University	Michigan State University
East Carolina University	Middle Tennessee State University
Eastern Michigan University	University of Minnesota, Twin Cities
University of Florida	University of Mississippi
Florida Atlantic University	Mississippi State University
Florida International University	University of Missouri, Columbia
Florida State University	

Table 1 Continued
List of Colleges and Universities

University of Nebraska, Lincoln	Stanford University
University of Nevada, Las Vegas	Syracuse University
University of Nevada	Temple University
University of New Mexico	University of Tennessee, Knoxville
New Mexico State University	Texas A&M University, College Station
North Carolina State University	Texas Christian University
University of North Carolina, Chapel Hill	Texas Tech University
University of North Texas	University of Texas at Austin
Northern Illinois University	University of Texas at El Paso
Northwestern University	University of Toledo
University of Notre Dame	Troy University
Ohio State University	Tulane University
Ohio University	University of Tulsa
University of Oklahoma	U.S. Air Force Academy
Oklahoma State University	U.S. Military Academy
University of Oregon	U.S. Naval Academy
Oregon State University	University of Utah
Pennsylvania State University	Utah State University
University of Pittsburgh	Vanderbilt University
Purdue University	University of Virginia
Rice University	Virginia Polytechnic Institute & State University
Rutgers, State Univ of New Jersey, New Brunswick	Wake Forest University
San Diego State University	University of Washington
San Jose State University	Washington State University
University of South Carolina, Columbia	West Virginia University
University of South Florida	Western Michigan University
University of Southern California	University of Wisconsin, Madison
Southern Methodist University	University of Wyoming
University of Southern Mississippi	