Users report that their participation on social media serves a variety of purposes. For example, a user may employ social media sites such as twitter to signal common ground (Lampe, Ellison, & Steinfield, 2007). Lewis, Pea, and Rosen (2010) note that young social media users utilize mobile and desktop social media to contextualize themselves in the community, receiving continuous feedback that allows them to self-mediate. Since the Pi Kappa Delta app allows for users to like or comment on a meme, it provides for this feedback and for the comparison of feedback relative to others. Additionally, roughly 64% of social media users engage on social media to entertain themselves, and 80% use social media sites to seek information (Whiting & Williams, 2013). When looking more specifically to Facebook groups, Park, Kee, and Valenzuela (2009) found four primary gratifications for participating in these groups: socializing, entertainment, self-status seeking, and information. The Pi Kappa Delta app conforms to these purposes, providing a platform for users to engage with one another and with administrative capabilities for those staffing the tournament.

Memes have become, for some, an opportunity to accomplish a variety of purposes at once. The word "meme" originates from the work of Richard Dawkins in 1979, which suggested that genetics were not the only determining factor in human behavior (Davison, 2012). "Memes" were thus originally considered to be mannerisms, skills, or other behavioral/informational components that were either taught directly or transmitted by imitation—any nongenetic behavior qualified as a meme (Blackmore, 2000; Davison, 2012).

Colloquially, memes may be described as "a piece of culture, typically a joke, which gains influence through online transmission" (Davison, 2012, 122). Memes can encompass various forms; the earliest noted meme was the smiley face emoticon, which Scott Fahlman created in 1982 to mark which comments were jokes and to thus avoid misinterpretation due to low media richness between bulletin-board users at Carnegie Mellon (Davison, 2012). A common meme form, an image macro, employs a combination of visual imagery and text to convey its "ideal," or the idea which the meme transmits (Davison, 2012). The current research focuses on memes which closely follow the image macro memetic form. Images in the current research which deviate slightly from the typical image macro form have text below the image, rather than inside of it.

Memes may be shared widely or between a small group of friends. Many memes may be primarily transmitted through homogenous communities (Bauckhage, 2011). Thus, they may serve as a simple but concrete way to indicate community belonging and shared values. A social media user on the Pi Kappa Delta app, for example, might signal that they value the diversity of their peers by posting a meme that criticizes racist political language. However, because memes are able to be coopted, edited, and otherwise changed, they also often become a platform for intergroup dialogues, and thus, the exchange of infor-

mation or beliefs between those of different backgrounds. For example, some memes cycling through Facebook have initial text detailing a pro-gun stance, which is electronically crossed out by another user and replaced by counter-arguments or mockery. Whether they be political or identity-based, the generation and sharing of memes can provide multiple perspectives on single issues.

This cultural transmission through memes can result in some animosity due to ideological friction between those of different beliefs. The intensity of these beliefs may be amplified by the anonymous nature of meme culture; because the creation and dissemination of memes often provides anonymity, the producers of offensive memes can escape punishment or censure (Davison, 2012). This may produce the noticeable trend of memes which cross accepted social boundaries and are considered offensive, such as racist uses of the Pepe meme (Bauckhage, 2011). The unfortunate consequence of this back-and-forth between groups is that it necessarily creates winners and losers (Milner, 2012). Memes are microcosms of culture war.

Representativeness

Memes, as all visual imagery, must be studied in the context of representativeness. Research on representativeness and cultural transmission in textbook pictures, television, and other media has demonstrated that visual imagery can directly impact the self-perception of its viewers and/or reflect the culture which produced it (Good, Woodzicka, & Wingfield, 2010; Greenberg and Atkin, 1978; Park, 2005; Botta, 2000). Ferree and Hall (1990) suggest that pictures serve as a way of "capturing the currently acceptable conceptualization of race and gender" held by society (501).

Social acceptability is relevant because, as the psychologist and sociologist Mead (1934) argues, identity is fluid and responsive rather than static. Identity is also formed in the presence of community; Hecht (1993) argues that identity is formed through communication and relationships. This process occurs as individuals negotiate their self-identification in a social context, and as that identification is accepted or contested by those around them (Rummens, 2003). Because visual imagery such as memes constitute an easily accessible, visual representation of community, it will impact and potentially alter its viewer's self-concept.

Visual imagery can reflect and perpetuate cultural biases. In one analysis of pictures in sociology textbooks, researchers posited that the overwhelming bias towards using women in pictures of "Family" and "Population" topic sections potentially served to indicate "the popular image of the nuclear family" (Schneider & Hacker, 1973). Other researchers have corroborated gender bias in textbooks, noting that favorable images of females tended to emphasize their beauty, in contrast to images of males, which tended to emphasize their bravery (Blumberg, 2008).

Further research found that such gender biases in textbook photography can directly impact student anxiety and performance. In one study, students were given one of three chemistry lessons before taking a comprehension test and an anxiety test (Good et al., 2010). Female students who had viewed the non-stereotypical lesson, or the lesson containing more pictures of female than male scientists, scored higher in comprehension. Males who had viewed the stereotypical lesson, or the lesson containing more pictures of male than female scientists, scored higher on comprehension. The researchers found that the lesson with mixed-gender images produced no difference in comprehension between male and female students, emphasizing the importance of representativeness and diversity in visual imagery. This study demonstrated that the implicit messaging of visual imagery changes the ability of a student to perform, likely due to the self-perception changes which result from media consumption.

Research on television programs demonstrates that racial differences in media consumption and interpretation as a whole exist. Greenberg and Atkin (1978) found that black children were more likely to accept fictional stories as reality and were more likely to identify with televised black characters. If these patterns of consumption generalize to media forms such as memes, then racial biases in memes and/or stereotypical portrayals may have a greater effect on minority consumers.

Visual media also affects viewers body image and self-concept. Women who read beauty and fashion magazines had an increased desire to be thin, in part because of "the prevalence of the thin ideal in mass media, the presumed influence of the thin ideal on others, and the perceived influence of the thin ideal on self" (Park, 2005, 594). By simply viewing images of thin women in that context, women may have internalized the visual imagery of the "ideal" woman and the implications of this ideal imagery upon their own bodies.

Just as weight-exclusionary images may affect women's self-perception, images which portray beauty as being monopolized by white women affects the self-perception of black women, many of whom, upon encountering the prevalent beauty standards which tend to exclude them, feel marginalized (Perkins, 1996). Mok (1998) records similar observations of Asian American women, noting that the monoracial beauty standard inherently excluded them and that the lack of positive Asian-American portrayals in media effected the self-perception of Asian American women. This indicates that a lack of representativeness in visual imagery can lead to feelings of exclusion.

However, black adolescents may interpret idealized images differently than their white counterparts (Milkie, 1999). Researchers disagree as to the degree of difference between the reactions of white and black viewers of idealized television imagery. Renee Botta (2000) suggested that the more adolescent girls idealized television images, the more dissatisfied they were with their personal appearance; while

black adolescents tended to have a larger ideal size and greater body satisfaction than their white peers, there was no difference in the rate of eating disorders as a reaction to the desire to be thin (Botta, 2000). This suggests that idealized imagery can result in self-loathing and eating disorders for both white and black adolescents.

Though most white adolescent girls felt that idealized visual representations of their gender were unrealistic, they nevertheless aspired to look like them (Milkie, 1999). Black girls, who critiqued the lack of diversity and realism in the media which they were exposed to, felt less compulsion to match the beauty standard, in part because it directly contradicted the perceived messages of their immediate social environment (Milkie, 1999).

This may mirror the findings of other researchers, who suggest that the combination of media exposure and immediate social environment influences individual body image (Park, 2005). Schwartz and Halegoua (2015) describe this perception as the 'spatial self" which is created and collated by the individual. Because the memes in the Pi Kappa Delta app are media images exclusively propagated by an immediate social environment, they may have more influence than memes propagated through more distant forms of social media. The representativeness of the memes on the Pi Kappa Delta app could directly affect the viewer's self-image and the forensic community as a whole.

Subconscious Biases and Visual Imagery

Photos such as those in many memetic images have particular power to transmit implicit or subtle messages, since photographs are seen as presenting objective reality (Whatley 1988). Gilman (1985) suggests that images of individuals can easily be interpreted as representing a wider group. Whatley (1988) also notes that images of subgroups which are represented less have more potential to "represent" that subgroup. Images, as opposed to other media forms, may carry more subconscious authority and thus have a greater effect upon the resulting implicit biases they create in their viewer.

These biases become particularly relevant when these images are shared on social media platforms. Greenwald and Banaji (1995) explain that while social behavior is often treated as conscious behavior, this may be an outdated view; it is more accurate, and perhaps more productive, to view social interactions as implicit and/or unconscious. They expound on the concept by suggesting that "attitudes, self-esteem, and stereotype have important implicit modes of operation" (4).

One of these modes is the theory of "mere exposure," which they acknowledge has wide scientific consensus. Zajonc (1968) first posited the idea of mere exposure, hypothesizing that "mere repeated exposure of the individual to a stimulus object enhances his attitude

toward it" (1). This effect is noticeable even in cases where the stimulus is a verbal message. When statements are repeated, those who hear it are more likely to believe it, having changed their attitude in response to the increased exposure (Arkes, Boehm, & Xu, 1991). Because the presence or absence of a visual stimulus will alter the amount of exposure which that stimulus receives, representativeness of visual imagery may affect the likeability of its subjects. If Asian-Americans are featured only occasionally on television programming, they are receiving less exposure than their European counterparts and thus receiving fewer opportunities to change subconscious attitudes and biases.

Greenwald and Banaji (1995) define implicit stereotypes as "the introspectively unidentified (or inaccurately identified) traces of past experience that mediate attributions or qualities to members of a social category" (5). Implicit stereotypes will directly affect the interactions which occur based off of them, particularly in light of Greenwald and Banaji's categorization of social interactions as implicit (1995). These stereotypes have been observed in many contexts. Banaji, Hardin, and Rothman (1993) found that when participants were exposed to dependence primes, they "rated a female target as more dependent than a male target who performed identical behaviors" (272). This implicit stereotyping effect demonstrates how seemingly innocuous stimuli may change and/or trigger perceptions that individuals have of those around them. Implicit stereotyping has also been recorded in medical student performance evaluations, in which women were more likely to be described as "sensitive" than comparable men, and men were more likely to be described as "quick learners" than comparable women (Axelson, Solow, Ferguson, & Cohen, 2010).

Additionally, implicit racial/ethnic bias has been observed among medical professionals, who largely share a low-moderate level of implicit bias (Hall et al., 2015). Implicit stereotyping and/or bias in this context may be especially dangerous, as "implicit bias was significantly related to patient-provider interactions, treatment decisions, treatment adherence, and patient health outcomes" (Hall et al., 2015, 60). This example epitomizes the idea that while some stereotypes may be comparatively harmless, stereotyping as a whole can have dangerous results. By examining the visual imagery created by and exchanged within an insular community, it may be possible to examine the implicit stereotypes of that community.

Research Questions

In light of previously discussed research which examines the importance of representation in visual imagery, a lack of representation in visual imagery produced and shared by the intercollegiate forensic community may reinforce the idea that some ethnic groups "fit" competitive forensics more than do others. This leads to our first

research question.

> RQ 1: Do the memes shared by users of the mobile application reflect the racial and gender diversity of the activity as measured in previous scholarship?

Additionally, while intercollegiate forensics is an identifiable subculture (Paine 2005), it is also composed of smaller subcultures which may relate to or compete with one another in various ways. Cambria and Klopf (1978) noted that students who competed in oral interpretation seemed to identify themselves differently from students who participated in debate or other speech events, whereas other debaters and public speakers identified similarities between each other. Similarly, Miller (2005) noted that differences between the cultural/competitive norms of forensics regions qualified each individual region as "a culture within a culture within a culture within a culture within a culture."

While gender, ethnicity, event type, and region may all contribute to or define subgroups within competitive forensics, there is no research regarding how these subgroups view one another in the context of forensics. While some research examines how limited numbers of subgroups identify with their forensic team or organization, it rarely examines how forensic subcultures relate to one another or how the visual imagery created by and shared within the forensic community may reflect or effect its members. This leads to the following research questions:

> RQ2: How do the memes on the Pi Kappa Delta app portray race?
>
> RQ3: How do the memes on the Pi Kappa Delta app portray gender?
>
> RQ4: How do the memes on the Pi Kappa Delta app portray different competitive events?

Past research seems to suggest that biases would exist against women and persons of color, but because this context is unique compared to previous forensic scholarship and because Pi Kappa Delta emphasizes diversity and inclusion in its mission statement (2017) potentially influencing the culture at the tournament, it is difficult to make specific predictions about memes on the app.

Methodology

The methodology for this study follows similar scholarship, including Yoon's (2016) analysis of racist themes in internet memes. In that study, memes were organized into race and thematic content, similar to the way in which the memes in the current study were organized into event type, gender presentation, race, and situational nature. As indicated by the date of Yoon's analysis, research methodology on memes remains largely unestablished due to the recent (and continuing) development of memes as an internet artifact. However, a meth-

odological basis for memetic analysis draws upon past research, including research on the content of graffiti. Stocker et. al. (1972) and Schreer & Strichartz (1997) both categorized pieces of graffiti into various groups in order to investigate the social dynamics of the graffiti's creators. While many analyses organized images or graffiti into particular themes of categories, the current research instead observes the overall themes of which actors are portrayed in which situations.

To answer the research questions for this study, data was collected from the mobile application used at the 2017 Pi Kappa Delta national tournament and convention hosted by Boise State University and coders were utilized to categorize the images. All photos from the Pi Kappa Delta application were screenshotted and uploaded to DropBox, which automatically numbered each individual photo. A total of 456 images were collected over the course of the tournament.

The numbers attributed to the photos were inputted into a randomizer, statrek.com. The minimum was set to 98 (the number assigned to the first photo in the set) and the maximum was set to 554 (the number assigned to the last photo in the set). 456 randomized numbers were thus given by the number randomizer, with no duplicate entries permitted and no seed used. The data was then cleaned to exclude certain images. Images which were cleaned and excluded from analysis featured: lost-and-found items, objects, snapchat data, clear cartoon individuals, cartoon individuals with inhuman skin colors (such as green), robotic or otherwise humanoid beings, humanoids whose bodies/skin/faces were obstructed from view, anthropomorphic animals (such as Arthur or Spongebob), and/or ambiguous species (such as Muppets or Sesame Street characters). Images of cartoons, anthropomorphic animals, or other species were excluded from the analysis because they did not portray identifiable racial or gender characteristics. The resulting number of images used for the analysis was 294.

Because of the nature of the Pi Kappa Delta application, which is formatted similarly to Instagram in that text is written underneath each photo, some photos did not contain the entirety of the text. In these cases, a second screenshot of the lower half of the text was included, and coders were instructed to examine both photos together as a single image for analysis.

Four coders took part in the coding process. All four coders were active participants or coaches at the time of coding and participated in the 2017 tournament at Boise State University. The four coders that took part in the study represent three ethnicities, three sexual orientations, two genders, and a variety of US states of origin increasing the diversity in perspectives during the coding process. Coders were selected based on their familiarity with the tournament and their geographic proximity to the researchers.

Three surveys were then created to allow the four coders to analyze the data; the survey questions were divided into three surveys in order

to minimize coding fatigue. Each page of the survey told coders which photo to examine and asked them five questions about the image (is the actor competent or incompetent, is the situation positive or negative, what is the perceived race of the actor(s), what is the apparent gender presentation of the actor(s), does the meme portray a specific event). Coders were instructed to answer the questions to the best of their ability based on their understanding of the images without consulting anyone else. Scores from all four coders were averaged to determine the final score for the questions for each image.

For the first question, coders were asked to assess whether the actor was competent or incompetent and whether the situation was positive or negative. As an example, a competent actor might have won a debate round, whereas an incompetent one might have forgotten their memorized speech. Similarly, for the second question, a positive situation might include a receptive judge, whereas a negative situation might involve challenging competitors. Coders were also asked to assess the perceived race and gender presentation of the actor. For the final question, they were asked whether the meme portrayed a competitive event, and if so, which event. The intercoder reliability for these four coders was calculated using Krippendorff's Alpha and was found to be = 0.742. While certainly a lower level of agreement, Krippendorff (2004) notes this is within an acceptable range to make tentative conclusions from the data.

Results

To begin exploring the first research question, a simple demographic analysis was completed on the resulting coder scores. In total, 206 (70.1%) memes contained images where the actor was acting in a competent way and 88 (29.9%) were deemed to be incompetent. 142 (48.3%) of the memes portrayed a positive situation while 152 (51.7%) portrayed a negative situation. The race of the actors was found to be black 65 times (22.1%), Asian 9 times (3.1%), Hispanic 21 times (7.1%), of European decent 148 times (50.3%), and of multiracial groups 51 times (17.3%). Of the 194 memes, 190 (64.6%) had male actors, 60 (20.4%) had female actors, and 44 (15.0%) had mixed gender groups. In terms of events, 73 (24.8%) contained references to speech events, 96 (32.7%) discussed debate, 13 (4.4%) covered both speech and debate, and 112 (38.1%) did not discuss any events at all.

To answer the second research question, ANOVA were conducted to look for differences based on race for whether the actor was competent or not and whether the situation was positive or not. The first ANOVA examining competency (2 (competency) x 5 (race)) was not significant at the p=0.05 level. The second 2 (positive) x 5 (race) ANOVA revealed a main effect ($F(1, 290) = 6.73$, $p = 0.010$, $p2 = 0.023$). The follow-up post hoc tests determined that memes containing mixed groups of individuals were significantly more positive in nature than other memes that were shared (black (M=0.34, SE=0.06),

Asian (M=0.44, SE=0.18), Hispanic (M=0.48, SE=0.11), of European decent (M=0.45, SE=0.04), and multiracial groups (M=0.76, SE=0.06)). No other differences were found between groups.

A second pair of ANOVAs were also performed to answer the third research question examining the gender of the actor and the competency or positivity of the memes. Neither the ANOVA for competency nor the ANOVA for positivity of the meme showed any significant difference at the p = 0.05 level. Because neither test was significant, post hoc analyses were not performed.

A similar process followed for the fourth research question which examined the same two concepts in regards to event type. The first ANOVA for competency showed no significant results. However, the second ANOVA for positivity did reveal a main effect (F(1, 290) = 9.49, p = 0.002, p2 = 0.032). Further post hoc testing determined that memes that did not include an event or contained both speech and debate events were significantly more positive than those who posted one (Speech (M=0.38, SE=0.06), Debate (M=0.33, SE=0.05), Both (M=0.62, SE=0.14), None (M=0.66, SE=0.05)).

To complete the analysis and to determine if any interaction effect existed between event category and either race or gender, another series of ANOVAs were performed. Both sets of these ANOVAs found no significant main effect for differences between groups for either race or gender. Again, with a non-significant result, post hoc tests were not performed.

Discussion

The results for the first research question show an encouraging level of racial representativeness, with about 50% of the memes including people of color. However, the memes shared may not directly correlate with the person sharing the imagery. For example, white individuals could post larger numbers of racially representative memes without those memes mirroring improvements in the actual racial diversity of the competitive pool. If this is the case, then the forensics community may be encouraging greater representation but not yet achieving it, particularly since research reports that there is not yet racial parity in forensics (Allen, Trejo, Bartanen, Schroeder, & Ulrich, 2004). The opposite was true for gender. Though females are well represented in forensics (Allen, Trejo, Bartanen, Schroeder, & Ulrich, 2004), males dominated the sharing of images, revealing a stark under-representativeness for females. The ratio of memes including males to memes including females was almost 3:1. This indicates that despite females being equally represented in the actual competitive pool, they are not represented in the imagery created by that pool. Whether a bias in memes posted or a bias in individuals using the app, more can be done to promote representativeness within forensics and on this app in particular.

The second and third research questions follow a similar trend. Both ANOVAs showed no main effects for competency which is a positive sign. Actors were equally likely to be shown as competent regardless of race or gender. The same was true for the positivity in regards to gender. The only ANOVA to show a main effect was for the positivity of the meme of multiracial groups. In reexamining the memes posted on the app, the researchers noticed that many people were sharing team photos which were comprised of diverse groups. Those photos were overwhelmingly positive, likely resulting in the above difference. All other potential differences between groups were not significant.

The results of the fourth research question also showed no significant difference in terms of the competency of the actor in the memes for the different event categories. However, a main effect was found in terms of positivity with images describing both speech and debate events or with no mention of events at all being more positive. Team photos, which were included in the analysis due to the difficulty in discerning group photo with words from traditional memetic imagery, likely have some influence on these results as well. More research is needed to examine the particulars of specific events as the sample sizes were too small per event to have meaningful results.

The ANOVA testing for interactions between event type and either race or gender found no main effects revealing that the memes were fairly balanced between actors regardless of event. Previous forensics research has noted a gender gap in specific events like extemporaneous speaking and debate (Manchester & Friedley, 2003). These results would seem to indicate that competitors value and desire a more representative distribution of individuals. While the sharers of the memes are unknown, the perception of forensics created through the sharing of memes based on events does create the impression of a representative culture within the activity, which, in turn, both reflects and fosters a community that values inclusiveness and diversity.

When viewed together, the results of this study indicate a subculture in which diversity is valued not just in words, but in the images shared by those involved. More effort needs to be expended to make forensics a community that is welcoming and representative of all, especially as noted by the dominance of males posting on the app, but the trend based on previous research is positive. The images shared on the Pi Kappa Delta mobile app show an increasing trend towards representation and inclusion. For those participating in the activity, the motto of "the art of persuasion, beautiful and just" seems to be more than just a credo. It is a fundamental way of imagining the experience of intercollegiate forensics.

Limitations

No study is without room for improvement and this research is not an exception. The coding team was composed of four diverse people,

representing three ethnicities, three sexual orientations, and varying geographic origins. Additionally, intercoder reliability was = 0.742. However, future studies might take advantage of a larger coding pool, which would enable researchers to analyze any potential connections between the coder's identity and their response to the survey questions. Additionally, because all four coders are currently connected to the same region of the forensic culture, there may be a bias in how coders interpreted the memes distributed from competitors in other regions. Future research might employ coders from multiple competitive regions.

The format and use of the Pi Kappa Delta application also imposed some limitations on the current study. While most memes employ some element of humor or shock, many of the photos posted on Pi Kappa Delta were memes intended solely to celebrate a team or individual and their accomplishments. For example, some competitors posted photos of themselves and their peers with the text "fire up" at the beginning of the tournament in order to encourage solidarity and express anticipation. Others posted team photos towards the end of the tournament. Because not all memes are humorous, and because the line between a photo with text and a meme can be thin or non-existent, these were included in the analysis. However, the results might have been different if these photos, or all photos which included actual competitors and/or coaches, were excluded.

Additionally, due to the way profiles were created on the app, it was not possible to verify the race and gender of the person sharing the memes. To further examine the trends noted in this study, a more detailed analysis of the individuals who are sharing images is needed. Further research might control for or examine the role of "thought-leaders" in the memetic imagery; the former might be accomplished by developing a control for the frequency of a single user's posts.

However, these comments do not detract from the findings of this study because the perception of the activity culture created by the memes is not dependent on these factors. The perception is created from the sum total of the memes and images shared which clearly shows a trend towards greater diversity and inclusion.

Future Directions

This study alludes to many possibilities for future research. Because the impact of forensics competition upon individual identity-formation has remained largely unstudied (Croucher, Long, Meredith, Oommen, & Steele, 2009), and because the topic is so crucial for establishing the effect of forensics upon its participants, future studies could investigate the function of forensics as an identity modifier for intercollegiate competitors, particularly over time.

Additionally, though there have been inquiries into the diverse makeup of the forensics student population, these studies may be

outdated. Two of the most recent projects on the topic, Allen, Trejo, Bartanen, Schroeder, and Ulrich (2004) and Croucher, Thornton, and Eckstein (2006) are over a decade old, and may misrepresent the diversity of the current student population. To assess whether the forensic community is progressing towards its goal of being an inclusive and diverse group, it must necessarily update the information it has on the topic.

Finally, since past research has found gender disparities across some event types (Furgerson & Rudnick, 2014; Manchester & Friedley, 2003), future research could also examine whether any potential correlations exist between imagery representativeness and demographics. This may help establish whether the nature of memetic imagery in the forensics community is due to and/or fosters particular stereotypes, for example, "only men do extemp."

These research questions would directly relate to the present study, as they would indicate the degree to which the memes in forensics' participatory culture reflect the attitudes otherwise indicated by student participants.

Conclusion

There is no doubt that social media and apps like the one used at the 2017 Pi Kappa Delta National Tournament and Convention will continue to develop and shape society in the process. However, the results of this study seem to indicate that if a community takes active steps to promote diversity and amplify diverse voices, culture can change. Stereotyping and representativeness will continue to be points of discussion moving forward in all communities, but at least in speech and debate, memetic imagery is moving in a more inclusive direction.

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TEACHING & COACHING RESOURCE

Even the Playing Field: Virtual Reality Environment (VRE) as a Preparatory Tool for Speakers

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Abstract: *A variety of challenges face directors of any forensics program. Due to the sky-rocketing costs of airlines, travel, and hotel accommodations, budget tops the list for many coaches. The programs that suffer the most, competitively and pedagogically, are those with scarce resources. This article offers a teaching technique that is designed to level the playing field for programs that face fiscal adversity. While there are admittedly limitations in the use of virtual environments as a preparatory tool for individual events speakers, the advantages are noteworthy and compelling.*

During my first year of coaching as a full-time Assistant Director of Forensics, I worked with dozens of new students. Each individual came to the table with various levels of experience. Rarely did I encounter a situation for which I was ill-prepared.

One day, however, a student (I'll call her Lara) came into my office. She was incredibly shy, very reserved, and difficult to read in nonverbal domains. With no background in high school, I could not figure out her reasons for competing. So I asked her. In the most direct manner she explained, "I'm joining the team to get over my stage fright." I was initially shocked at her rip-off-the-band aid approach, but quickly learned to appreciate her willingness to face her fear with fervor.

In the same year, I worked with a student (I'll call him Rick) who unbeknownst to me lived in a position of extreme poverty. I only realized how dire his situation was as we were talking about his commute to the college--he rode a bicycle through traffic and the distance was dizzying. One day his bike went missing, and he had no way to get to or from school. Even mass-transportation would be too expensive for him. I donated my bicycle to him that day and resolved to consciously pay attention to subtle markers of economic insecurity.

Students join speech teams for a myriad of reasons. A cursory glance at articles in *Speaker & Gavel*, couched within the section titled

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"What Forensics Did for Me," provides a sample of the benefits learned from participation; they include writing, speaking, critical thinking, tackling deadlines, and socialization (Miller-McFeeley, 2017). Others have cited incredible personal benefits of intercollegiate competition, including help getting past addictions, securing scholarships, and giving voice to an important topic (Devillez, 2017). The benefits of competition are lauded in each volume of the journal you are reading, as well.

Unfortunately, the ability to reap the benefits of individual events competition cannot be realized by everyone. Two interrelated complications often prevent those who might benefit from participation at the highest levels in intercollegiate speech--these barriers mirror the lived experience of both Lara and Rick. First, the activity is not a very "safe" space for tremendously apprehensive speakers. Second, those who are economically disenfranchised (including programs) find the incredible financial cost of competition to be daunting. On the first note, forensics tends to attract those who are ready and eager for the spotlight and desire an opportunity to speak (e.g. Devillez, 2017). On the second note, it is expensive to participate in intercollegiate forensics at the highest level. Suits, food, travel, hotel, registration, and supplies all present a challenge for nearly all programs.

Herein, I hope to provide a useful teaching and coaching technique that proves equally useful as a remedy for both of the previously identified inherencies. Before explaining the technique advocated within this article, it is useful to briefly describe the adversity faced by a reticent speaker, identify a typology of treatments, and illuminate the opportunity afforded by a recent innovation in technology. Finally, the benefits of this teaching technique will be delineated.

The Reticent Speaker

Communication Apprehension (CA) is "the fear or anxiety associated with real or anticipated communication with another or others" (McCroskey, 1977). Communication apprehension has been found to negatively correlate with a number of skills and attributes that particularly impact college students, including (but not limited to) leadership, first-year adjustment, appreciation for diversity, foreign language use, interpersonal attraction, learning, and adaptability to new situations (Blume, Baldwin, & Ryan, 2013; Hirai, Frazier, & Syed, 2015; Guntzviller, Yale, & Jensen, 2016; McCroskey, Teven, Minielli, & Richmond McCroskey, 2014). In the classroom, communication apprehension has been found to be associated with avoidance of activities that require communication, including public speaking (Neer, 1990).

Apprehension Responses

Many physiological and behavioral responses occur when an individual is anxious about or fearful of giving a speech. Physiological

responses include shaking, sweating, increased heart rate, and muscular tension, manifestations of the flight or fight response (Haleta, Hunter, & Westwick, 2014). Behaviorally, reticence may manifest itself at any point in the speech process. It may arise during the pre-preparation, preparation, pre-performance, and performance stages (O'Hair, Rubenstein, and Stewart, 2012, p. 38-40). Typically, speakers are the most apprehensive during the first part of the speech, as they are becoming more aware of having an audience watching them (O'Hair, Rubensteian, and Stewart, 2012).

Treatments and Techniques

Communication apprehension and its effects have been widely reviewed and researched. However, modern solvency for this condition requires additional research, largely due to the constantly evolving nature of communication practices in the postmodern world. It is well-known that various methods can be used to counteract the negative effects of communication apprehension. Systematic desensitization, cognitive restructuring, skills training, and practice are some of the methods discussed in previous literature.

The first method of reducing communication apprehension is systematic desensitization. Systematic desensitization aims to reduce apprehension by making the effort to "engage, repeatedly, in the same apprehension-causing exercise or event in order to decrease its novelty and increase comfort with that activity" (Hunter, 2009, p. 1).

Second, a method that has been proven to reduce apprehension is cognitive restructuring. In this technique, people with high levels of communication apprehension are taught to identify their negative "self-talk" and replace this "self-talk" with positive thoughts. Essentially, the apprehensive person is taught new ways to think about the stimulus that causes them fear. In this case, an apprehensive speaker is taught to rephrase a negative belief such as, "I am afraid of public speaking" to a more positive statement such as, "I have a lot to teach others about this subject" (Hunter, 2009, p. 2).

Skills training is the most researched method of reducing communication apprehension. This approach assumes that apprehension stems from a lack of skills necessary to give a public speech. This approach teaches a reticent speaker the basic principles of giving a speech, such as how to organize a speech effectively, how to deliver an effective attention getter, how to engage an audience, or how to project their voice and speak at a conversational rate (Westwick, 2003).

Practice can also reduce communication apprehension. Since highly apprehensive speakers have a tendency to avoid rehearsing orally, practice is a vital component of their speech preparation, as it forces them to face some of the anxiety that they feel in giving speeches before giving their speech to the entire class. Repetitive practice allows a student to become more familiar with their speech material,

as well as find potential issues with their speech. This may help them feel more secure when they are actually presenting, since they will not be encountering possible difficulties for the first time (Ayres, 1996).

The building of skills meant to vanquish apprehension are unlikely to be utilized without incentive. Previous research has found that highly apprehensive speakers prepare differently for speeches than do those who that are low in apprehension about public speaking (Anderson, 1988; Ayres, 1996; Daly, Vangelisti, & Weber, 1995; and Daly, Vangelisti, Neel, & Cavanaugh, 1989). Reticent speakers do prepare for public speaking, and highly apprehensive speakers have been found to spend about two hours more preparing a five-minute speech when compared with low apprehensive speakers (Ayres, 1996). However, given their preference to avoid communication, highly apprehensive speakers have been found to spend most of their speech preparation and practice time engaging in non-communication oriented activities such as researching their topic or writing out notes, rather than practicing their speech orally (Ayres, 1996). By understanding the process of apprehensive speakers, we can slowly start to reduce anxiety levels before they even rise.

The act of facing fear either through skill building or systematic desensitization is filled with a myriad opportunities to lose (not save) face. In contrast, visualization is relatively safe when compared with skill building or systematic sensitization (due to the fact that visualization can happen in private). Unfortunately, the utility of this technique, when compared with other approaches, is suspect. Consequently, there is a demand, in communication scholarship, to discover a technique for reducing communication apprehension that is effective yet does not result in a potential escalation of fear. Virtual reality environment (VRE) may offer a superior technique when compared with conventional approaches to the reduction of communication apprehension.

The Virtual Reality Environment

As the breadth of technology expands and new inventions are being sold, the field of technological and digital treatment is for apprehension unprecedented. We are particularly interested in the impact VRE has on the reduction of communication anxiety. Virtual reality environments are "computer generated, three-dimensional worlds that allow users to interact with avatars in the virtual world" (Brundage & Hancock, 2015).

Virtual Practice and the Potential of VRE

Previous research has tested how performance in virtual reality environments (VREs) correlates with performance in the real world. Criterion-related validity has been established through several analyses of VREs used to treat and teach a wide variety of behaviors (Seymour, 2002; Fiard et al., 2014). These studies show that perfor-