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Deviance in the Sport of Soccer: The Relationship Between Wearing Brightly Colored Cleats and Aggression

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Running head: DEVIANCE IN THE SPORT OF SOCCER

DEVIANCE IN THE SPORT OF SOCCER: THE RELATIONSHIP BETWEEN WEARING
BRIGHTLY COLORED CLEATS AND AGGRESSION

By

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Honors Capstone Project

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Psychology & Intercultural Studies

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*"Give thanks in all circumstances;
for this is the will of God in Christ Jesus for you."
1 Thessalonians 5:18*

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ABSTRACT

Two studies examined the effects of deviance in the sport of soccer, specifically how players who wear brightly colored cleats are perceived by others, whether or not they act more aggressively, and whether or not other players act more aggressively toward them. In the first study, research was conducted using collegiate soccer players recruited from the Chicagoland Collegiate Athletic Conference. The participants filled out an online survey asking a wide range of questions about aggression and sports. Analysis of the data suggests that a relationship exists between players who wear brightly colored cleats and aggression levels. Not only do a percentage of collegiate athletes act more aggressively toward players who wear brightly colored cleats, an even greater proportion of players have a negative attitude toward the deviants.

In the second study, research was conducted using a group of students from the Social Sciences' and Honor's departments at Olivet Nazarene University. The participants were asked to fill out a survey asking a wide range of questions about aggression and sports. In addition, they participated in a short experiment in which they were presented with different color combinations of soccer uniforms and asked to give a snap judgment of good or bad, and later of passive or aggressive. As was found in the collegiate athlete study, a negative attitude toward players who brightly colored cleats is present among the general population.

Keywords: Deviance, Soccer, Aggression, Over-confidence

INTRODUCTION

In team sports, specifically the sport of soccer, there is a certain level of conformity that players are expected to adhere to. Each team wears specific uniforms in which the shirts, shorts, and socks match; however, there is one part of the uniform that players are not obligated to match, which is the cleats. Typically players wear cleats that a) are a neutral color such as black or white or b) a color that matches the color of their uniform. The purpose of this research was to answer the following questions: Is there an unspoken standard that players should also wear matching cleats? When players wear cleats that do not adhere to this unspoken standard, specifically when they wear cleats that are brightly colored, do both collegiate soccer players and the general population believe that a norm has been violated? Furthermore, when players wear cleats that do not adhere to this unspoken standard, specifically when they wear cleats that are brightly colored, is there any aggression displayed by other players toward these deviants¹?

¹ Deviant as understood in Psychology and defined in the Review of Literature

REVIEW OF LITERATURE

Deviance has been studied for several decades. In the 1960s, both Cohen (1965) and Clinard (1968) defined deviance similarly. Cohen (1965) stated that deviance was “behavior that violates normative rules” and Clinard (1968) stated that deviant behavior was “a violation of norms.” In the 1970s, Secord, Backman, and Slavitt (1976) described deviant behavior as, “Behaviors which interfere with, or challenge, the values of those persons who hold social power are apt to be labeled deviant.” In contrast, Aronson, a notable social scientist, has been exploring the issue of conformity for several decades and defines the term as, “a change in a person’s behavior or opinions as a result of real or imagined pressure from a person or group of people” (2008). Nonconformity, therefore, could be defined as a lack of or a deliberate resistance to change in a person’s behavior or opinions due to pressure from others. Although studies exploring the topic of deviance and conformity are plentiful, studies that specifically address the issue of deviance within the sport of soccer are rare, possibly non-existent. There is, however, research about deviance in sports.

In one study, Prapavessis (1997) studied the effects of sacrifice on group cohesion and conformity to norms in sports teams. Results showed that “sacrifice was found to be related to group cohesion (and, through cohesion, to conformity)” (Prapavessis 1997). If sacrifice is related to conformity, then perhaps wearing matching cleats that conform to the group rather than brightly colored cleats of a player’s personal preference could be perceived as a sacrifice that promotes cohesion. Players who do not conform, or sacrifice, could also be perceived as disrupting team cohesion.

In another study looking at professional football and hockey teams that wear black, there is evidence supporting the idea that teams that wear black uniforms are perceived as more aggressive, or “malevolent” (Frank&Gilovich, 1988). Although this research focused on the appearance of an entire team rather than an individual team member who chose to stand out, the concept that one’s uniform can affect the level of aggression in sports is the concept that became the basis for this research.

Furthermore, it has been shown that the type clothing a person wears can have an effect on perceived aggression (Johnson & Downing 1979). In the experiment by Johnson and Downing (1979), the perception of people given “Ku Klux Klannish” costumes was significantly more negative than people given costumes that were supposedly extra nurses’ outfits from the recovery room in a hospital. On a scale of one to seven, one being extremely compassionate and seven being extremely aggressive, the Ku Klux Klan costumes were given a mean rating of 5.59 while the nurses’ costumes were given a slightly positive rating of 3.71. The results of whether or not the participants actually displayed higher levels of aggression appeared to be based on other factors, but the purpose of this experiment is to see if there is a more direct relationship between the act of aggression and clothing choice.

The idea deviants would be treated with higher levels of aggression originated while evaluating the results of a study performed by Schachter (1951). The study, famously known as the “Johnny Rocco Study,” looked at how people reacted to conformity and deviance in decision-making. The groups were comprised of approximately nine participants, six of whom were real participants, and three of whom

were confederates, people paid by the experimenter to take on specific roles. The three roles of the confederates were that of a conformist, a deviant, and a slider. The participants were then asked to make a decision about the treatment of a juvenile delinquent named Johnny Rocco. The confederate always took the position that the majority of the real participants had, the deviant always took the exact opposite position, and the slider first took on the deviant's position and eventually changed to the conformist's position. The results demonstrated that in the group, the real participants clearly liked the conformist the most and the deviant the least (Schachter 1951). Because the deviant was the most disliked member of the group, I wanted to see if this pattern would be present in soccer and if the negative attitude toward deviants would translate into aggressive behavior.

There are three hypotheses being examined through this research. First, players who wear brightly colored cleats that do not match their uniforms are perceived as deviants, or norm violators, by both their peers and by the general population. In addition, players who wear brightly colored cleats are treated with higher levels of aggression than players who wear black cleats, white cleats, or cleats matching their uniforms. Lastly, players who wear brightly colored cleats also display higher levels of aggression than their peers.

STUDY 1

METHODS

Participants

Before any participants were recruited, IRB approval was obtained. Participants were then recruited via email. An email was sent out to eighteen men's and women's soccer coaches in the Chicagoland Collegiate Athletic Conference (CCAC). The coaches were then asked to invite their players to participate in the research and a link was provided to the online survey. The total number of athletes who received the email is estimated to be approximately 450. In addition, players were made aware that an incentive of \$10.00 gift certificates to Chipotle (ten total) and \$15.00 gift certificates to Starbucks (six total) would be given to randomly selected participants. In total there were 112 participants (70 females, 36 males, and 6 who did not respond to the question about gender).

Materials and Procedure

Because the topic is relatively unstudied, the survey was constructed and designed based on preliminary research and my own soccer experience. Both my research advisor and the IRB committee then approved it. Questions were composed to address a variety of issues, including some questions unrelated to the topic in order to disguise the purpose of the study. Disguising the purpose of the study prevents reactivity, or the tendency for people to change their normal behavior when they know when they are being observed, and it also can reduce a participant's bias from affecting the results. The survey questions were then transferred to an online survey distributor,

www.surveymonkey.com, and coaches distributed the link to the first survey to their players via email. The survey was accessible for two and a half weeks, from November 17, 2010 to December 4, 2010. The participants were first asked to view the informed consent document before partaking in the survey; informed consent was implied by participation in the survey. Once the informed consent document was read, the participants answered questions on the survey. First, participants were asked 12 multiple-choice questions primarily about fouls and the impressions they have of their opponents. Then participants completed a section of 15 questions in which they were asked to rate their opinions about various topics regarding the sport of soccer. Finally they answered the following short-answer question, "Briefly describe your first impression of an opponent wearing brightly colored cleats (Include assessment of skill level, attitude, personality, etc)." Upon completion, participants filled out demographic information and had the option to enter their email address in a drawing for the gift cards. When each individual completed the survey, they submitted their answers online and were allowed to read a brief statement telling them the purpose of the study as well as the hypothesis of the research. They were given my contact information and encouraged to email any questions they had (a copy of the survey is in Appendix A).

After the survey was closed, responses were collected and all the responses, with the exception of the short answer responses, were entered into an SPSS data set. Analysis consisted mainly of evaluating descriptive statistics, specifically the frequencies of responses. In addition, a distribution curve was created for each of the rating questions and special attention was given to deviations from the normal curve, or skews

in the distributions. Qualitative analysis of the short answer questions was done by creating categories for the answers and assigning numerical values to each of the five categories so that descriptive statistics of the answers could be evaluated.

The email addresses were put into a separate document and a random number generator was used to select the 16 participants who received the Starbucks and Chipotle gift cards. An email requesting each person's mailing address was then sent to those participants and gift cards were mailed on December 22, 2010. After the gift cards were mailed, the document containing the email addresses was permanently deleted.

RESULTS

At the core of this research is the assumption that there are underlying norms and expectations of soccer players despite the absence of specific rules and guidelines defining these rules. Without these underlying norms and expectations, the hypothesis is invalid. The results, however, support this assumption. In response to the following statement, "There are unwritten rules in soccer, 'soccer etiquette,' that determine how players behave," 78.6% of respondents either agreed or strongly agreed and only 6.4% disagreed. The next step was to discover whether or not an underlying expectation existed for players who wear brightly colored cleats.

In the rating section, participants were asked to rate their initial impression of a player who wears brightly colored cleats based on seven factors. The seven factors were good versus bad, timid versus aggressive, active versus passive, weak versus strong, arrogant versus modest, skillful versus inexperienced, and friendly versus malicious. Each scale was based on a seven-point scale. Out of the seven factors, there are significant skews in the distribution of five of the factors. The data suggested that the initial impression of most participants is that players who wear brightly colored cleats are perceived as good, aggressive, active, arrogant, and skillful. When examining the frequencies of the extreme values of the seven-point scale (frequencies of participants who rated their impression as either 1 or 7), there is a notable difference on the arrogant vs. modest scale; almost one-third (29.4%) of participants rated their initial impression of players who wear brightly colored cleats as arrogant and none of the participants rated them as modest.

The existence of aggression was not only supported in the rating section, but also in the multiple-choice questions. In response to one statement, 12.5% of participants reported having been carded (a more severe punishment than a regular penalty in soccer) for fouling someone who was wearing brightly colored cleats. In soccer, without including goalkeepers, only ten players are on the field for each team, which means that at any given time approximately one player on the field from each team admits to fouling someone because they were wearing brightly colored cleats. In addition, 8% of respondents have *purposefully* fouled someone because they were wearing brightly colored cleats and 2.7% of participants said that it was right or justifiable to foul someone simply because they were wearing brightly colored cleats. Even players who had worn brightly colored cleats believed they were treated more aggressively; almost one out of three, or 29.4%, of players who had worn brightly colored cleats thought they had been fouled more frequently than when they did not wear brightly colored cleats.

Not only did aggressive behavior toward people who wear brightly colored cleats exist, but also an unfavorable attitude toward them was prevalent among their peers. In response to the statement, "Opponents who wear brightly colored cleats are humble," 36.7% of respondents either disagreed or strongly disagreed. What is more shocking is that less than 1% of respondents agreed with this statement and no one strongly agreed.

Qualitative analysis of the short answer revealed a similar pattern of results. The short answer responses were sent to each of the three research assistants who then

created categories for the responses. The proposed categories were returned to me and I selected five categories that best represented the sample of responses. The categories were cocky, overconfident, flashy, or a show-off; skillful or talented; aggressive or not friendly; wanted to be unique, wanted to be an individual, or outgoing; and does not matter, indifferent, or not a reflection of skill level. The last step in the qualitative analysis was to put the answers into one, two, or three of the five categories. Each of the assistants and I did this individually and when discrepancies occurred, the answers were categorized according to the majority opinion. In response to what their initial impression of players who wear brightly colored cleats was, 7.4% of responses were classified into the aggressive/not friendly category and 58.3% of responses were categorized as the belief that players who wear brightly colored cleats are cocky, overconfident, flashy, and/or a show off. Additionally, of the 8% of respondents who have purposefully fouled someone because they were wearing brightly colored cleats, all short answer responses were categorized as overconfident, cocky, flashy, and/or show-off. An additional 35.2% of responses stereotyped players who were brightly colored cleats as skillful and talented.

There was also a subtle attitude in the short answer responses that not only are players who wear brightly colored skillful, but they must also prove themselves. Approximately 8% of respondents specifically discussed the fact that players who wear brightly colored cleats need to prove themselves. One participant said that one of her coach's sayings was, "If you're going to wear the [brightly colored] cleats, you have to back it up." Another player stated that she grew up in a culture that advocated, "If you

want to wear brightly coloured [sic] cleats, you had better be good.” There seems to be an attitude that a certain skill level is “required” before one wears brightly colored cleats.

Another interesting finding was that even though in general players have a negative impression of people who wear brightly colored cleats, few people believe that the rules should be changed to deter this deviant behavior. In regard to the statement, “Everyone on a team should wear the same style and color of cleats,” 70.7% of respondents either disagreed or strongly disagreed, only 9.2% of respondents agreed, and no one strongly agreed. Furthermore, of the 12.5% of participants who had been carded for fouling someone with brightly colored cleats and the 8% of respondents who had purposefully fouled someone for wearing brightly colored cleats, every single person disagreed with the statement. These results indicate that players who display aggression toward the opponents who wear brightly colored cleats do not want the rules to change. As one respondent stated, “When I see an opponent wear bright cleats my attention is on them. There seems to be a type of player who wears them. This type is most likely full of themselves, aggressive to do anything to get the ball, good but not great, and [plain] annoying for wearing those cleats.” This could possibly be representative of the attitude, “It is your right to wear brightly colored cleats, but it is also my right to dislike you and act more aggressively toward you because of your choice.”

DISCUSSION

Although a direct causal relationship between wearing brightly colored cleats and increased levels of aggression cannot be inferred from this data, there is an indirect relationship between these two factors. There is also a strong attitude of dislike expressed by a majority of players toward those who wear brightly colored cleats. Although many players do not always act more aggressively toward players who wear brightly colored cleats, the negative attitude toward those players is understood to make aggressive behavior more likely. When players have a negative attitude toward opponents who wear brightly colored cleats and do not act aggressively toward those players, they experience cognitive dissonance, or “a state of tension that occurs whenever an individual simultaneously holds two cognitions (ideas, attitudes, beliefs, opinions) that are psychologically inconsistent” (Aronson, 2008). One way to reduce this dissonance is to foul the player wearing brightly colored cleats so that their actions align with their attitude.

As with any survey-based research, the issue of representativeness is present in this study. Although over 100 collegiate athletes took part in this survey, all the athletes were limited to one conference in the Midwest. In addition, the CCAC is a part of the National Association of Intercollegiate Athletics, or NAIA, but no soccer players from the National Collegiate Athletic Association, or NCAA, (Divisions 1, 2, or 3) were used. In the future, attempts could be made to expand the research sample to a wider variety of conferences, of divisions, and of geographical locations. Also, in two of the short answer responses players indicated that they believed a difference existed between

males and females in terms of aggression and motivation for wearing the brightly colored cleats. Further research could look specifically for these differences.

STUDY 2

INTRODUCTION

Study 1 looked specifically at the attitude of collegiate athletes; a follow up study was created to look at the attitudes of the general population in order to determine how prevalent this negative attitude toward players who wear brightly colored cleats is. Is the perception of players who wear brightly colored cleats limited to soccer players or is it existent in the general population as well?

METHODS

Participants

Before any participants were recruited, IRB approval was obtained. Then, professors in three classes at Olivet Nazarene University, two “Introduction to Psychology” courses and a “Basic Research and Statistics” course, distributed sign-up sheets to their classes and offered extra credit as an incentive for participating in the research. A maximum of five participants were allowed to sign up for each time slot. In addition, an email was sent out to students in Cohort 1 of the Honor’s Program at Olivet Nazarene University inviting them to participate in the research as well. In total 39 participants took part in the experiment (23 females and 16 males) during eleven different sessions.

Materials and Procedures

As with Study 1, the experiment was designed and constructed based on preliminary research and my own soccer experience. In addition, both the IRB committee and my research advisor reviewed and approved the design.

The week before the experiment took place, three research assistants were recruited to aid in the experiment. Each assistant was provided with detailed instructions on how to perform the experiment and were required to attend a short training session.

The experiment was performed on December 9, 2010 from 4:00pm to 10:00pm. Each research assistant was in charge of a two-hour time block of experiment sessions and I was present throughout the entire duration of the sessions. Before the students

arrived for each session the experimenter prepared for the survey. The experimenter shuffled a set of index cards labeled 1-15 and then reordered the PowerPoint presentation slides (See Appendix C) based on the order of the shuffled cards. They repeated the same procedure with an identical PowerPoint presentation so that when they finished preparation, they had two PowerPoint presentations with slides in different, randomized orders. This procedure was in place to counteract order effects and to randomize the order participants reacted to the photos in the PowerPoint presentation.

After the students arrived, the experimenter welcomed the participants and an informed consent document was read aloud. Participants then consented to the experiment via a signed informed consent document. The survey was then passed out and the instructor read a prepared statement giving the participants clear instructions for the first part of the survey. The participants then filled out the first section made up of 14 questions asking them to rate their opinion on various issues in sports. Some of these questions were identical to questions in Study 1.

After everyone completed the first section, the experimenter then began the second section. After reading instructions aloud, the experimenter presented the 15 photos in the first PowerPoint presentation. The PowerPoint presentation was designed so that each slide was displayed for 3 seconds and participants were passing quick judgments on the photos viewed indicating whether each slide overall was good, partially good, partially bad or bad. The same task was repeated with the second PowerPoint presentation also designed so that each slide was displayed for 3 seconds,

but this time participants were asked to indicate passive, somewhat passive, somewhat aggressive, or aggressive rather than good or bad.

When participants finished the quick judgment sections the experimenter read the final set of instructions and participants completed the demographics section of the survey (a copy of the survey is in Appendix B).

When all participants completed the survey, the administrator explained the purpose of the survey and the hypothesis. Time was allowed for a short question and answer session and participants were free to leave. The entire procedure lasted about fifteen minutes and was repeated in each of the eleven sessions.

For analysis, the responses to the quick judgments were reordered so that all responses were in the same order. Then all of the data was entered into an SPSS data set. Evaluating descriptive statistics, specifically the frequencies of responses, was the primary form of analysis for the rating and demographic sections. In addition to frequencies, repeated measures ANOVAs were calculated for each of the snap judgment questions, specifically looking at the difference between yellow cleats and black cleats as well as the difference between yellow cleats and white cleats within each uniform color condition. A repeated measures ANOVA was also performed to look for an overall difference in the participants' opinions of cleat color for each uniform color condition. For all analyses, the significance level was set at .05.

RESULTS

Similarly to Study 1, 79.5% of participants agree and only 5.1% disagree that, “There are unwritten rules in soccer, ‘soccer etiquette,’ that determine how players behave.” In an independent sample t-test there was no significant difference on this question between the athletes and the non-athletes. Because even the general population agrees underlying norms in soccer exist, this reinforces the basis of the hypothesis that unspoken expectations of soccer players exist.

The general population did not perceive the direct relationship between players who wear brightly colored cleats and levels of aggression. In the snap judgment section, the general population’s perception of players being passive or aggressive was based more on uniform color rather than cleat color. Blue, red, and black uniforms were perceived as significantly more aggressive than white and yellow uniforms (See Figure 1 in Appendix A). It is interesting to note that of the out of every uniform and cleat color combination the black uniform paired with yellow cleats had the highest overall percentage (86.8%) of people who perceived them as aggressive, 15% higher than any other combination.

The negative attitude toward players who wear brightly colored cleats, however, was supported by the results of this experiment. No one agreed with the statement, “Opponents who wear brightly colored cleats are humble,” and over 60% of respondents either disagreed or strongly disagreed with the statement. These percentages indicate that the general population believes that players who wear brightly colored cleats are prideful. Furthermore, the indirect relationship between

aggression and players who wear brightly colored cleats did appear to exist. Almost eighty percent (79.5%) of people completely disagree or disagree with the statement “A humble player is more likely to commit a foul than an overconfident player” and 58.9% of respondents agreed that confident players foul more frequently than those who lack confidence. Because no one believed that players who wear brightly colored cleats are humble, it can be inferred that they would be more likely to commit a foul.

In addition, there was evidence in the snap judgment section that players who wear brightly colored cleats are perceived negatively. As can be seen in Figure 2 in Appendix A, the players who wear yellow cleats are perceived as bad more often than players who wear white or black cleats in all conditions except the yellow uniform condition, which will be addressed later. The repeated measures ANOVA test was used on each condition to see if the differences were significant. In the blue uniform, red uniform, and black uniform condition differences were all below the significance level (See Table 1 in Appendix A). Although the difference in cleat color does not significantly affect the perception of good versus bad, it still follows the same general pattern as the blue, red, and black uniforms. The perception of yellow uniforms also did not show significant differences in the cleat colors, which actually supports the hypothesis. As was stated earlier, players typically wear cleats that a) are a neutral color such as black or white or b) a color that matches the color of their uniform. Wearing yellow cleats with a yellow uniform would fulfill the second requirement; therefore, players who wear yellow cleats with a yellow uniform would not be perceived as deviants.

DISCUSSION

The data from Study 2 present little evidence for the direct relationship between aggression and players who wear brightly colored cleats; however, the existence of an indirect relationship does exist. As was present in collegiate athletes, the negative attitude toward players who wear brightly colored cleats is present in the general population as well. In addition, the general population indicated that players who wear brightly colored cleats display increased levels of aggression.

In two of the sessions, the first PowerPoint presentation had to be restarted because the participants were not prepared for the speed of the slides. Because of the relatively small overall sample size and the even smaller proportion of responses that were affected by the restarted presentations, the responses from these sessions were still included in the data. In addition, after looking for differences between the responses in the sessions that the PowerPoint presentation was restarted and the other sessions, the responses did not show any significant differences, which further supported the decision to include the responses in the data.

In the future, a new scale could be added to the snap judgment section of the experiment using the following factors: overconfident, confident, lacking confidence, and not confident at all. By adding this new scale, the results would reflect the participants' view of the attitudes of players who wear brightly colored cleats, in addition to their actions (i.e. being aggressive or not). In addition, increasing the sample size to include more participants would increase the representativeness of the sample.

GENERAL DISCUSSION

In general, the findings from both studies are similar. Players who wear brightly colored cleats are perceived as deviants, but this does not always result in aggressive behavior. There are, however, some differences between the two studies. The answers on rating questions that were the identical in both surveys were compared using independent samples t-tests. Results showed that even though both collegiate athletes and the general population were reluctant to agree that opponents who wear brightly colored cleats are humble (only .9% and 0% respectively), the general population was much more likely to disagree. Specifically, 61.5% of the general population sample either disagreed or completely disagreed with the statement, "Opponents who wear brightly colored cleats are humble," in contrast to the 36.7% of collegiate athletes. The difference between the general population and collegiate athletes may be accounted for by the approximately 30% of the collegiate athletes who stated they had worn brightly colored cleats. These players probably did not want to indicate they were not humble, opting instead for the more socially acceptable answer. The other statement in which there were significant differences between the collegiate athlete's responses and the general population's responses was the statement, "Everyone on a team should wear the same style and color of cleats." The general population's response to this question was normally distributed, but the majority of collegiate athletes disagreed. The indication is that the general population is more open to changing the rules in order to promote conformity than collegiate athletes.

As was mentioned in the discussion of both studies, increasing sample size is a possible next step. By increasing the number of participants, it would increase the representativeness of both studies. In addition to increasing sample size, there are numerous avenues for gaining more insight into the relationship between wearing brightly colored cleats and aggression.

In most collegiate games statistics are kept on fouls. One such avenue for retrieving more information would be to retrieve archival data on fouls for and against players who wear brightly colored cleats and compare those statistics with players who do not wear brightly colored cleats. In addition to the existence of fouls, severity of fouls could also be taken into account. This information would be a more tangible indication of aggression against players who wear brightly colored cleats. Also, the original purpose of the studies was to discover the relationship between aggressive behavior and players who wear brightly colored cleats; however, the more prevalent finding was the negative attitude toward deviants. In further research, the attitude toward players who wear brightly colored cleats could be explored more thoroughly.

In addition to expanding upon the results for this specific topic, the research has also raised a number of questions about the generalizability of these results. The findings from these studies could also be expanded to other sports. Does the animosity towards soccer players who wear brightly colored cleats also apply to deviants in other sports? In addition, differences in culture could be explored. Is there more animosity toward deviants in collectivist societies than in individualistic societies? In the sport of

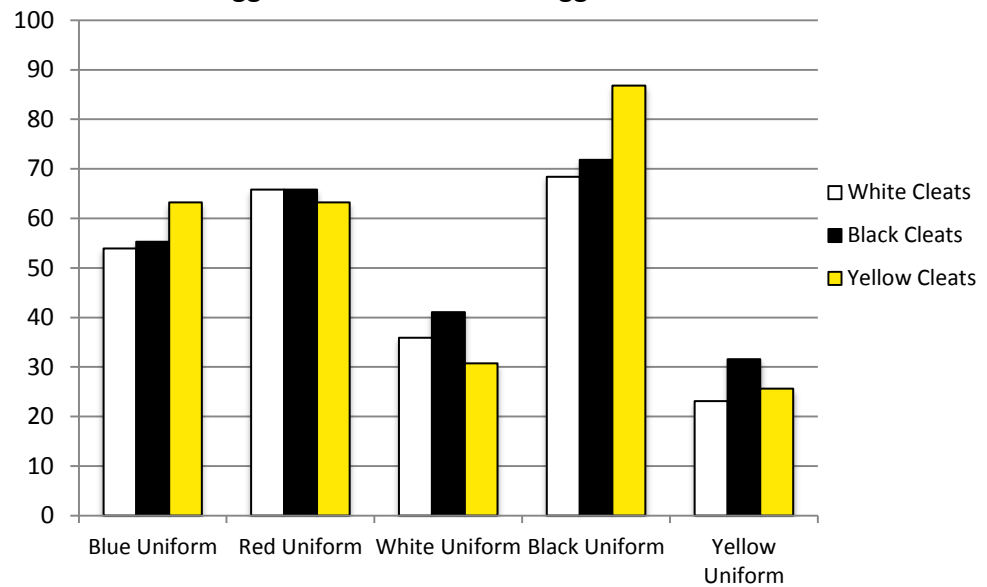
soccer, there may be other ways that players can be perceived as deviants. More research could be performed to discover if any other forms of deviance exist in soccer.

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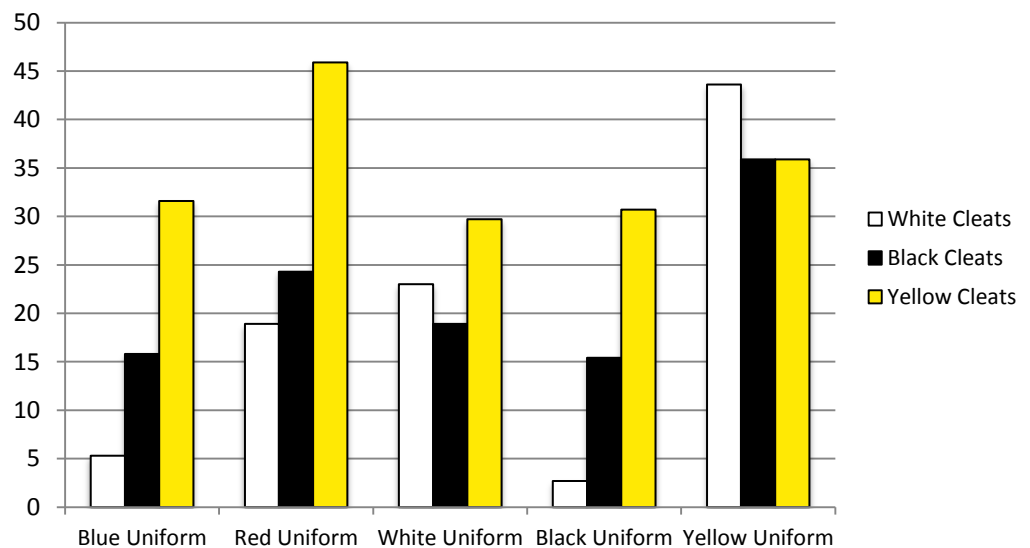
Appendix A-Figures and Tables

Figure 1: Percentage of Responses as Aggressive or Somewhat Aggressive



Caption: Participants were asked to respond to different color combinations of uniforms and cleats by rating them on a four-point scale from Aggressive to Passive. The percentage of responses that were either aggressive or somewhat aggressive (the lower end of the scale) were then added together and displayed on the graph.

Figure 2: Percentage of Responses as Bad or Partially Bad



Caption: Participants were asked to respond to different color combinations of uniforms and cleats by rating them on a four-point scale from Good to Bad. The percentage of responses that were either bad or partially bad (the lower end of the scale) were then added together and displayed graphically.

Table 1: Repeated Measures ANOVA Results

	Overall Significance Level	Significance Level Between White and Yellow Cleats	Significance Level Between Black and Yellow Cleats
Blue Uniform	.008	.008	.393
Red Uniform	.006	.003	.018
White Uniform	.254	.117	.545
Black Uniform	.000	.000	.031
Yellow Uniform	.548	.273	.474

Caption: Participants were asked to respond to different color combinations of uniforms and cleats by rating them on a four-point scale from Good to Bad. Repeated measures ANOVA tests were run to see if the differences in the responses were significant. The numbers in the graph represent the *p*-values of each comparison.

Appendix B-Survey for Collegiate Athletes

Instructions: Please answer the following questions without consulting other participants and with complete honesty.

Part I: Multiple Choice

1) What is the first aspect of your opponent that you notice?

(Circle at least 1 and a maximum of 3)

- a) Physical stature (height, weight, etc.)
- b) Hair style
- c) Skill level
- d) What they are wearing
- e) How they display their number (covering their number versus displaying it obviously)
- f) Number of players on the roster
- g) Players who are injured
- h) None of the above

2) Have you ever fouled anyone in reaction to something your opponent said to you during the game?

- a) Yes
- b) No

3) Have you purposefully fouled someone because they wearing brightly colored cleats?

- a) Yes
- b) No

4) Have you ever fouled someone within the first ten minutes of the game in order to send him or her a message because you had a bad first impression of him or her?

- a) Yes
- b) No

5) Have you ever received a red card?

- a) Yes
- b) No

6) Is it right (justifiable) to foul someone because they are wearing brightly colored cleats?

- a) Yes
- b) No

7) Have you ever been carded for fouling someone who was wearing brightly colored cleats?

- a) Yes
- b) No

8) Have you ever received a yellow card?

- a) Yes
- b) No

9) Is it right (justifiable) to foul someone because they fouled you?

a) Yes b) No

10) Do referees more readily call fouls on players who wear brightly colored cleats?

a) Yes b) No

11) Have you ever worn brightly colored cleats?

a) Yes b) No

If yes:

In your opinion, were you fouled more frequently than when you did not wear brightly colored cleats?

a) Yes b) No

Why did you choose to purchase/wear brightly colored cleats? (Check all that apply)

- _____ A player who you look up to had the same cleats
 - _____ Wanted to stand out
 - _____ Liked the style
 - _____ Price was reasonable
 - _____ Other:
-

12) Are players who wear headgear to prevent head injuries more aggressive?

a) Yes b) No

Part II: Rating

1) Everyone on a team should wear the same style and color of cleats.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

2) Referees often make calls based on the physical appearance of a player.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

3) Women soccer players are less physically aggressive than men soccer players.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

4) Soccer is a more aggressive sport than football.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

5) There are unwritten rules in soccer, "soccer etiquette," that determine how players behave.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

6) Players should continue to be allowed to wear whatever cleats they choose as a personal expression of who they are.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

7) A humble player is more likely to commit a foul than an overconfident player.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

8) Players who receive a red card during one game should not have to sit out the following game.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

9) Opponents who wear brightly colored cleats are humble.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

10) If a player commits a foul within the first ten minutes of a game, the referee is more likely to call more fouls on the player throughout the rest of the game.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

11) There should be more strict penalties for receiving a yellow card.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

12) Confident players foul more frequently than those who lack confidence.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

13) If a rule change was put in place that required players who receive a red card only to sit out the rest of the game (not to sit out the following game), players would be more likely to commit fouls worthy of receiving a red card.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

14) Referees are the main determinant of the level of aggression in a game.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

15) Rate your initial impression of an opponent wearing brightly colored cleats.
(Don't take more than 5 seconds to answer each question.)

A)	Good						Bad
	1	2	3	4	5	6	7
B)	Timid						Aggressive
	1	2	3	4	5	6	7
C)	Active						Passive
	1	2	3	4	5	6	7
D)	Weak						Strong
	1	2	3	4	5	6	7

E)	Arrogant						Modest
	1	2	3	4	5	6	7
F)	Skillful						Inexperienced
	1	2	3	4	5	6	7
G)	Friendly						Malicious
	1	2	3	4	5	6	7

Part III: Short Answer:

Briefly describe your first impression of an opponent wearing brightly colored cleats (Include assessment of skill level, attitude, personality, etc).

Demographics

1) Gender M F

2) Ethnicity (Circle all that apply)

Arab Asian/Pacific Islander Black Caucasian/White

European

Latino Would prefer not to answer Other: _____

3) Age _____

4) Name of University _____

5) Year of eligibility _____

6) Have you ever been (or currently are) a licensed referee? Yes No

7) Have you ever coached a team of the high school level (or higher)?

Yes No

Appendix C-Survey for Non-Athletes

Instructions: Please read through each question carefully and honestly answer each question to the best of your ability. Do NOT look ahead to the next section until the administrator tells you to do so.

Section 1: Rating

Rate whether you agree or disagree with the following statements on the given 5-point scale.

1) Everyone on a team should wear the same style and color of cleats.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

2) Referees often make calls based on the physical appearance of a player.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

3) Women soccer players are less physically aggressive than men soccer players.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

4) Soccer is a more aggressive sport than football.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

5) There are unwritten rules in soccer, "soccer etiquette," that determine how players behave.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

6) Players should continue to be allowed to wear whatever cleats they choose as a personal expression of who they are.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

7) A humble player is more likely to commit a foul than an overconfident player.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

8) Teams that wear black uniforms are more aggressive than teams that wear white uniforms.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

9) Opponents who wear brightly colored cleats are humble.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

10) If a player commits a foul within the first ten minutes of a game, the referee is more likely to call more fouls on the player throughout the rest of the game.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

11) Professional athletes should have stricter penalties for intentional fouls than amateurs.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

(Section 1 continues on the next page)

12) Confident players foul more frequently than those who lack confidence.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

13) If a player has unusually styled hair (such as hair dyed a bright color or styled in a Mohawk), they will not be fouled more often than players who do not.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

14) Referees are the main determinant of the level of aggression in a game.

Completely Disagree	Disagree	Neither	Agree	Completely Agree
1	2	3	4	5

Section 2: Snap Judgment

1) In this next section you will be presented with several pictures in rapid succession. Indicate whether your reaction to the picture is good or bad on the scale indicated below. (Do not look at the next page until the administrator indicates that you may do so.)

	Good	Partially Good	Partially Bad	Bad
1.	1	2	3	4
2.	1	2	3	4
3.	1	2	3	4
4.	1	2	3	4
5.	1	2	3	4
6.	1	2	3	4
7.	1	2	3	4
8.	1	2	3	4
9.	1	2	3	4
10.	1	2	3	4
11.	1	2	3	4
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	1	2	3	4

2) You will again be presented with a series of pictures, and you are to indicate whether you think a player wearing the uniform shown is passive or aggressive on the scale indicated below.

	Passive	Somewhat Passive	Somewhat Aggressive	Aggressive
1.	1	2	3	4
2.	1	2	3	4
3.	1	2	3	4
4.	1	2	3	4
5.	1	2	3	4
6.	1	2	3	4
7.	1	2	3	4
8.	1	2	3	4
9.	1	2	3	4
10.	1	2	3	4
11.	1	2	3	4
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	1	2	3	4

Section 3: Demographics

1) Gender: M F

2) Ethnicity (Circle all that apply)

Arab Asian/Pacific Islander Black Caucasian/White
 European
 Latino Would prefer not to answer Other: _____

3) Age _____

Soccer Experience

4) Have you ever played organized soccer (defined as being on a team that plays against scheduled opponents and excludes intramurals)?

Yes No

If yes,

A) Approximately how many years? _____

B) What level of soccer have you played? (Circle all levels played)

Stopped playing before high school Club (HS) Freshman (HS)
 Junior Varsity (HS) Varsity (HS) Collegiate JV Collegiate Varsity
 Semi-professional Professional

5) Have you ever played intramural soccer?

Yes No

If yes,

A) What type of soccer? (Circle all that apply)

Indoor Outdoor

B) What level? (Circle all that apply)

Junior High High School College

6) Have you ever had a family member who has played high school varsity or collegiate soccer?

Yes No

If yes, approximately what percentage of games did you attend? _____%

7) Have you ever played at least one sport at the High School Varsity level?

Yes No

8) Have you ever played at least one sport at the collegiate level?

Yes No

9) Have you ever been a licensed soccer referee (not for intramurals)?
Yes No

10) On a 7-point scale, rate your knowledge of the tactics of soccer.

Completely Unknowledgeable (1)	Very
--------------------------------	------

knowledgeable (7)

1 2 3 4 5 6 7

11) On a 7 point scale, rate your awareness of the ethics of soccer (what is considered right and wrong, by both spoken and unspoken rules).

Completely Unknowledgeable (1)	Very
--------------------------------	------

knowledgeable (7)

1	2	3	4	5	6	7
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12) On a 7-point scale, rate your overall knowledge of soccer.

Completely Unknowledgeable (1) Very

knowledgeable (7)

1	2	3	4	5	6	7
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Appendix C

Figure 3: PowerPoint Slides

