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Self-esteem and the underdog : why stability of self-esteem matters in social situations

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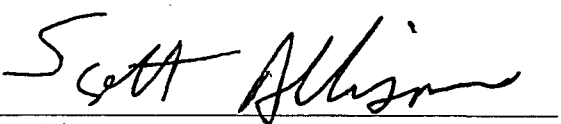
Abstract

Differences related to self-esteem and their possible influences on perceptions of underdogs were investigated. Global self-esteem and stability of self-esteem were evaluated using The Rosenberg Self-Esteem Scale. Participants' self-esteem was threatened by using the false feedback technique. Finally, perceptions of a competition between an underdog and a top dog were evaluated. The results demonstrated that although participants with stable and unstable self-esteem favor the underdog, participants with unstable self-esteem favor the underdog even more than the participants with stable self-esteem. The findings reinforce the robustness of the underdog effect and highlight a consequence of having unstable self-esteem.

I certify that I have read this thesis and find that, in scope and quality, it satisfies the requirements for the degree of Master of Arts.



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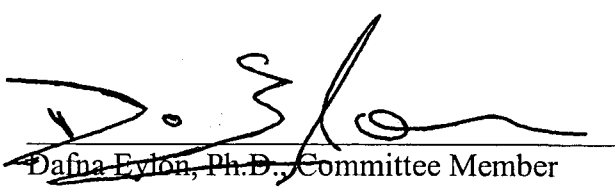

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SELF-ESTEEM AND THE UNDERDOG: WHY STABILITY OF SELF-ESTEEM MATTERS IN SOCIAL SITUATIONS

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Self-Esteem and the Underdog: Why Stability of Self-Esteem Matters in Social Situations

The American Dream means different things to different people. For many, it means obtaining a job that can lead to becoming financially comfortable or even wealthy. In short, it means doing well for oneself and being successful. In the news, it is constantly reported that people are trying to make it to America, the land of opportunity, in order to live the American Dream. Within the United States, societal influences promote capitalism, making something out of oneself and being at the top of one's game. In this context, it is inevitable for people to experience failure and setbacks more often than success.

Most people do not become as successful or as wealthy as people like Bill Gates, Donald Trump, Oprah or Ellen DeGeneres. Rather, most people think of themselves as the "little guy" or "the low person on the totem pole" at work. The average person is likely to experience frequent failures or setbacks while striving to achieve success, especially early in life when people lack experience. As people get older, the reality that there is someone smarter, wealthier or more successful becomes more apparent. Even many of the people who make it to the top and are living the most lavish American Dream have faced struggles and formidable challenges. The term *underdog* has become commonly used to refer to those who are not expected to succeed or are at a disadvantage.

Given the pervasiveness of underdog experiences, success stories become attention grabbing and exciting to hear about. Many people can easily take the

perspective of those who are competing against great odds and learning that great odds were overcome serves as a powerful source of inspiration and motivation. Thus, stories of triumphant underdogs are an integral part of American culture. In the classic children's story, "The Little Engine That Could" people are inspired to feel support and sympathy for the little engine as she slowly pulls the train up the hill. When the little engine successfully makes it over the hill, people are inspired to feel motivated that they too can overcome great obstacles. Movies such as Seabiscuit, Erin Brockovich, Rudy, and Ever After (the modern day Cinderella story), are popular and exciting portrayals of victorious underdogs. Thus, in American culture there is a fundamental appreciation of facing struggle and a fundamental trend to experience feelings of support, sympathy and identification when witnessing the obstacles underdogs face.

Previous Social Psychology Research

An abundant amount of literature exists in social psychology that states that people are more likely to associate with those who are accomplished and successful rather than associate with underdogs who are not as accomplished or successful. Research on "basking in reflected glory," or BIRGing, presents persuasive reasons for the phenomenon of associating with winners (Cialdini, Borden, Thorne, Walker, Freeman & Sloan, 1976).

Cialdini et al. (1976) explain that there is considerable anecdotal evidence of the tendency to publicly announce one's associations with those who are successful. For example, Cialdini et al. describe how various localities including cities and universities often publicize their link to famous people who live or have lived in the city or have

graduated from one of the university's programs. Cialdini et al. explain that BIRGing occurs in order for a person to share in the glory reflected by those who are successful and proceeded to perform three field experiments about the tendency to publicly announce one's associations with those who are successful.

In the first field experiment, the apparel of students attending Introduction to Psychology at seven large universities was covertly monitored during football season. Cialdini et al. (1976) found that college students were more likely to wear college team apparel following a football game when the college team had won. Conversely, college students were less likely to wear college team apparel following a game when the college team had lost.

In the second field experiment, students at a large state university were contacted randomly to participate in a phone survey midway through football season. Students were asked to describe the outcome of a specific football game in which half of the students were asked about a game that the experimenter's knew the team had lost and half were asked about a game that the experimenter's knew the team had won. Cialdini et al. (1976) found that college students were more likely to use the pronoun "we" in describing their school's football team when the team had won a recent game. Conversely, the college students were less likely to use the pronoun "we" in describing their school's football team when the team had lost a recent game. For example, "we won" and "they lost" were common responses from the college students.

In the third field experiment, students at another large state university were contacted randomly to participate in a phone survey midway through football season.

Students were asked to describe the outcome of two specific football games. The experimenter's were aware that the football team had lost one of the football games and had won the other football game. Similar to the second field experiment exploring the BIRGing tendency, Cialdini et al. (1976) found that college students remained more likely to use the pronoun "we" in describing their school's football team in reference to the game that the team had won. Conversely, the college students remained less likely to use the pronoun "we" in describing their school's football team in reference to the game that the team had lost.

Overall, Cialdini et al. (1976) demonstrated that students wanted to associate themselves with a winning team and dissociate themselves from a losing team. Thus, research on BIRGing suggests that people like to make others aware of associations with positive sources despite the fact that they did not cause the source's success. Cialdini et al. believe that the reason for the association with successful sources has to do with Heider's balance theory (1958).

Heider (1958) discussed different types of perceived relations between things, one of which he referred to as a unit relationship. In his description of unit relations, Heider proposed that a common relation exists in which people imply that things are connected in some manner and that connected things are evaluated similarly. An example of a unit relationship is the perception of a university affiliation. Specifically, when an observer evaluates a university's football team positively, the observer would then evaluate a university student positively as well in order to keep their cognitive systems in balance.

Thus, people are aware that their public image can be seen more positively if they associate themselves with winners.

Research about interpersonal attraction also exists in social psychology that substantiates the association with those who are winners rather than association with underdogs who are not as accomplished or successful. Research on likability based on winner/loser status presents persuasive reasons for the phenomenon of associating with winners (Lott & Lott, 1986).

Lott and Lott (1986) explain that a considerable amount of social psychological literature says that reactions to people are influenced by personal qualities as well as group status characteristics, such as social class, race and gender. Lott and Lott proceeded to explain that new evidence suggests that prestige may be a more powerful characteristic than other characteristics. For example, social class or occupational status can take precedence over race or gender when making judgments as to whether or not we like others.

Lott and Lott (1986) focused their attention on exploring the relationship between winner/loser status and interpersonal attraction. Women and men were approached randomly in shopping malls and asked to read a newspaper article about a person and make some judgments about the person described in the newspaper article. Several indirect measures of interpersonal attraction were used to assess liking for the person in the story.

Lott and Lott created four different newspaper articles that were similar in length and varied in gender, race, and winner/loser situation. The winner/loser situation was

manipulated through story descriptions that ranged from highly positive situations to highly negative situations. Lott and Lott summarized the stories as follows:

1. Announcement of the selection of a new executive manager for a public television channel, along with a description of this person's fine credentials, background, and personal interests.
2. Announcement of the election of the new PTA president of the high school, with a description of the person's excellent qualifications, contributions to the community, and interests.
3. Announcement of a hit and run accident, with the identification and description of the victim who had been walking along the highway when hit by an automobile.
4. Announcement of the arrest of a person (who refused to take a breathalyzer test) on the charge of reckless driving for running into and injuring a 14-year-old boy. (p.505)

The results of Lott and Lott (1986) indicated that people described in winning positive situations were significantly more likable and more attractive than people described in losing, negative situations. The results also indicated that this winner/loser status took precedence over gender and race (Lott & Lott, 1986). Thus, research on winner/loser status suggests that descriptions of people in winning, positive situations have a strong influence on likability and interpersonal attraction. Lott and Lott believe that the reason for the strong influence of winner/loser status has to do with Lerner's "just world" hypothesis (Lerner & Miller, 1978).

In the "just world" hypothesis, Lerner proposes that people tend to believe that we live in a just world where people deserve their fate (Lerner & Miller, 1978). Lott and Lott (1968) suggest that as a result, people may have a tendency to believe that winners and losers deserve their fate. Lott and Lott state that "those in the positive, winning situations must be good people with positive characteristics (therefore likable), whereas those in negative, losing situations must be bad people with negative characteristics (therefore not likable)" (p.510). Thus, people are more attracted to and find that they have a better liking for people who are winners rather than those who are known for losing, such as underdogs.

Given the evidence from BIRGing and winner/loser status, why would people tend to show support for underdogs? Is the evidence from BIRGing and winner/loser status competing with the idea that people support underdogs? Thinking back to the classic children's story, "The Little Engine That Could," people are inspired to feel support and sympathy for the little engine as she trudges up the hill. However, people are also inspired to feel motivated that they too can overcome great obstacles once the little engine successfully makes it over the hill. Thus, people may experience feelings of support and sympathy for an underdog while witnessing an underdog face a challenge or obstacle. Once an outcome is known, people may also relate to a winner in order to feel inspired and motivated. Rather than evidence from BIRGing and winner/loser status competing with the idea that people support underdogs, evidence from BIRGing and winner/loser status complement the idea that people support underdogs. The time when

people show support for an underdog may occur before an outcome is known, while BIRGing and attraction to winners takes place after an outcome is known.

Underdog Research

Although people demonstrate a tendency to associate with winning teams and successful people, people also appear to root for underdogs. Most people are likely to experience and observe numerous underdog challenges in their daily lives and therefore may be able to relate to others who face similar obstacles. Markus, McGuire, Allison and Eylon (2004) suggest that people do in fact show support for social entities that are underdogs and have termed this phenomenon as the underdog effect. Markus et al. (2004) define the term underdog as a social entity with a disadvantage to a social entity it is competing against. For instance, if someone is leisurely sitting at home watching television and stumbles upon a sporting event, the team that is not favored to win may be seen as the underdog relative to the top dog, or the team that is favored to win, perhaps because the top dog team has more powerful and experienced players than the underdog team. Therefore, since one team has been categorized as more of an underdog, the person watching the sporting event may tend to show more of a preference toward this underdog team because witnessing the challenges that the underdog faces may trigger feelings of sympathy and identification.

Markus et al. (2004) conducted four experiments to offer support for the underdog effect. In the first experiment, participants were asked to read a short vignette describing an upcoming basketball game between the University of Wyoming and the University of Montana. The two universities are evenly matched in one of the vignettes. Three other

vignettes existed which described a discrepancy between the two teams, with varying degrees of advantage/disadvantage. Participants were then given a questionnaire that measured their impressions of the situation. The results demonstrated that participants rooted for the underdog in judgments of opponents participating in an athletic competition.

In the second experiment conducted by Markus et al. (2004), participants were asked to read a short vignette describing two construction businesses. The vignette described two construction companies in the same town who compete for business. One company received about 75% of the town's business whereas the second company received about 25% of the business. Participants were told that a bank was looking to hire one of the companies to build a new branch of the bank and that he bank had not yet decided which of the two construction companies to hire. Participants were then given a questionnaire similar to the first experiment that measured their impressions of the situation. The results demonstrated that participants rooted for the underdog in judgments of opponents participating in a business competition.

In the third experiment conducted by Markus et al. (2004), the underlying process that may influence individuals' tendency to root for an underdog was examined. Specifically, the rooting process of affiliated observers when their team held an advantage or disadvantage relative to an outgroup team was explored. Four vignettes were used that described a discrepancy between two teams, with varying degrees of advantage/disadvantage, in which the affiliated team was either at an advantage or disadvantage relative to the outgroup competitor. The participants were Virginia

Commonwealth University (VCU) students, thus the affiliated team was from VCU. Participants were then given a questionnaire that measured their impressions of the situation.

VCU students expressed strong tendencies to root for their team when it held an advantage over its competitor. Results from a mediation analysis demonstrated that identification plays a major role in this process, such that VCU students highly identified with their team when it was a top dog, but did not identify with their team when it was an underdog at an extreme disadvantage. This pattern suggests that identification plays a significant role in the degree to which people root for competing social entities.

The fourth experiment conducted by Markus et al. (2004) again examined the underlying process that may influence individuals' tendency to root for an underdog. Rather than examining the rooting process of affiliated observers, Markus et al. examined the underlying process of a detached observer's decision to root for and support the underdog. Half the participants read a vignette about two evenly matched tennis players and half read a vignette in which one tennis player was at a disadvantage relative to the other. Similar to the third experiment, results demonstrated that identification plays a major role in the process of rooting for an underdog. Thus, Markus et al. provide evidence that people appear to support and identify with underdogs in social situations.

Various studies conducted in the underdog research area also provide evidence for the underdog effect. The results of a study exploring the role of effort (Dyjak et al., 2004) showed that the underdog effect was replicated for underdogs who gave full effort in an athletic competition. However, the results also showed that the reverse pattern

occurred for underdogs who gave less effort. That is, participants no longer rooted for the underdog when underdogs did not show much effort in an athletic competition. Thus, people have certain expectations for underdogs such that underdogs must have the characteristic of showing high effort in order for people to show support.

In a study exploring the role of unethical behavior (Eylon et al., 2004), results showed that a double standard exists for underdogs and top dogs. Participants read a scenario about an ice cream store portrayed as an underdog and an ice cream store portrayed as a top dog. A recipe book from one store was found by the other store and it was hinted that there was a possibility for the recipe to be used. Results showed that when unethical behavior occurred by the underdog and top dog, participants were more likely to judge the top dog as more unethical than the underdog. Participants also reported that it was more important for the top dog to behave ethically than the underdog. Thus, people have certain feelings towards underdogs, such that the top dog is held to a higher standard in regard to unethical behavior.

In a study that tested for the underdog effect using computerized representations of an underdog (Allison et al., 2004), results demonstrated that participants show support for circles struggling over a hill. Importantly, the results demonstrated how engrained the concept of an underdog is in the human psyche. Four different conditions were used. The first two conditions included a single circle – with one circle struggling over the hill and the other circle not struggling over the hill. The third and fourth conditions included two circles. In the third condition, one circle moved faster over the hill. In the fourth condition, one circle bumped the other circle back down the hill while it continued over

the hill. In all conditions, participants showed support for the underdog circle, however, the most support was shown in the fourth condition, in which the top dog circle showed harm toward the underdog circle. Thus, people have strong mental representations of underdogs such that computer designed circles evoke feelings and support for the underdog.

Given that people tend to show support for underdogs and have certain feelings toward underdogs, it is important to explore the reasons or theories that explain why people show support and have certain feelings. An important psychological theory underlying underdog feelings and expectations is the social identity theory. Tajfel and Turner describe the social identity theory as categorizations made by people that place themselves and others into different social groups as a means of developing self-identity and meaningful social comparisons (Tajfel & Turner, 1979; Tajfel & Turner, 1986). Thus, in-groups are created in which categorizations that enhance self-identity or increase motivation become one's in-group. Conversely, out-groups are created in which categorizations that do not enhance self-identity or decrease motivation become one's out-group. For instance, often times when people meet each other for the first time, they inquire about where the other person is from. Part of a person's identity therefore is where they are from and people categorize themselves and others based on this information. Therefore, part of a person's in-group may consist of people who are from their hometown.

Research has shown that individuals are most likely to show support for people with whom they identify (Olsen, Granzin, & Biswas, 1993). For instance, if a person

grew up in Buffalo, New York, they may show support or root for a sports team such as the Buffalo Bills. The person roots for the Buffalo Bills because they grew up in Buffalo and therefore identify with the team from Buffalo. The team is one of the person's in-groups and the person shows support for the team because they are identifying with one of their in-groups.

When a person does not have some sort of affiliation with a team or other social entity, the question arises as to who a person will show support for. Since pervasive experiences and exposures are highly available in memory, (Tversky & Kahneman, 1973) it is reasonable to deduce that the underdog category is highly available in memory and that the underdog category becomes the in-group, the group with which the observer most identifies, for many people.

Self-Esteem Research

It is important to consider individual differences in the context of the underdog effect, that is, to illuminate the conditions under which the underdog effect is heightened as well as eliminated. Recent developments in research on self-esteem draw attention to the individual differences related to self-esteem and their possible influences on perceptions of underdogs. Thus, self-esteem may play an important role in individual differences in people's tendency to support an underdog.

Past research has looked exclusively at the effects of people with high self-esteem versus people with low self-esteem. High self-esteem has been anchored in feelings of overall self-liking, self-worth and self-respect (Brown, 1993). Historically, research portrayed individuals with low self-esteem as sad and discontented, however, research

from the 1980's portray these individuals as being unsure with predominantly neutral feelings (Baumeister, Tice & Hutton, 1989).

Current researchers suggest that self-esteem is more complicated than previously thought. More important than the simple degree of self-esteem is whether or not a person holds "true" self-esteem or "contingent" self-esteem (Deci & Ryan, 1995). Those who have contingent, or unstable, self-esteem differ from those who hold true, or stable, self-esteem in that they depend on continual validation as a gage for formulating their self-worth (Greenier et al., 1999). For instance, those who hold unstable self-esteem tend to place a great amount of weight on meeting specific expectations. For example, an employee may expect to receive an annual raise in their salary for good performance. If the employer informs the employee that their performance was not good enough to receive a raise after a particular year, an employee with unstable high self-esteem will experience more of a reduction in their overall self-esteem than an employee with stable high self-esteem. Thus, achieving specific outcomes has great influence on overall self-esteem. In contrast, overall self-esteem for people with stable self-esteem tends not to be affected by isolated events. That is, individuals with stable self-esteem have little reason to feel threatened by provocations, because they are secure in their self-view and less sensitive to evaluative information (Kernis, Grannemann, & Barclay, 1989).

Greenier et al. (1999) conducted an experiment to offer evidence of how unstable self-esteem is affected by specific positive and negative events. In order to assess self-esteem level and stability, participants filled out the Rosenberg Self-Esteem Scale and a modified Rosenberg Self-Esteem Scale twice a day for a week. Next, Greenier et al.

explained that "Participants recorded the most positive and most negative events that occurred each day Monday through Thursday for a period of 2 weeks. "They then indicated the extent to which each event made them feel better or worse about themselves" (p.186).

The results demonstrated that those with unstable self-esteem were more impacted by daily events. Specifically, Greenier et al. (1999) found that negative events made participants with unstable self-esteem feel significantly worse about themselves. For example, a participant may have reported that the most negative event for the day was overhearing an instructor say something negative about their performance. The participant with unstable high self-esteem would report that this event made them feel much worse about themself. Conversely, positive events made participants with unstable self-esteem feel significantly better about themselves. Thus, those with unstable self-esteem are more vulnerable to daily negative and positive events.

Furthermore, Paradise and Kernis (2002) explain that people with unstable self-esteem are inclined to adopt a defensive orientation to prevent aversive feelings that arise from constant shifts in feelings of self-worth. Specifically, this defensive orientation would be adopted when a person is faced with a threat to their self-esteem. In contrast, people with stable self-esteem do not adopt a self-protective orientation because they do not face the continual shifts in feelings from daily events. For example, if an employee were to receive criticism from their supervisor, an employee with stable high self-esteem would not feel threatened by the criticism and may instead see the criticism as

constructive feedback. Thus, the employee would not experience a change in their level self-esteem as a result of the criticism.

Contemporary research supports the view that multiple forms of self-esteem exist and that differing forms have differing effects (Kernis, 2003). For example, people can have unstable high self-esteem, stable high self-esteem, unstable low self-esteem and stable low-self-esteem. Research suggests that the level of self-esteem can be conceptualized as a baseline self-view whereas stability of self-esteem can be conceptualized in terms of the amount of short-term fluctuations in one's global self-evaluation (Kernis, Grannemann, & Barclay, 1989). The group of individuals most often studied in the self-esteem literature are those with unstable high self-esteem. In particular, literature suggests that those with unstable high self-esteem are the most volatile group of people. Kernis, et al., (1989) gave self-esteem measures to their participants on multiple occasions. These scores were then used to predict responses on an inventory of anger and hostility. The results indicated that the highest levels of self-reported anger and hostility were associated with participants who had high but unstable self-esteem scores Kernis et al., (1989).

Thus, when those with unstable high self-esteem are presented with a threat, a wide range of aggressive behaviors may result (Baumeister, Smart & Bowden, 1996). These behaviors may be aggressive in order to prevent aversive feelings that arise from a negative shift in feelings of self-worth. For example, if an employee is denied a promotion by their supervisor, the employee may experience negative feelings and doubt about themself. As a result, the employee may act aggressively toward the supervisor by

pointing out the faults of the supervisor or spreading rumors about the supervisor to other employees. Thus, after engaging in aggressive behavior, the employee may start to feel better about themself.

Research has shown that those with unstable low self-esteem are motivated to have a self-protection orientation when self-esteem is threatened. That is, individuals with unstable low self-esteem can be similar to those with unstable high self-esteem in that they may react more strongly to self-esteem threats. Some research has shown contradictory results in which individuals with unstable low self-esteem do not self-protect when self-esteem is threatened (Kernis & Waschull, 1995). Thus, research pertaining to individuals with unstable low self-esteem is somewhat unclear.

Overall, research suggests that individuals with unstable self-esteem, regardless of level of self-esteem, are associated with an enhanced sensitivity to evaluative feedback, increased concern over one's self-view, and greater efforts to assign credit and blame for events (Kernis et al., 1989). Furthermore, research suggests that the stability of self-esteem may be more essential for self-esteem investigations than level of self-esteem because it highlights the magnitude of fluctuations in a person's global self-evaluations (Kernis, 2003).

The Present Research

The present research focused on exploring the relationship between unstable self-esteem and showing support for underdogs. Specifically, it was predicted that people with unstable self-esteem may not relate to underdogs when their self-esteem had been threatened. Recall that Greenier et al. (1999) found that negative events made

participants with unstable self-esteem feel significantly worse about themselves. Furthermore, Paradise and Kernis (2002) explain that people with unstable self-esteem are inclined to adopt a defensive orientation to prevent aversive feelings that arise from constant shifts in feelings of self-worth. Thus, it was predicted that people with unstable self-esteem may relate to top dogs as a mechanism to prevent aversive feelings.

Several hypotheses were made for the multiple forms of self-esteem (see Appendix A). Specifically, the main prediction was that the underdog effect would most likely be eliminated among people who have a combination of high and unstable self-esteem. In order to achieve a high sense of self-worth, it was hypothesized that people with *unstable high self-esteem* would show a preference for top dogs rather than underdogs when their self-esteem was threatened. That is, it was people with unstable high self-esteem would prefer successful people or groups in order to prevent aversive feelings of self-worth. In contrast, it was hypothesized that people with *stable high self-esteem* would show a preference for underdogs when their self-esteem was threatened because they would not be attempting to self-protect.

Similarly, it was hypothesized that people with *stable low self-esteem* would also prefer the underdog because they would not be trying to self-protect. Finally, people with *unstable low self-esteem* were viewed as unpredictable. At times they try to self-protect, however, this was not consistent in the self-esteem literature.

Method

Participants

The participants of the present study were undergraduate students at the University of Richmond. Participants were recruited from the Fall and Spring introductory psychology courses and received research participation credit for their participation. Participants were also recruited outside of the Psychology Department through an announcement placed on SpiderBytes, the daily e-mail forum for the University of Richmond community, and received $15 compensation for their participation. A total of 166 students signed-up to participate, however, 25 introductory students decided not to participate. Thus, a total of 141 students participated in the study.

In order to study the participants with extreme scores for level of self-esteem as well as stability of self-esteem, middle score data was eliminated. More specifically, scores at the 33rd and 66th percentiles were calculated and data from participants who scored between the 33rd and 66th percentiles was eliminated. Thus, a participant needed a score in the bottom 33% or the top 33% in order to qualify for the high or low self-esteem category as well as the stable or unstable self-esteem category. Once the middle score data was removed, the final sample included 75 participants. Of the 75 participants, 49% were categorized as having low self-esteem and 51% were categorized as having high self-esteem. For stability of self-esteem, 47% of the participants were categorized as having unstable self-esteem and 53% were categorized as having stable self-esteem. For type of false feedback, and 48% were given negative false feedback and 52% of participants were given positive false feedback.

Finally, participation was completely voluntary. The participants signed informed consent forms and were told that withdrawal of participation could take place at any time. All information was labeled and stored solely based on the anonymous subject numbers.

Materials

The materials for the present study included instruction packets for students describing the steps of the experiment, an online survey schedule, and general instructions. The Rosenberg Self-Esteem Scale (1965) was used to assess global self-esteem (see Appendix B). The scale is a 10-item measure of feelings of self–worth. Research has shown the scale to be well validated (Blascovich & Tomaka, 1991). A modified version of the Rosenberg Self-Esteem Scale was used to assess stability of self-esteem (see Appendix C). The modified scale contained added instructions of current feelings as opposed to overall feelings. The Blackboard Learning System TM (Release 6) was used in order for students to complete daily online surveys. The 1962 Quick Test of Intelligence manual was used to create a professional looking computerized IQ test (Ammons & Ammons, 1962) and false rankings of performance were used to threaten self-esteem (see Appendix D). A short survey about two ice cream companies was used to assess attitudes about underdogs (see Appendix E). Finally, a three room lab space with two computer stations was used in order for multiple participants to complete the experiment at the same time. One room was used for the computerized IQ test, another for filling out underdog surveys, and the third room was used for debriefing.

Design and Procedure

The present study consisted of three main phases. In phase 1, participants' global level of self-esteem (SE Level) as well as the stability of their self-esteem (SE Stability) was evaluated. In phase 2, participants' self-esteem was threatened in order to draw out behaviors related to unstable self-esteem. In phase 3, people's perceptions of a competition between an underdog and a top dog were evaluated.

For phase 1, an assessment of SE Level and SE Stability, a procedure consistent with previous research in the area of self-esteem was followed (Kernis, Grannemann & Barclay, 1989, Paradise & Kernis, 2002). First, in order to assess SE Level, participants completed the Rosenberg (1965) Self-Esteem Scale in a laboratory setting. Next, SE Stability was measured. Participants completed multiple assessments of current SE in naturalistic contexts. A modified version of the Rosenberg Self-Esteem Scale was used to assess SE Stability. Specifically, questions were modified with added instructions to base responses on how a participant felt at the moment. Participants were instructed to complete one survey in the morning and one survey in the evening for a period of five consecutive days. To ensure accurate results, participants anonymously completed the surveys online using the Blackboard Learning System. Participants were able to complete the surveys from any computer with internet access. Online surveys were available from 8am-11am and 8pm-11pm. Thus, online surveys only allowed participants to complete surveys during the times the surveys were made available.

Participants returned one week later to complete phase 2 in which self-esteem was threatened. The procedure to threaten self-esteem was consistent with previous

research (Fein & Spencer, 1997). First, participants completed a computerized test and received automatic computerized feedback. The test included a quick measure of intelligence in the context of an assessment of receptive vocabulary. Specifically, when a word appeared on the computer screen, participants were instructed to select a picture (out of four pictures) that best fit the word. In order to threaten self-esteem, participants received false feedback in the form of rankings. Specifically, half of the participants received positive false feedback and half received negative false feedback. The computer screen automatically displayed a performance ranking when the participant completed the test. Thus, a participant knew how they performed compared to other participants. For positive false feedback, the computer screen reported a ranking that placed the participant in the top 20th percentile. For negative false feedback, the computer screen reported a ranking that placed the participant in the bottom 20th percentile. Self-esteem was threatened for the participants receiving negative feedback.

For phase 3, assessment of people's perceptions of an underdog and a top dog, participants read a short scenario describing a competition in a business context. The scenario featured two companies, one of which was described as an underdog and the other as a top dog. Participants completed a brief survey measuring their attitudes about the two companies. Participants were immediately thanked and debriefed.

The present study was conducted on three separate occasions with each experiment spanning two weeks time. Participants who started the experiment on a Monday, returned to the laboratory the following Monday, and the same pattern continued for the remaining weekdays. In addition, in order to eliminate knowledge that

the phases of our study were intricately linked to one another, participants first read a sheet of paper containing a cover story. The use of a cover story is consistent with previous research (Fein & Spencer, 1997). The cover story stated that participants were taking part in a study of attitudes and circadian rhythms. This portion of the cover story applied to the self-esteem surveys and underdog survey. The cover story also stated that upon the second visit to the laboratory to finish the experiment, participants would be asked to complete a brief computerized scale that a colleague in psychology was developing.

The debriefing aspect of our study was consistent with previous research (Kernis, Brown & Brody, 2000, Fein & Spencer, 1997). It was immediately explained to the participants that false feedback was used and that performance rankings were never actually calculated. It was also explained that a cover story was used and that all three phases were part of one study.

Thus, there were three between-subject independent variables in the study: level of self esteem, stability of self-esteem and type of false feedback. For level of self-esteem, a score that ranged from 1 – 30 was calculated for each participant from the Rosenberg Self-Esteem Scale (1965) responses. For the Rosenberg Self-Esteem Scale, a higher score delineates a higher level of self-esteem and a lower score delineates a lower level of self-esteem. Recall that data from participants who scored between the 33rd and 66th percentiles was eliminated. Thus, a participant who scored in the bottom 33% was placed into the low self-esteem category and a participant who scored in the top 33% was placed into the high self-esteem category.

For stability of self-esteem, calculations were a bit more complicated. First, ten scores that ranged from 1 – 30 were calculated for each participant from the online modified Rosenberg Self-Esteem Scale (1965) responses. Subsequently for each participant, the standard deviation of the ten scores was calculated. Thus, a higher standard deviation delineated unstable self-esteem and a lower standard deviation delineated stable self-esteem. A participant who scored in the bottom 33% was placed into the stable self-esteem category and a participant who scored in the top 33% was placed into the unstable self-esteem category.

For type of false feedback, participants who received a ranking in the top 20^{th} percentile were placed into the positive false feedback category. Similarly, participants who received a ranking in the bottom 20^{th} percentile were placed into the negative false feedback category.

For the present study, a within-subject variable target was used to distinguish between preferences for the underdog and preferences for the top dog. Thus, the within-subjects variable target contained two levels specified as underdog and top dog. In addition, the dependent variables consisted of the perceived preferences of the business context competition including rooting, support, sympathy, and identification. Accordingly, participants were asked about their rooting, support, sympathy, and identification preference for the underdog as well for the top dog. For example, a participant was asked how strongly they would root for the underdog company directly followed by a question that asked the same participant how strongly they would root for the top dog company.

Analysis Plan

A multivariate analysis of variance (MANOVA) was conducted in order to test the significance of the effects of the independent variables on all of the dependent variables. More specifically, since each of the independent variables had two groups or levels, the MANOVA evaluated whether the means on the set of dependent variables varied across these groups or levels of the independent variables. For follow-up analyses to the MANOVA, the analysis of variance (ANOVA) was conducted. More specifically, four separate ANOVA's were conducted for each of the dependent measures in order to evaluate whether the group means on the dependent variable differed significantly from each other.

Results

Overall MANOVA

A 2 (SE level: high or low) x 2 (SE stability: stable or unstable) x 2 (false feedback: positive or negative) x 2 (target: underdog or top dog) repeated measures MANOVA was conducted using the four dependent measures of rooting, support, sympathy, and identification. The results revealed a significant multivariate main effect for stability of self-esteem, $F(8, 60) = 2.41, p < .05, \eta^2 = .24$. The means for the stability main effect scores are presented in Table 1. As Table 1 shows, the results demonstrate that although participants with stable and unstable self-esteem root, support, sympathize, and identify more with the underdog than the top dog, the participants with unstable self-esteem favor the underdog much moreso than the participants with stable self-esteem.

Separate Ratings of Targets

A 2 (SE level: high or low) x 2 (SE stability: stable or unstable) x 2 (false feedback: positive or negative) x 2 (target: underdog or top dog) repeated measures ANOVA was conducted on each dependent measure as follow-up to the overall MANOVA. The means for all of the dependent measures' significant two-way interactions with stability of self-esteem are reported in Table 2.

Rooting. The 2 x 2 x 2 x 2 ANOVA on the rooting measure revealed a significant main effect of target, $F(1,67) = 21.03, p < .01, \eta^2 = .24$, such that participants rooted for underdogs ($M = 5.14$, $SD = 1.55$) much more than they rooted for top dogs ($M = 3.65$, $SD = 1.54$). The results of this analysis also revealed a significant two-way interaction between target and stability of self-esteem, $F(1,67) = 4.17, p < .05, \eta^2 = .06$. These results indicate that participants with unstable self-esteem have a tendency to root more for underdogs and less for top dogs than the participants with stable self-esteem. In addition, the results revealed a marginally significant four-way interaction between target, level of self-esteem, stability of self-esteem, and false feedback, $F(1,67) = 3.18, p = .09, \eta^2 = .04$. The means for the four-way interaction rooting scores are presented in Table 3. As Table 3 shows, the results point toward a tendency for participants in two groups to root for the underdog much more than the other groups of participants. These two groups included the group of high, unstable self-esteem with negative feedback as well as the group of low, unstable self-esteem, with negative feedback.

Support. The 2 x 2 x 2 x 2 ANOVA on the support measure revealed a significant main effect of target, $F(1,67) = 6.11, p < .05, \eta^2 = .08$, such that participants supported

underdogs ($M = 4.87$, $SD = 1.56$) more than they supported top dogs ($M = 4.14$, $SD = 1.55$). This analysis also revealed a significant two-way interaction between target and stability of self-esteem, $F(1,67) = 3.97$, $p < .05$, $\eta^2 = .06$. These results indicate that participants with unstable self-esteem have a tendency to show more support for underdogs and less support for top dogs than the participants with stable self-esteem.

Sympathy. The 2 x 2 x 2 x 2 ANOVA on the sympathy measure revealed a significant main effect of target, $F(1,67) = 207.63$, $p < .01$, $\eta^2 = .76$, such that participants felt sympathy for underdogs ($M = 5.35$, $SD = 1.57$) much more than they felt sympathy for top dogs ($M = 2.60$, $SD = 1.20$). This analysis also revealed a significant two-way interaction between target and stability of self-esteem, $F(1,67) = 7.89$, $p < .01$, $\eta^2 = .11$. These results indicate that participants with unstable self-esteem have a tendency to show more sympathy for underdogs and less sympathy for top dogs than the participants with stable self-esteem.

Identification. The 2 x 2 x 2 x 2 ANOVA on the identification measure revealed a significant main effect of target, $F(1,67) = 39.07$, $p < .01$, $\eta^2 = .37$, such that participants identified with underdogs ($M = 4.77$, $SD = 1.42$) much more than they identified with top dogs ($M = 3.33$, $SD = 1.13$). This analysis also revealed a significant two-way interaction between target and stability of self-esteem, $F(1,67) = 5.69$, $p < .05$, $\eta^2 = .08$. These results indicate that participants with unstable self-esteem have a tendency to identify more with underdogs and identify less with top dogs than the participants with stable self-esteem.

Median Split Analysis. Because the sample size was greatly reduced when the data between the 33rd and 66th percentiles was eliminated, an analysis was conducted on the original data sample using a median split for the level of self-esteem variable as well as the stability of self-esteem variable. Specifically, a 2 x 2 x 2 x 2 ANOVA on the rooting measure was conducted. The results revealed a significant main effect of target, $F(1,67) = 40.68, p < .01, \eta^2 = .29$, such that participants rooted for underdogs ($M = 5.10$, $SD = 1.53$) much more than they rooted for top dogs ($M = 3.29$, $SD = 1.67$). The results of this analysis did not reveal any other significant main effects or interaction effects. These results indicate that participants have a tendency to root for underdogs much more than top dogs.

Discussion

Review of Hypotheses

It was hypothesized that the underdog effect would most likely be eliminated among people who have a combination of high and unstable self-esteem. Furthermore, in order to achieve a high sense of self-worth, it was hypothesized that people with *unstable high self-esteem* would show a preference for top dogs rather than underdogs when their self-esteem was threatened. That is, people with unstable high self-esteem would prefer successful people or groups in order to prevent aversive feelings of self-worth. On the contrary, it was hypothesized that people with *stable high self-esteem* would show a preference for underdogs when their self-esteem was threatened because they are not attempting to self-protect.

In regard to those with low self-esteem, it was hypothesized that people with *stable low self-esteem* would also prefer the underdog because they are not trying to self-protect. However, people with *unstable low self-esteem* seem to be unpredictable and therefore no prediction was made. At times they try to self-protect, however, this was not consistent in past research.

Summary of Results

An overall MANOVA was conducted using the four dependent measures of rooting, support, sympathy, and identification and the results demonstrated that the stability of self-esteem in participants had an impact on participants' scores. Specifically, although participants with stable and unstable self-esteem root, support, sympathize, and identify more with the underdog than the top dog, the participants with unstable self-esteem favor the underdog much moreso than the participants with stable self-esteem.

The results of the ANOVA conducted on the rooting measure revealed several outcomes. First, the results revealed that participants rooted for underdogs much more than they rooted for top dogs. Next, the results revealed that participants with unstable self-esteem had a tendency to root more for underdogs and less for top dogs than the participants with stable self-esteem. Finally, the results revealed marginal significance for a tendency of participants with high, unstable self-esteem with negative feedback as well as participants with low, unstable self-esteem, with negative feedback to root for the underdog much more than other participants.

The results of the remaining ANOVA's demonstrated similar patterns to each other. For the ANOVA conducted on the support measure, the results revealed that

participants supported underdogs more than they supported top dogs, and that participants with unstable self-esteem had a tendency to show more support for underdogs and less support for top dogs than the participants with stable self-esteem.

The results of the ANOVA conducted on the sympathy measure demonstrated that participants felt sympathy for underdogs much more than they felt sympathy for top dogs, and that participants with unstable self-esteem had a tendency to show more sympathy for underdogs and less sympathy for top dogs than the participants with stable self-esteem.

Finally, for the ANOVA conducted on the identification measure, the results revealed that participants identified with underdogs much more than they identified with top dogs, and that participants with unstable self-esteem had a tendency to identify more with underdogs and identify less with top dogs than the participants with stable self-esteem. Thus, the results demonstrate that the underdog is supported, rooted for, sympathized with, and identified with more than the top dog and especially for those participants with unstable self-esteem.

Differences between Hypotheses and Results

The hypotheses for the current research predicted that people with *unstable high self-esteem* would show a preference for top dogs when their self-esteem was threatened and that people with *stable high self-esteem* and *stable low self-esteem* would show a preference for underdogs when their self-esteem was threatened. This prediction was made based on the idea that people with unstable self-esteem are attempting to self-protect, while people with stable self-esteem are not attempting to self-protect. However,

the results from the overall MANOVA and the follow-up ANOVA's demonstrated somewhat of a reverse pattern. That is, participants with *unstable self-esteem*, tended to favor the underdog rather than the top dog.

Another difference occurred in regard to the group of participants that was expected to stand out from the other groups. The key group of participants that was expected to demonstrate a noticeable difference from other participants was the group of participants with *unstable high self-esteem.* In previous research, the people with unstable high self-esteem tended to be a volatile group of people who aggressed in order to prevent aversive feelings. However, the results of the overall MANOVA and the follow-up ANOVA's demonstrated that the key group of participants was the group of participants with *unstable self-esteem.* That is, participants with *unstable self-esteem* demonstrate noticeable differences from other participants regardless of their global self-esteem level.

Possible Reasons for Differences

The participants in the present study with *unstable self-esteem* demonstrated noticeable differences in their behavior from other participants. This would suggest that participants with unstable self-esteem appear to behave in ways that would attempt to maintain and/or enhance their self-esteem. However, it is unclear as to why would they root more for the underdog rather than aggress and root for the top dog.

The sociometer theory may shed some light in that it purposes an alternate line of thinking about self-esteem. The sociometer theory purposes that self-esteem is an adaptation designed to monitor social inclusion in interpersonal relationships (Leary,

Tambor, Terdal & Downs, 1995). Leary et al. (1995) explain that a person's self-esteem is an internal index or monitor of the degree to which the individual is being included or excluded by other people, and the motive to maintain self-esteem functions to protect the person against social rejection or exclusion. Kirkpatrick, Waugh, Valencia, & Webster (2002) contend that the adaptive value of social inclusion should depend on the strength of the relationship or group to the individual. Self-esteem should therefore be regulated by sociometers that reflect the perceived strength and value of one's social groups and interpersonal relationships as well as one's perceived inclusion within them. This view is consistent with that of the social identity theory (Tajfel & Turner, 1989) in which people make categorizations in order to place themselves and others into social groups and can engage in various strategies to maintain and protect their social identity.

Kirkpatrick et al. (2002) expand on the sociometer theory to say that aggression can therefore be related to self-esteem in different ways. In regard to the sociometer theory, greater perceived social inclusion is likely to be associated with decreased aggression out of a fear of alienation from or rejection from in-group members. Recall that the underdog category is highly available in memory and that the underdog category becomes the in-group for many people. Thus, it is reasonable to deduce that the participants in the present study with unstable self-esteem may believe that they belong to the underdog in-group. These participants also have an unstable orientation in regard to self-esteem. Thus, the participants with unstable self-esteem may be favoring the underdog moreso than those with stable self-esteem, rather than aggressing, out of an added fear of social exclusion from their underdog in-group. That is, when these

participants are asked to rate who they would favor, their internal sociometer motivated them to strongly favor their in-group.

Emotionality of Negative Feedback

Recall that the results revealed marginal significance for a tendency of participants with high, unstable self-esteem with negative feedback as well as participants with low, unstable self-esteem, with negative feedback to root for the underdog much more than other participants. Thus, the results point toward a tendency for participants in these two groups to root strongly for the underdog. These results suggest that negative false feedback caused participants to be more emotionally affected than the participants who received positive false feedback. That is, when a participants' self-esteem was threatened through negative feedback, the participant felt strongly about rooting much more for the underdog. By receiving negative feedback, these participants may be feeling as though they are underdogs and therefore strongly relate to underdogs. That is, the negative feedback may have caused these participants to feel as though they are at a disadvantage compared to the participants who received positive feedback. Thus, these participants may be more emotionally affected by being underdogs themselves.

Limitations of Current Research

The current research has some limitations. The main problem with the current research is the small sample size of 75 participants. Despite having 141 participants complete the experiment, only 75 participants remained once middle score data was removed. This led to a small amount of participants in each cell. With a small sample size, there is a great risk of having a sample that is unrepresentative of the population and

consequently having results that are not generalizable. In addition, there is a great risk of having too little statistical power for the analyses used to realistically identify significant results. Future research should concentrate on recruiting a larger sample size.

Another possible limitation could be related to the underdog scenario and survey. For the underdog scenario and survey, participants read a short scenario describing a competition in a business context. The scenario features two companies, one of which was described as an underdog and the other as the top dog. Participants were then asked questions about their preferences for the two companies. The business scenario may have elicited certain feelings from participants based on the recent business scandals in the news such as the Enron scandal. Perhaps a different type of underdog may have elicited different scores on the survey. Future research should control for this limitation by using a different type of scenario and underdog such as children in a school setting.

A third possible limitation to the current research is related to the low and high self-esteem categories. Specifically, none of the participants received a score of less than 15 (out of 30) on the Rosenberg Self-Esteem Scale, which would have technically classified them into the low self-esteem category. That is, all participants received a score of 15 or higher, which technically classifies them as having high self-esteem. Thus, the range of the scores within the high self-esteem category, were the scores studied in the current research with comparisons made between the high-end of high self-esteem and the low end of high self-esteem. If participants with actual low-self esteem were used in the present study, different results may have been found. Future studies should

expand their participant pool to include people who qualify for low self-esteem by receiving a score on the Rosenberg Self-Esteem Scale of less than 15.

While conducting the present experiment, it became apparent that for some of the participants in the experiment, English was not their first language. Although the number of these participants was not recorded, it was clear that there were many. During or directly after taking the computerized test, most of these participants mentioned that they felt that their performance on the computerized test was influenced by this limitation. Thus, for these participants, the false feedback may not have been effective in threatening self-esteem. In future studies, this limitation should be controlled for possibly by excluding participants for which English is not their first language or changing the computerized test to the type of test that does not involve vocabulary from the English language.

Finally, the procedure used in the current research was consistent with previous research in the area of self-esteem (Kernis et al., 1989, Paradise & Kernis, 2002). However, small differences may have existed. For example, there were two computer stations in the same room where students took the computerized test and received false feedback. Although an experimenter was present at all times and signs were posted that read, "The Experiment is in Progress: Please Remain Silent" some participants discussed their results before filling out the underdog survey and some participants discussed their results while filling out the underdog survey. This exchange of information could have affected the believability of the feedback and the degree to which the false feedback had an influence in threatening self-esteem. In future studies, this limitation should be

controlled for either by using separate rooms for the computer stations or only allowing one participant at a time to complete the computerized test in order to eliminate any possibility for exchange of information.

Conclusion

The results of the present study demonstrate that people have a very strong tendency to favor underdogs. That is, people love to support underdogs, root for underdogs, sympathize with underdogs, and identify with underdogs. The underdog effect becomes even stronger when teasing apart stability of self-esteem. Specifically, people with unstable self-esteem strongly favor the underdog, possibly because they fear social exclusion from their underdog in-group. Thus, the findings of the present study reinforce the robustness of the underdog effect and highlight an important difference between those with stable self-esteem and unstable self-esteem.

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Table 1

Means for Rooting, Support, Sympathy, and Identification Scores for the MANOVA Stability Main Effect

	Underdog		Top dog	
Dependent Variable	Unstable	Stable	Unstable	Stable
Rooting	5.58 (1.09, N=35)	4.72 (1.81, N=40)	3.40 (1.31, N=35)	3.90 (1.73, N=40)
Support	5.12 (1.12, N=35)	4.61 (1.82, N=40)	3.81 (1.22, N=35)	4.47 (1.77, N=40)
Sympathy	5.69 (1.07, N=35)	5.01 (1.85, N=40)	2.40 (1.06, N=35)	2.80 (1.32, N=40)
Identification	5.00 (1.31, N=35)	4.54 (1.55, N=40)	3.01 (0.92, N=35)	3.65 (1.96, N=40)

Note. Standard deviation and sample size are included in parentheses.

Table 2

Means for Rooting, Support, Sympathy, and Identification Scores for the Four ANOVA's Two-way Interactions with Stability of Self-Esteem

	Stable		Unstable	
Factor	Underdog	Top dog	Underdog	Top dog
Rooting	4.72 (1.81, N=40)	3.90 (1.73, N=40)	5.55 (1.09, N=35)	3.40 (1.31, N=35)
Support	4.61 (1.82, N=40)	4.46 (1.77, N=40)	5.12 (1.12, N=35)	3.81 (1.22, N=35)
Sympathy	5.01 (1.85, N=40)	2.80 (1.32, N=40)	5.69 (1.07, N=35)	2.40 (1.06, N=35)
Identification	4.54 (1.55, N=40)	3.64 (1.26, N=40)	5.00 (1.31, N=35)	3.01 (0.92, N=35)

Note. Standard deviation and sample size are included in parentheses.

Table 3

Means for Rooting Scores for the ANOVA Four-way Interaction

	High Self-Esteem			
	Stable		Unstable	
Target	Positive feedback	Negative feedback	Positive feedback	Negative feedback
Underdog	4.11 (2.03, N=9)	5.51 (1.14, N=11)	5.43 (1.13, N=7)	5.64 (1.12, N=11)
Top dog	4.00 (1.87, N=9)	3.73 (1.62, N=11)	3.86 (1.57, N=7)	3.27 (0.79, N=11)
	Low Self-Esteem			
	Stable		Unstable	
	Positive feedback	Negative feedback	Positive feedback	Negative feedback
Underdog	4.67 (1.92, N=15)	4.80 (1.64, N=5)	5.13 (1.55, N=8)	6.00 (0.78, N=9)
Top dog	3.07 (1.58, N=15)	4.20 (1.92, N=5)	3.38 (1.92, N=8)	3.11 (1.05, N=9)

Note. Standard deviation and sample size are included in parentheses.

Appendix A – Hypotheses

THREAT		Stable	Unstable
	High	UD	TD
	Low	UD	No prediction

NO THREAT		Stable	Unstable
	High	UD	UD
	Low	UD	No prediction

Appendix B – Rosenberg Self-Esteem Scale

INSTRUCTIONS: Please select the appropriate statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it. Please answer honestly as all selections will remain anonymous.

Question 1

1. On the whole, I am satisfied with myself.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 2

2. At times I think I am no good at all.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 3

3. I feel that I have a number of good qualities.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 4

4. I am able to do things as well as most other people.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 5

5. I feel I do not have much to be proud of.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 6

6. I certainly feel useless at times.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 7

7. I feel that I'm a person of worth, at least on an equal plane with others.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 8

8. I wish I could have more respect for myself.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 9

9. All in all, I am inclined to feel that I am a failure.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 10

10. I take a positive attitude toward myself.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Appendix C – Modified Rosenberg Self-Esteem Scale

INSTRUCTIONS: Please select the appropriate statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it. Please answer honestly as all selections will remain anonymous.

Question 1

1. I am satisfied with myself at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 2

2. I think I am no good at all at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 3

3. I feel that I have a number of good qualities at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 4

4. I am able to do things as well as most other people at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 5

5. I feel I do not have much to be proud of at this moment.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 6

6. I feel useless at this moment.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 7

7. I feel that I'm a person of worth, at least on an equal plane with others, at this moment.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 8

8. I wish I could have more respect for myself at this moment.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Question 9

9. I am inclined to feel that I am a failure at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Question 10

10. I have a positive attitude toward myself at this moment.

- ○ Strongly agree
- ○ Agree
- ○ Disagree
- ○ Strongly disagree

Appendix D – Quick Test of Intelligence

The following is a scale under development for perceptual-verbal ability. You will be presented with some pictures and some words. When a word appears on the screen, select the picture that best fits the word. Two examples will be provided for demonstration. Click NEXT when you are ready to see the demonstration.

Instructions: When a word appears on the screen, click on the picture that best fits the word, and then click NEXT.

Picture 1 Picture 2

Picture 3 Picture 4

Amicable

Next

RESULTS

Based on the performance of other University of Richmond students, you received the following score and ranking:

Score: 343
Rank: Top 20th percentile

Appendix E – Underdog Survey

Ice Cream *Treats* and Ice Cream *Delights* are two ice cream companies in a community. A school in the area is hosting an ice cream festival to welcome new families to the community, and the event organizers are trying to select one of the ice cream companies to cater the event.

These are the information about two ice cream companies:

Ice Cream *Treats*: The company has been in business *less than 1 year.* The company is *small, new* and there are no additional stores open in other locations. The company makes a premium ice cream and has just begun catering events.

Ice Cream *Delights*: The company has been in business for *over 30 years*. The company is *large, established* and there are five additional stores open in other locations. The company makes a premium ice cream and has catered events in the past.

Ice Cream *Treats* and Ice Cream *Delights* are competing to be chosen to cater the ice cream festival event. The local newspaper ran an article in which they predicted that Ice Cream *Treats* has a less chance to be chosen over Ice Cream *Delights*. Specifically, a poll of newspaper staff indicated that Ice Cream *Treats* has about 35% chance of winning and Ice Cream *Delights* has about 65% chance of winning in this catering event.

Catering this ice cream social would be a lucrative business opportunity for either company.

On the previous page, you read a bidding event between Ice Cream *Treats* (a small, new company) and Ice Cream *Delights* (a large, established company). On the next few pages, we would like you to answer a number of questions about the event.

Please circle one number for each scale that best reflects your opinion.

How important are the following features of ice cream in general for you personally?

1. Taste

1	2	3	4	5	6	7	8	9
not important at all				neutral				very important

2. All natural ingredients

1	2	3	4	5	6	7	8	9
not important at all				neutral				very important

3. Low in fat

1	2	3	4	5	6	7	8	9
not important at all				neutral				very important

4. What company do you support to be chosen to cater the event?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

5. If you have $ 1000 to bet on the bidding, how much money do you want to put either of the companies or one company? You can also assign your money unevenly between two companies. (Your total money of allocation must be $ 1000.)

Treats: $_____ *Delights*: $_____

6. What company do you root for to be chosen to cater the event?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

7. What company do you think deserves to be chosen to cater the event?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

8. What company do you have sympathy for?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

9. What company do you identify with?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

10. What company are you happy to root for?

1	2	3	4	5	6	7	8	9
Treats				equal preference				*Delights*

Here are some additional questions about the bidding event between Ice Cream *Treats* (a small, new company) and Ice Cream *Delights* (a large, established company). Please circle one number for each scale that best reflects your opinion *even if the questions seem repetitive.*

11. How strongly will you support *Treats*?

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

12. How strongly will you support *Delights*?

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

13. How strongly will you root for *Treats*?

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

14. How strongly will you root for *Delights*?

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

15. I feel *Treats* deserves to be chosen to cater the event.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

16. I feel *Delights* deserves to be chosen to cater the event.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

17. I feel sympathetic toward *Treats*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

18. I feel sympathetic toward *Delights*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

19. I identify with *Treats*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

20. I identify with *Delights*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

21. I am happy to root for *Treats*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY

22. I am happy to root for *Delights*.

NOT AT ALL 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 VERY STRONGLY