COMMUNICATING GAYDAR: ARTICULATING IMPRESSION
FORMATION & NONVERBAL BEHAVIOR OF MEN

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Wesley D. Hansen
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The Undersigned Faculty Committee Approves the

Thesis of Wesley D. Hansen:

Communicating Gaydar: Articulating Impression Formation

& Nonverbal Behavior of Men

______________________________
Peter Andersen, Chair
School of Communication

______________________________
Carmen Lee
School of Communication

______________________________
Judy Reilly
Department of Psychology

7/25/11
Approval Date
ABSTRACT OF THE THESIS

Communicating Gaydar: Articulating Impression Formation & Nonverbal Behavior of Men

by

Wesley D. Hansen

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This study examined the relationships between accurate perception of individuals’ sexual orientation from limited silent videotapes, or gaydar, and personal demographics such as sex and sexual orientation. It also further scrutinized sexual orientation identity recognition into a more complex phenomenon called straightdar: the extent to which one can correctly identify straight individuals. Finally, this investigation further examined the use of particular nonverbal behaviors involved in the communicative phenomenon of sexual orientation identity recognition and impression formation.

Despite the inability to create a highly reliable measure of gaydar/straightdar to test the stated hypotheses and research questions, data indicate that gay men and lesbians perceived the sexual orientation of gay targets with more accuracy than straight individuals, and that females perceive the sexual orientation of straight targets with more accuracy than males. Furthermore, data indicate that kinesic movements and others associated with the facial area or general appearance are reported to be utilized as significant cues in the accurate judgment of an individual’s sexual orientation.
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CHAPTER 1

INTRODUCTION

Research suggests that different physiological cues exist between gay and straight men (Bogaert & Hershberger, 1999; France, 2007; Lawson, 2005; Lippa, 2008; McFadden et al., 2005). It should be no surprise then that these biological nuances would foster distinguishable communicative behavior as well; whether in visible, audible or verbal form (Gaudio, 1994; Linville, 1998; Nieto, 1996; Shelp, 2002) or through other nonverbal movements (Johnson, Gill, Reichman, & Tassinary, 2007; Knöfler & Imhof, 2007). Although findings from studies on the physiological and communicative differences between gay and straight men can be used to recognize sexual orientation, many of them are not applicable to outward physical appearance and cursory observation. Because of this ambiguity, reliance on other forms of communicative means to identify sexual orientation is of even more significance.

Considered by many to be a folk concept, gaydar, or the ability for an individual to distinguish one’s sexual orientation, can be employed to recognize and detect both verbal and nonverbal messages (Nicholas, 2004). While the scientific phenomenon of gaydar, or sexual orientation identity recognition, may still be under scrutiny, elements of nonverbal communicative behavior support the perception and accuracy of sexual orientation identity recognition at better than chance levels (Berger, Hank, Rauzi, & Simkins, 1987; Carroll & Gilroy, 2002; Linville, 1998). This level of accuracy is even suggested from observance of minimal examples of behavior (Ambady, Conner, & Hallahan, 1999; Neakrase, 2007; Rule, Ambady, Adams, & Macrae, 2008). Other dynamics relating to sexual orientation identity recognition, such as individual personal demographics that enable a higher rate of accurate perception (Neakrase, 2007; Rieger, Linsenmeier, Gygax, Garcia, & Bailey, 2010; Shelp, 2002) or the further complexity of the phenomenon have yet to be uncovered.

Nonverbal behavior, coupled with occasional verbal communication, appears to serve as the principal mechanism of sexual orientation identity recognition within the gay cultural group (Nicholas, 2004). This is particularly of significance to the many different
environments in which both gay and other individuals interact, where vocalic cues may not be available for interpretation. Nonverbal behaviors such as eye-gaze, kinesics, vocalics, and general physical appearance are frontrunners in this line of sexual orientation identity research; however this does not mean to minimize the significance of other dynamic and even static behaviors that can provide additional insight into nonverbal sexual orientation identity recognition.

The current investigation parallels the work of Ambady et al. (1999), Neakrase (2007), and Shelp (2002) to suggest that sexual orientation identity recognition from limited exposure, or the phenomenon of gaydar, exists at a better than chance ability level. It is the primary aim of this research to uncover demographic information and more clearly articulate nonverbal cues that interact in the construction of sexual orientation identity impression management and the accuracy of such judgment. By removing linguistic and paralinguistic elements from an individual’s behavior, additional nonverbal behavioral cues gain more importance in the construction of sexual orientation identity recognition (Ambady et al., 1999; Shelp, 2002).

Through this approach, this research will contribute to the understanding of the nonverbal communicative phenomenon of sexual orientation impression formation and the larger scholarly dialog of human sexuality that is applicable to both gay and non-gay communities. This topic is significant in modern American society where a gay individual could lose their position of employment, be removed from military service, lose parental rights, or in extreme cases be attacked, physically beaten, or murdered. The tension of expressing one’s sexual orientation and for others to correctly perceive such communicated messages is a sensitive and complicated reality that encompasses one’s identity and self-fulfillment, but is counterbalanced by self-preservation and protective behavior in the wake of social rejection, discrimination, and even physical danger.

Pragmatically, the ambiguous level of nonverbal behavior regarding sexual orientation positions gay men in a communicative conundrum. Gay men strive to communicate their sexual orientation in order to find social support, in-group belongingness, or a potential partner, while simultaneously running the risk of communicating this intention and interest to an unassuming straight male in a potentially hostile environment. The uninterested heterosexual male may even respond aggressively and violently. Quite similarly,
it is also possible for these same straight men to mistakenly invite unwanted advances or interest from a gay man, simply by misconstrued cues or interpretation of simple nonverbal behaviors. Because of these societal dynamics, the academic dialog involved in the phenomenon of sexual orientation identity recognition and nonverbal behavior categorization is much more significant than just the novelty people-watching game of gaydar.

**Physiological Differences Between Gay and Straight Men**

The subject of differential characteristics and identification of heterosexual populations and that of the non-heterosexual community is well-researched in communication, psychology and biopsychology. Scholars generally ground theoretical approaches regarding sexual orientation from a biological perspective but acknowledge the lack of a definitive conclusion regarding the origins of sexual orientation. These studies range from investigations on gay and straight men’s comparative penile size, acoustic speech patterns, pupil dilations in response to a sex-specific stimuli, cell cluster size in the brain’s hypothalamus, and analysis of tabulated Meyers-Briggs Type Indicator scores (Bogaert & Hershberger, 1999; France, 2007; Linville, 1998; Nieto, 1996; Shelp, 2002).

Within this past decade, other studies have taken a similar approach, grounded in genetics, prenatal development, and miscellaneous environmental factors (Lippa, 2008). McFadden et al. (2005) discovered that white females and white gay men tend to have significantly shorter index fingers, which are comparative to the length of their ring fingers. White straight men generally possess shorter index fingers and relatively longer ring fingers. This is believed to occur because of a lack of testosterone that is introduced to the developing fetus during a crucial period of prenatal development of both white gay men and white females, which is otherwise present in the prenatal development of white straight men (McFadden et al., 2005).

Other variations between people of different sexual orientation were found in experiments verifying the unique counter-clockwise hair-whorl pattern on a significant number of gay heads, and that gay men strongly prefer the scent of other gay men (France, 2007; Lawson, 2005). Studies in the social sciences link concepts associated with sexual orientation to that of gender, sex, and cultural studies. Scientific observations regarding identity recognition of non-heterosexual sexual orientation stem from deviations of typical
gender and sex behavior (Johnson et al., 2007; Neakrase, 2007; Sirin, McCreary, & Mahalik, 2004).

**Gay Identity and Culture in Heteronormative Context**

Gay identity, unlike many other sociocultural groups, lacks a definitive prototype to characterize its community members (Nicholas, 2004). Gay men can choose to participate in the performance of a gay community, or not. Those who are reluctant to connect to a larger gay community often go unnoticed through their lack of participatory behavior and can pass as a member of the larger and universally-assumed straight population. Many of these men marry women, have children, and exercise their sexuality as men who have sex with men on a down-low, secretive enactment (Eadie, 2009). This reality further convolutes the general identification of the gay male community in itself, and further accentuates the importance of other typifying indicators of sexuality, whether it serves the benefit of further identification or self-preservation and concealment.

Without the ability to translate such implied cues, the phenomenon of gayness serving as a distinct cultural identity would struggle to exist (Nicholas, 2001). The power structure created by the dominant heterosexual hierarchy defines, presides over, and polices cultural values and societal norms, such as sexual relationships and legal allowances (Chung, 2007). This leaves room for an individually-defined way to be gay in society (Fejes, 2000). Furthermore, because of the current conservative period of American culture, any existing representation of gay sexuality is presented in a manner which is neither threatening nor questioning of heteronormative mainstream society (Fejes, 2000).

The heteronormative structure extends to other areas of identity construction, such as the concept of masculinity, for both gay and straight men. Realistically, the notion of masculinity is partly a societal construction that is based on physical genitals; all humans who have penises are masculine (Fejes, 2000). Different types and levels of masculinity exist, however, which extend from the traditional hegemonic concepts of man being represented as an aggressive breeder to that of one of a stigmatized gay minority (Fejes, 2000). Straight male masculinity has been articulated in terms of identity and practices aimed at achieving the major goals within their sexual system of power and oppression. The symbolic practice of heteronormativity resonates throughout the societal matrix and further
perpetuates a structure of understanding and orientation much larger than the concept of just sexuality (Grindstaff, 2003; Henderson, 2003). Straight individuals are obviously more likely to practice heteronormative lifestyles, however, heteronormativity is a system in which gay minorities are also expected to exist, conform, and define their identities (Henderson, 2003). These identities are roughly created by stereotype formation through means of communication and media.

**SOCIAL ROLE/IDENTITY THEORY AND GAY STEREOTYPES**

The personal and sexual identity development of members of the gay community is another distinct issue that is unique from even other minority groups due to the fact that membership or belongingness cannot be immediately recognized based on identifying physical features like skin color (Raley & Lucas, 2006). Gay youth search both their immediate interpersonal and media environments for clues in helping them understand their non-heteronormative desires and sexuality (Fejes & Lennon, 2000). For most children, family and peers become the most influential factors in the formation of their identity. This differs for the majority of gay youth, because they most likely do not have an “out” role model as a member of their family or peer group (Raley & Lucas, 2006).

Despite gay alliance and social mobilization using identity politics, the constitution of sexual identity is unique to each group, as is the experience existing in the heteronormative structure of power (Grindstaff, 2003). Gay men do not share the same experience nor have similar societal expectations as the rest of the queer community. This is further depicted by social identity theory, where individuals communicate in terms of their social group membership (Tajfel & Turner, 1986). For the gay male, sexuality and identity are based on desire which itself is a fluid embodiment, and seen as too exotic and too marginal for the heteronormative mainstream society (Fejes, 2000). This is also independently defined from the meaning of sexuality and identity of that of even lesbians. The multiplicities of gay identities and concepts of masculinity range from the hyper-macho leather daddy to the effeminate, yet dominant drag queen, which both are different connotations of the definition of heterosexual masculinity (Fejes, 2000). Many times gay male culture is too easily grouped into one generalized community.
Fingerhut and Peplau (2006) acknowledge that gay males are perceived by dominant heterosexual culture to have more traditionally feminine characteristics. The consistent trend of gay men being perceived as less masculine than their straight counterparts is challenged through their analysis of performance in particular social roles (Fingerhut & Peplau, 2006). Research also suggests the prevalent stereotype of gay men as highly promiscuous is also widely accepted in society (Kunda & Oleson, 1995). Social role theory illustrates that stereotypes and representations of social groups such as those of gay men are derived in part from the roles or jobs in which a member of that group would typically be employed or social roles they would occupy in society (Eagly, 1987). Because of this, impressions and stereotypes depend largely on the individual’s social role (Fingerhut & Peplau, 2006). Gay men are overly-represented in professions of hairdressers, dancers and event planners (Fingerhut & Peplau, 2006). Interestingly enough, Fingerhut and Peplau (2006), claim that heterosexuals actually do not perceive gay men monolithically and that much research erroneously assumes that a single stereotype exists universally for all gay men.

**IMPRESSION FORMATION**

Impression formation can be considered the process in which a large variety of unorganized and incongruently presented information is combined in a cognitive representation in the effort to reach consistent meaning (Huber, 1989). Through this synthesis, information is simplified and made more useful by creating a rapid feeling of instantly and effortlessly knowing unfamiliar people (Carlston & Skowronski, 2005; Gilbert & Malone, 1995; Huber, 1989; Kahneman, 2003; Newman & Uleman, 1989). Because of the strength of this phenomenon, it is possible that the fundamental nature of first impressions may even be tied to processes of evolution that promote instant inferences about the threat-relevant characteristics of other people and one’s surroundings (Ambady & Skowronski, 2008).

Impression formation is not a passive or solitary communicative phenomenon, as it actively integrates presented information in order to achieve a coherent understanding (Huber, 1989). Initial impressions are categorical in nature and based heavily on noticeable physical cues and existing schematic frameworks (Fiske & Neuberg, 1990). The schemata involved operate in a very similar manner to those of stereotypes, where expectations and
assumptions are retrieved from available information, past experiences, and beliefs in order to interpret ambiguity and form expectations about future behavior and interactions (Huber, 1989). Perceivers tend to go beyond the specific information available and use schemata to fill in gaps in order to arrive at a coherent and consistent belief. If the information is judged to be relevant and fit, the perception stands and is further incorporated into the existing schemata. If deemed relevant and a poor fit, the initial categorization may be entirely rejected or modified to accommodate new information and a subtype category (Huber, 1989; Woolery, 2007).

In addition to schemata, other factors can be simultaneously operating to affect the accuracy of an impression (Woolery, 2007). Some of these are the gender of the person being judged (Faust, 1960, as cited in Huber, 1989), the observer’s personality and mood, the content of information, context of the interaction, the order of presentation, the credibility of the source, and one’s information processing ability (Huber, 1989). Many of these aspects of impression formation are processed outside of one’s awareness (Rule & Ambady, 2008).

Research in the area of first impressions is also referred to as person-perception, zero-acquaintance, and thin-slices of behavior, and typically concentrates on a procedure whereby judges are asked to ascribe characteristics to a target person or group (Ambady & Skowronski, 2008; Huber, 1989). Related research has demonstrated observers’ abilities to make accurate assessments based upon very brief interpersonal interactions with strangers regarding age, race, gender, personality traits, relational variables, and mental patient pathologies (Ambady et al., 1999; Carroll & Gilroy, 2002; Rule & Ambady, 2008). Factors such as sexual orientation identity have been minimally researched in the context of impression formation.

**Sexual Orientation Identity Recognition and Gaydar**

As mentioned above, research suggests that different physical cues and communication styles exist between gay and straight men. These differences may then be applicable to the nonverbal dimensions of the respective gay and straight male populations, however there is currently limited empirical support for this hypothesis. Knöffler and Imhof (2007) identified distinct patterns of nonverbal behavior that are altered in dyadic interactions when a homosexual individual was involved in the interaction (Knöffler & Imhof, 2007).
These nonverbal patterns and components have been further deconstructed and scrutinized using a variety of methodological approaches.

For example, Carroll and Gilroy (2002) and Nicholas (2001) surveyed gay communities to identify the nonverbal cues one utilizes in the construction of sexual orientation identity impression formation. Other, more quantitative research involved targets observance and judgment of videotaped behavior (Berger et al., 1987), videotaped behavior without sound (Neakrase, 2007; Rieger et al., 2010; Shelp, 2002), and in truncated segments with controlled availability of different nonverbal cues (Rule & Ambady, 2008; Rule et al., 2008). Still other studies incorporated judgment from observations of static photographs (Ambady et al., 1999; Rieger et al., 2010), impressions formed from nothing more than voice recordings (Linville, 1998; Rieger et al., 2010; Smyth, Jacobs, & Rogers, 2003), and even simple written passages referring to an unknown individual and their occupational role (Wong, McCreary, Carpenter, & Korchynsky, 1999).

Gaydar, originally borrowed as a pun from the term radar, is a dynamic and elusive ability for an individual to distinguish the sexual orientation of those in the in-group from those in the out-group (Bennett, 2006; Nicholas, 2004). Gaydar’s cultural and dialogical dimensions are not easily explained, but have been described as a form of intuition or sixth-sense that deciphers subtle messages pertaining to identification of sexual orientation (Bennett, 2006; France, 2007). This gaydar communicative system of impression formation is the front-running identity recognition device, and is believed to be invented, labeled, and fine-tuned by the gay community for the community (Nicholas, 2001). Scholars believe gaydar exists for several reasons. One of them is that gaydar is a sensibility utilized by gay individuals to find one another and create a connection below the radar of a heteronormative environment (Bennett, 2006; Payne, 2007). Another reason for its existence is that gaydar is intended to reduce the need for cruising and more efficiently identify potential partners (“Studying gaydar,” 2006). A third function is that it serves as a survival strategy that can isolate an individual from the masses (Bennett, 2006). Many heterosexual individuals, in fact, are completely unaware of the gay and lesbian subcultures in their surroundings (Woolery, 2007).

Gaydar is believed to operate by translating minute cultural clues and cues, based on awareness and experience within a social context (Bennett, 2006). Gay culture continues to
be indebted to a number of cultural phenomena, in addition to a common cultural knowledge that has been prescribed through group affiliation (Bennett, 2006). What is seen as intuition by some is actually equivalent to an apprenticeship of prolonged observational training and practice. The acquisition of gaydar abilities is much like a mechanic would come to know the sound of an engine, or a regular chess player who learns to anticipate their opponent’s next moves (Woolery, 2007).

Much literature in the social sciences assumes that sexual orientation is an invisible or concealable aspect of one’s identity, despite the continuous debates of sexual orientation identity recognition and its indicative components (Ambady et al., 1999). Current nonverbal communication research is no different, as some posit the imperceptibility of sexual orientation identity. Opponents of the existence in gaydar, or nonverbal communication behaviors that signal the sexual orientation identity of a gay individual, claim that it is “near impossible” to distinguish heterosexual and homosexual individuals (Bennett, 2006, p. 409). Woolery (2007) notes that “any psychologist specializing in gender-related issues would tell you sexual orientation is something you cannot know about a person simply by looking at them” (p. 10). The argument of intuition is also suggested to be nothing more than the recognition, acknowledgment, and inference of the performance of observed stereotypical behavior (Payne, 2007). Even members of the gay community are divided regarding the existence nonverbal communicative signs of gaydar (Woolery, 2007).

Regardless of these opinions, nonverbal communication research has challenged the inclinations of sexual orientation identity recognition through investigations of varied methodologies (Ambady et al., 1999; Berger et al., 1987; Linville, 1998; Neakrase, 2007; Rieger et al., 2010; Rule & Ambady, 2008; Travis, 1981) and the results have been suggestive. Empirical evidence does support that people are quite accurate in judging a target’s sexual orientation at a “better than chance levels of accuracy” from limited observations (Ambady et al., 1999, p. 543). Furthermore, a substantial proportion of gay men and lesbians surveyed by Ambady et al. (1999) believed that they could judge sexual orientation accurately from limited observations and behaviors, and that they were particularly accurate for others of the gay community. Shelp (2002) also suggests that most gay men think they can pick each other out in a social setting. This advantage in sexual orientation identity recognition is believed to be due to the increased interaction within the
gay community and between the gay and non-gay communities (Rieger et al., 2010) in addition to the more accurately developed schema gay individuals develop regarding sexual orientation (Wooley, 2007).

While gay individuals appear to have an advantage in impression formation of sexual orientation, the advantage is not always significant or universal between gays and lesbians (Ambady et al., 1999; Rieger et al., 2010; Shelp, 2002), and the perceptual advantage dissipates with a longer duration of observed behavior (Ambady et al., 1999). For example, many times lesbians outperform their straight female counterparts; however gay men do not always do the same when compared to straight men (Ambady et al., 1999; Berger et al., 1987). Lesbians are noted for most accurately perceiving sexual orientation, of even male targets, over other sexual orientation and demographic sex groups (Berger et al., 1987; Woolery, 2007), especially when information presented is in its most limited form (Ambady et al., 1999). Nonetheless, among others, the perceptual advantage of sexual orientation for gays and lesbians over their straight counterparts is noted by Sahgir and Robins (1973) and Westwood (1960). The following can then be hypothesized:

H1a: Gay respondents will be able to perceive the sexual orientation of the overall targets with greater accuracy than straight respondents.

Further, women, and especially lesbians, are also suggested to judge sexual orientation more accurately and consistently than men (Ambady et al., 1999; Berger et al., 1987; Linville, 1998; Woolery, 2007). In fact, the sex factor is the most widely documented group difference in accuracy of first impression research (Hall & Andrzejewski, 2008). This trend is supported by additional research regarding impression formation, where women are superior in perception of emotions and other personal characteristics over men (Hall, 1978, 1984, 2006; Woolery, 2007). This perceptual advantage holds true for judgments related to the particular nonverbal cues (Hall, 1978), across age groups (McClure, 2000; Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), and between different cultures (Biehl et al., 1997; Izard, 1971; Rosenthal et al., 1979). It is interesting to note, however, that women’s advantage of impression formation diminishes for detecting elements related to deception (Hurd & Noller, 1988; Noller, 1986). Nonetheless, the significance of women’s accuracy of perception of sexual orientation is sometimes questioned (Ambady et al., 1999; Neakrase, 2007; Rieger et al., 2010; Rule & Ambady, 2008). With this in mind, the following can then be hypothesized:
H1b: Female respondents will be able to perceive the sexual orientation of the overall targets with greater accuracy than male respondents.

The extent to which sexual orientation can be perceived from observation of behavior continues to be a topic of debate (Ambady et al., 1999). This is particularly the case when research requires observers to speculate on the sexual orientation of an unknown individual who may or may not be part of the observer’s in-group. While research suggests that personal characteristics and demographics, such as sex and sexual orientation, sometimes do not result in significant accurate perceptions, these studies are made with targets of both in-group and out-group participants. Controlling for in-group would provide insight into the sometimes contradictory results that have been observed in previous investigations that grouped all male targets together. Taking social role and social identity theories into account (Tajfel & Turner, 1986), it may be that members of in-groups would be able to better recognize others of their same community. Research of Carroll and Gilroy (2002) validates this assumption for gay men. With this in mind, the following hypotheses are proposed:

H2a: Gay male respondents will perceive the sexual orientation of the gay targets with greater accuracy than straight male respondents.

H2b: Lesbian respondents will perceive the sexual orientation of the gay targets with greater accuracy than the straight female respondents.

H3a: Straight male respondents will perceive the sexual orientation of the straight targets with greater accuracy than the gay male respondents.

H3b: Straight female respondents will perceive the sexual orientation of the straight targets with greater accuracy than the lesbian respondents.

**Nonverbal Cues of Sexual Orientation Identity Recognition**

Several nonverbal behavioral components provide insight into alternative mechanisms of gay communication that are taken for granted by the larger straight population. These dynamics include vocalic behavior and personality, and other static and dynamic behaviors, more pertinent to the present study. Research has identified significant nonverbal communicative elements which suggest associations with an individual’s sexual orientation. These elements are vocalic behaviors, eye-gaze, physical appearance, clothing, body shape, facial features, and kinesic gestures and movements.

Linville (1998) and Travis (1981) produced data that illustrated how lesbians were judged to have a more masculine form of speech, whereas gay men were perceived to
manage a more feminine manner of verbal communication. Scholars also acknowledge that “some gay men may speak in a higher pitch to distinguish themselves from straight men as a gender group” (Andersen, 2008, p. 125). Although insightful into recognition of sexual orientation, vocalic cues were not incorporated into the present research design.

Eye-gaze is arguably a crucial factor in recognition or reinforcement of a sexual orientation identity, and one of the most powerful forces that signals sexual orientation identity recognition (Nicholas, 2001, 2004). Two variations of this visual contact involved in dyadic interactions are direct stare and broken stare. These actions are often accompanied by other verbal and nonverbal behaviors that become “powerful identity recognition tools among members” of gay culture (Nicholas, 2004, p. 80).

Physical appearance is a category comprised of several components commonly used in recognizing sexual orientation identity (Nicholas, 2001). Richmond and McCroskey (2004) reported five basic reasons why nonverbal messages of physical appearance are extremely important. These reasons range from nonverbal behavior serving as the initial messages an individual sends, impacting the willingness of others to communicate, dictating the direction a relationship may take, creating a variety of value judgments, and accurately representing an individual. As a whole, it is accepted that initial nonverbal messages that are communicated through physical appearance affect how receivers of that message perceive and respond (Wrench & Knapp, 2008).

Gay culture within the U.S. is a subculture where physical appearance is important to group membership and is a reliable source of judgment (Atkins, 1998). In fact, studies on this identification phenomenon rely heavily on discoveries obtained from research on gender and sex differences. This is because gay individuals are perceived to be more gender atypical. Cues likes these are interrelated to the basic human perception of sex and gender, and may compel initial judgments or identification of sexual orientation (Johnson et al., 2007; Sirin et al., 2004).

Clothing and other elements like shoes, body decorations and accessories are symbols observed in gay culture type (Nicholas, 2001). Together, these components create a prescribed archetype of group members and perpetuate messages of a readily accepted gay cultural association. The difficulty with these malleable indicators is that they lose their in-group significance due to use in other communities, and that they are fluid due to fashion and
short-term trends. Because of this, these secondary symbols can be used as reference to sexual orientation identity, however serve more as reinforcement for the already present primary symbols.

Body shape, or morphology, and specifically the waist-to-hip ratio and attention to shoulders are documented in several current studies as significant indicators for judging sexual orientation (Johnson et al., 2007; Johnson & Tassinary, 2005, 2007; Pollick, Kay, Heim, & Stringer, 2005). Typically, women are found to have an hourglass shape and a smaller waist-to-hip ratio, while men are allegedly more tubular in their morphology and have a larger waist-to-hip ratio (Johnson et al., 2007; Johnson & Tassinary, 2005, 2007). Body morphology is a significant factor in the judgment of an individual’s sexual orientation, however when analyzed in conjunction with body motion, even more inference can be made. When an individual’s body shape and motion act in accordance to their attributed sex and gender, they are likely to be perceived as straight. When there is conflict between the two, gay inferences surface (Johnson et al., 2007; Johnson & Tassinary, 2007). Body posture was also considered by Knöfler and Imhof (2007) in their study of interpersonal interactions among three categories of paired individuals: straight individuals, gay individuals, and mixture of the two. Their data suggest that gay men do not typically imitate feminine posture types and that both gay men and lesbians display neutral postures.

Facial features are another area of physical appearance that has been researched in the context of sexual orientation identity recognition. Ambady et al. (1999) produced research where better than chance accurate judgments of sexual orientation were made by participants viewing grayscale photos of faces. Rule et al. (2008) furthered this study and found that no feature in itself is vital to the judgment of sexual orientation. Judgments received from samples of hairstyles alone were significantly more accurate than judgments from any other part of the face (Rule et al., 2008).

Other behaviors such as hand and body gestures and facial expressions assist as significant regulatory nonverbal communication (Nicholas, 2004). Ambady et al. (1999) analyzed the sexual orientation judgments of participants viewing dynamic behaviors of body movement and gestures of others. Their observations and judgments of the silent video clips resulted in much greater accuracy than simple presentation of a series of static/still photos. These findings suggest that dynamic nonverbal behavior “conveys information about sexual
orientation beyond what might be available through static aspects of appearance” (Ambady et al., 1999, p. 543).

Despite some discoveries of nonverbal cues, empirical data remain limited in the categorization related to sexual orientation judgment accuracy and impression formation (Berger et al., 1987; Carroll & Gilroy, 2002). Findings such as those noted above are clear indicators that nonverbal communication may convey important information about sexual orientation, and that the cues that trigger sexual orientation identity recognition may potentially be available to anyone, not just people in the gay community (Shelp, 2002). With this in mind, it is applicable to ask the following research questions:

RQ1: What nonverbal cues correlate with accurate perception of sexual orientation in the overall targets?

RQ2: What nonverbal cues correlate with accurate perception of sexual orientation in the gay targets?

RQ3: What nonverbal cues correlate with accurate perception of sexual orientation in the straight targets?
CHAPTER 2

METHODS

This investigation was conducted in two phases. It began with a preliminary study that was used to create the research stimulus with four straight and four gay targets.

PRELIMINARY STUDY: CREATING THE STIMULI

Research stimulus targets for this investigation were a matched sample of four straight men and four gay men between the ages of 18-30 (n=8) selected from an advertisement and electronic survey on a public social networking website in addition to announcement in an advanced communication course at a large southwestern public university. The four gay and straight stimulus participants were matched on age, ethnicity, temperament, and native language but varied equally in sexual orientation between the two groups. The announcement advertised the need for male volunteers, both gay and straight, for a study on interpersonal communication and human sexuality. Volunteers were compensated with additional course credit, if applicable, for their participation. No other remuneration was available.

Sexual orientation was self-reported through responses to a modified seven-point Kinsey scale (Kinsey, Pomeroy, & Martin, 1948). No targets were self-identified bisexual, slightly gay, or slightly straight. Six of the stimulus targets were European American/White and two of them were Mexican American/Hispanic/Latin, one in each group of sexual orientations. All but one of the targets were self-reported extroverted in temperament. All targets reported English as the native language spoken in their homes. The number of research targets needed for this study was determined by referencing similar research (Ambady et al., 1999; Berger et al., 1987; Knöffler & Imhof, 2007; Neakrase, 2007; Shelp, 2002) and arriving at a subject number that was neither exhaustive for respondents nor too limiting for the target sample. The screened group of research targets was contacted to arrange brief videotaped interviews in a campus laboratory setting.
Upon arrival to the laboratory setting, targets were presented with a secondary reiteration of the research topic and process, in addition to their provision of informed consent. Two versions of informed consent documents can be found in Appendix A. Targets were videotaped in a laboratory setting and were asked to reflect for two to five minutes on a recent experience where they were involved in an interpersonal confrontation. Upon completion of the monologue, targets were debriefed and informed of the future research process involving portions of their silent videotaped segment. All targets were given the option to immediately discontinue in the study and have their videotaped interview deleted, if so desired. The option to discontinue was selected by none of the targets. Targets were remunerated with additional course credit, if applicable.

The result was a collection of eight selected silent video segments, cut into 10-second standardized segments, as used in Ambady et al. (1999). These were to be presented to research participants through an online survey format. The selected segment of each interview occurred where each target assumed complete control of the dialog, was free from primary investigator interruption, and was engaged in discussion. Silent video clips are suggested to yield accurate judgments because they convey information regarding static and dynamic aspects of one’s behavior (Ambady et al., 1999). For better or worse, they also eliminate vocalic influences in the overall perception of the targets’ sexual orientation, and force the reliance on other nonverbal cues to recognize sexual orientation.

**MAIN STUDY**

The resulting stimulus created in the preliminary study was then employed in the main study, where participants (judges/respondents) assessed the sexual orientation of videotaped targets (targets) and categorized the nonverbal cues that were believed to be involved in recognizing sexual orientation. Quantitative analysis that employs multi-factor analysis of variance and bivariate correlations were the statistical measures used in this research.

**Participants**

Participants in the main study were comprised of a convenience sample of 533 people. Recruitment advertisements were posted on the School of Communication Research Pool at a large public southwestern university in addition to that of LGBT community pages
of a public social networking website. The latter, generated the needed population of gay men and lesbians that were difficult to obtain from the general campus-affiliated recruitment. Extra credit was distributed to students at their instructor’s discretion, when applicable. To achieve a minimal level of power of .80 and a moderate effect size of .25 the target sample size for each of the four divisions of participants, sex by sexual orientation was 64 (Cohen, 1987). This resulted in a minimum total of 246 participants needed in the study for appropriate level of power.

The participants consisted of males (n=204) and females (n=329) ranging between 18-30 years in age. The mean age of the participants was 21.88 (SD=3.45). Three hundred and seventy-five participants self-identified as straight while 158 identified as lesbian (n=69) and gay (n=89). For the purpose of this study, bisexual individuals (n=22) were not included in this investigation. The majority of the participants were European American/White (62.1%); additional participants being Mexican American/Hispanic/Latin (15.7%), Asian American (8.5%), Middle Eastern (3.8%), Pacific Islander (3.0%), Biracial/Multiracial (2.7%), African American/Black (2.5%), Asian (1.3%), and Native American (0.4%). The data of two participants was not figured into final analysis as a result of outlier effect.

**Procedures**

Participants were asked to complete a voluntary web-based survey, which included a personal demographic questionnaire and each of the eight silent video segments and their related questions. Surveys were individually accessed and completed at the convenience of each participant. Within the questionnaire, video segments of the targets were randomly ordered for each participant. Participants reported their familiarity with the videotaped target prior to assessing the target’s sexual orientation. Those respondents reporting familiarity with targets were prevented from completing additional questions, and progressed to the subsequent target video. If reporting no familiarity with the target, participants watched the 10-second segment and were prompted for their impressions regarding the target’s sexual orientation, among other measurements. This process was repeated once for each of the eight videotaped target segments. Participants were informed that none of the video recorded targets were bisexuals, and were instructed to view each silent videoed segment only once.
Measurements

Several measurements were adapted or created to examine the relationships hypothesized in this research. Each measurement is discussed, explaining the adaptations and the use of the instruments in the analysis. These measurements involve personal demographics, assessment of sexual orientation of the targets, and the associated nonverbal communicative behavior.

Demographics

All participants were asked a series of demographic items, similar to those used in the study by Neakrase (2007). These personal demographic measurements included sex, age, ethnicity, educational level and major, sexual orientation, temperament, religious and political affiliation, geographical origin, native language, and family socioeconomic status. Not all of the measurements collected were applicable to the entire participant sample group, nor were included in the research analysis.

Assessment of Sexual Orientation of Targets

The perceived sexual orientation of the eight videotaped targets was assessed by a combination of two bipolar measurements. The first set addressed either the perceived gay or straight sexual orientation of each target. The second polarized nominal measurement gauged the participant’s strong or weak degree of confidence in their judgment. This resulted in a four-item forced choice scale, similarly to that of Neakrase (2007) and Rule et al. (2008). The four-items for selection consisted of Confidently Straight, Probably Straight, Probably Gay, and Confidently Gay. These measurements can be found in Appendix B. Participants’ overall assessments were categorized as new variables, indicating the accuracy of overall perception of sexual orientation for all targets, accuracy for only straight targets, and a subsequent variable for the same impression of only gay targets.

The participants’ judgments of the sexual orientation for all eight targets were measured using a scale modification from Neakrase (2007) and Rule et al. (2008). The resulting scale consisted of participants’ accuracy of sexual orientation identity recognition for the combined eight videoed targets. The established scale suggested poor reliability of
measurement across all targets ($\alpha = .37$). No removal of any subject is suggested for improving a poorly reliable general measurement of sexual orientation identity recognition.

The participants’ judgments of the sexual orientation for gay targets were measured for the four gay targets using a scale modification from Neakrase (2007) and Rule et al. (2008). The resulting scale consisted of participants’ accuracy of sexual orientation identity recognition for the combined gay videoed targets, where a higher composite indicated higher participant accuracy. The established scale suggested poor reliability of measurement across all gay targets ($\alpha = .34$). Removal of one of the gay targets, subject 51, is suggested to increase the still poorly reliable measurement. The established scale suggested poor reliability of measurement across all targets ($\alpha = .37$), similar to the measurement of straight targets and overall subject group.

The participants’ judgments of the sexual orientation for straight targets were measured for the four straight targets using a scale modification from Neakrase (2007) and Rule et al. (2008). The resulting scale consisted of participants’ accuracy of sexual orientation identity recognition for the combined straight videoed targets, where a lower composite indicated higher participant accuracy. The established scale produced poor reliability of measurement across all straight targets ($\alpha = .37$). No removal of straight targets is suggested for improving a poorly reliable measurement.

**Nonverbal Communicative Behavior**

Following the judgment of the subject’s sexual orientation, participants were prompted to select between various nonverbal behavior cues, similarly articulated in Berger et al. (1987), Carroll and Gilroy (2002), and Rule et al. (2008). Nominal cues provided in the electronic survey were: body posture, body shape, clothing, eyes, facial expressions, hairstyle, grooming, hand/arm movement, head movement, jewelry, and leg movement. Participants were instructed to select one or a combination of behavioral cues. In addition to the nonverbal behavioral elements provided, several open-ended options enabled participants to articulate their reasoning beyond the scope of the choices. Open-ended responses were condensed into existing nonverbal categories or resulted in the addition of subsequent choices within the category of other, such as association, body movement, glasses, intuition,
leg positioning, speech rhythm, temperament, and wound/scar. The category of other was not included in the ultimate analysis.

The participants’ assessment of the nonverbal behaviors used in the perception of sexual orientation for all targets was measured using a scale similar to that of Berger et al. (1987) and Rule et al. (2008). The resulting scale consisted of the eleven overall nonverbal behavior cues used in the participants’ judgment of the sexual orientations for all eight targets. Composite data for the eleven nonverbal behaviors were as follows: body posture ($\alpha = .62$), body shape ($\alpha = .69$), clothing ($\alpha = .65$), eyes ($\alpha = .65$), facial expression ($\alpha = .62$), hairstyle ($\alpha = .59$), grooming ($\alpha = .67$), hand/arm movement ($\alpha = .62$), head movement ($\alpha = .67$), jewelry ($\alpha = .54$), and leg movement ($\alpha = .65$).

The overall nonverbal behaviors were then factor analyzed and loaded on three components: appearance ($\alpha = .74$, $M = 59.36$, $SD = 6.50$), consisting of five items (body shape, clothing, hairstyle, grooming, and leg movement); face ($\alpha = .67$, $M = 31.63$, $SD = 4.29$), consisting of three items (eyes, facial expression, and head movement); and kinesics ($\alpha = .65$, $M = 35.30$, $SD = 3.96$), consisting of two items (body posture and hand/arm movement). Reliability was improved by removing leg movement from kinesics ($\alpha = .58$) and jewelry from appearance ($\alpha = .73$).

**Statistical Analyses**

In order to test research hypotheses, a combination of multiple-factor analysis of variance with the respondents’ (1) sexual orientation identity recognition accuracy of the overall targets, (2) gaydar accuracy of just the gay targets, and (3) straightdar accuracy of just the straight targets were run using alpha criteria of 05. Test of means between subject groups, split by sex, regarding gaydar accuracy of the gay targets and straightdar accuracy of the straight targets, followed significant findings. The nonverbal scales were factor analyzed and separated based on the rotated component matrix. After the items were factored together a reliability analysis was run as well. Once the scales were determined to be reliable, Pearson’s Correlation Coefficients were employed to determine statistically significant relationships between the nonverbal behavior variables tested.
CHAPTER 3

RESULTS

The first pair of hypotheses (1a & 1b), which suggested that gay respondents would be able to perceive the sexual orientation of the targets with greater accuracy than straight respondents, and that female respondents would be able to perceive the sexual orientation of the targets with greater accuracy than male respondents, was not supported. The ANOVA indicated no main effect for sex $F(1,344) = 1.38, p = .12$, nor sexual orientation $F(1,344) = .22, p = .32$. In addition, there were no significant interaction effects for sex or sexual orientation $F(1,344) = .07, p = .40$.

In summary, gay respondents did not have a significantly greater ability than straight respondents to accurately perceive the sexual orientation of the overall targets. The same was true for female respondents, who did not have a significantly greater ability than male respondents to accurately perceive the sexual orientation of the overall targets. Furthermore, no combination of group demographic, as related to sex or sexual orientation of respondents, positioned respondents to perceive the sexual orientation of the overall targets with greater accuracy than any other.

The second pair of hypotheses (2a & 2b), which suggested that gay male respondents would be able to perceive the sexual orientation of the gay target targets with greater accuracy than straight males and that lesbian respondents would be able to perceive the sexual orientation of the gay target targets with greater accuracy than straight female respondents, was partially supported. The ANOVA indicated no main effect for sex $F(1,412) = .10, p = .38$, nor significant interactions among either of the variables of sex or sexual orientation $F(1,412) = .04, p = .42$. There was, however, an observed main effect for sexual orientation $F(1,412) = 17.22, p = .00, \eta^2 = .04$. This was confirmed through several tests of means (all tables can be found in Appendix C). The first indicate significant results, $t(414) = 4.33, p < .001, \eta^2 = .04$, between the group of gay respondents’ gaydar accuracy ($M = 10.41, SD = 1.21$) and the group of straight respondents’ gaydar accuracy ($M = 9.82, SD = 1.30$).

The final two tests of means, which were split by sex, for gay male ($M = 10.44, SD = 1.20$)
and straight male (M = 9.83, SD = 1.30) respondents’ gaydar accuracy for gay targets, in addition to that of lesbian (M = 10.37, SD = 1.23) and straight female respondents’ gaydar accuracy for gay targets (M = 9.81, SD = 1.30) also respectively indicate significant, t(153) = 3.02, p < .01, η² = .06 and t(259) = .29, p < .01, η² = .03, differences between the sample populations.

In summary, gay male respondents more accurately perceived the sexual orientation of the gay target targets than straight males. The same was true for lesbian respondents, who more accurately perceived the sexual orientation of the gay target targets than straight female respondents. Additionally, data indicate that gay respondents as a whole more accurately perceived the sexual orientation of the gay targets than the group of straight respondents.

The third pair of hypotheses (3a & 3b), which suggested that straight male respondents and straight female respondents would be able to perceive the sexual orientation of the straight targets with greater accuracy than gay males and lesbian respondents, was not supported. The ANOVA indicated no main effect for sexual orientation F(1,422) = 2.30, p = .07, nor significant interactions among either of the variables of sex or sexual orientation F(1,422) = .21, p = .32. There was, however, an observed main effect for sex F(1,422) = 3.41, p = .03, η² = .02. This was confirmed to be significant, t(424) = .23, p < .01, η² = .01, through a test of means (Table 1.) between the group of male respondents’ straightdar accuracy (M = 7.78, SD = 1.76) and the group of female respondents’ straightdar accuracy (M = 7.39, SD = 1.63).

In summary, straight male respondents did not have a significantly greater ability to accurately perceive the sexual orientation of the straight targets than gay males. The same was true for straight female respondents, who did not have a significantly greater ability to accurately perceive the sexual orientation of the straight targets than lesbian respondents. However, because of the main effect of sex, data indicate that female respondents as a whole more accurately perceived the sexual orientation of the straight targets than the group of male respondents.

The first research question relating to nonverbal behavior (RQ1), which suggested possible relationships between nonverbal cues and accurate perception of the overall targets, was minimally confirmed. The correlations indicated a small positive relationship, r(346) = .12, p = .01, r² = .01, between the accuracy of perception of the overall targets and kinesic
nonverbal behaviors used in the judgment. Additional correlations between facial nonverbal behaviors and general appearances revealed no significant relationships with accurate perception of the overall targets. These data suggest that respondents with more accurate gaydar reported relying more on kinesic nonverbal behavior for their judgment of the overall group of targets.

The second research question relating to nonverbal behavior (RQ2), which suggested possible relationships between nonverbal cues and accurate perception of the gay targets, was verified. The correlations indicated positive relationships between the accuracy of perception of the gay targets and facial nonverbal behaviors, \( r(414) = .18, p = .00, r^2 = .03 \), and general appearances, \( r(414) = .12, p = .01, r^2 = .01 \), used in the judgment. Additional correlations between kinesic nonverbal behaviors revealed no significant relationships with accurate perception of the gay targets. These data suggest that respondents with more accurate gaydar reported relying more on facial nonverbal behaviors and nonverbal cues associated with general appearances for their judgment of the group of gay targets.

The third, and final, research question relating to nonverbal behavior (RQ3), which suggested possible relationships between nonverbal cues and accurate perception of the straight targets, was minimally confirmed. The correlations indicated a slight negative relationship between the accuracy of perception of the straight targets and kinesic nonverbal behaviors used in the judgment, \( r(424) = -.20, p = .00, r^2 = .04 \). Additional correlations between facial nonverbal behaviors and general appearances revealed no significant relationships with accurate perception of the straight targets. These data suggest that respondents with less accurate straightdar reported relying more on kinesic nonverbal behavior for their judgment of the group of straight targets.
CHAPTER 4

DISCUSSION

This study examined the relationships between accurate perception of individuals’ sexual orientation, or gaydar, and personal demographics such as sex and sexual orientation. It also examined a new phenomenon called straightdar, the extent to which one can correctly identify heterosexual people. Additionally, this investigation further scrutinized the use of particular nonverbal behaviors involved in the communicative phenomenon of gaydar/straightdar. The following section addresses research findings in the context of impression formation and the nonverbal behaviors associated with sexual orientation, in addition to research limitations and directions for future investigation. Despite the inability to create a highly reliable measure of gaydar/straightdar to test the stated hypotheses and research questions, the following results were uncovered:

- For the overall target group, no combination of personal demographics, as related to respondents’ sex or sexual orientation, positioned respondents to more accurately perceive individuals’ orientation.
- For the gay target group, gay respondents, in general, perceived individuals’ sexual orientation with greater accuracy than straight respondents. More specifically, gay male respondents perceived individuals’ sexual orientation with greater accuracy than straight male respondents. Additionally, lesbian respondents perceived individuals’ sexual orientation with greater accuracy than straight female respondents.
- For the straight target group, female respondents, in general, perceived individuals’ sexual orientation with greater accuracy than male respondents.
- For the overall target group, respondents who were more accurate with individuals’ sexual orientation reported relying on kinesic nonverbal behaviors.
- For the gay target group, respondents who were more accurate with individuals’ sexual orientation reported relying on facial nonverbal cues and general appearances.
- For the straight target group, respondents who were less accurate with individuals’ sexual orientation reported relying on kinesic nonverbal behaviors.

IMPRESSION FORMATION AND GAYDAR

The foundation of this research assumes that accurate perception of sexual orientation, or gaydar/straightdar, is possible from limited information without the presence
of vocalic and paralinguistic cues. This assumption originates from results of an array of diverse research designs and quantitative approaches (Ambady et al., 1999; Neakrase, 2007; Rieger et al., 2010; Rule & Ambady, 2008; Rule et al., 2008; Shelp, 2002). Previous research involving more verbal-related cues (Bailey, 2003; Berger et al., 1987; Gaudio, 1994; Linville, 1998) and qualitative inquiry (Carroll & Gilroy, 2002; Nicholas, 2001, 2004) have proved equally insightful and contribute to the general conversation regarding sexual orientation identity recognition. The current research intends to provide additional insight into a very complex and intricate communicative phenomenon involving human behavior and sexuality, which will now be explored.

Upon initial review, results for this research pertaining to personal demographics do not appear to indicate that one group of individuals is significantly more perceptive of one’s sexual orientation over another for the overall target group. Data illustrate that both gay respondents and female respondents do not have significantly greater perception accuracy rates than straight and male respondents for the overall group of videotaped targets. No combination of personal demographics appears to enable respondents to be more accurate in their act of sexual orientation impression formation. These demographic sexual orientation identity recognition inconsistencies concur with some previous studies (Neakrase, 2007; Rieger et al., 2010; Shelp, 2002), but contradicted a handful of others that report the superior level of sexual orientation identity recognition for gay men and lesbians (Ambady et al., 1999; Berger et al., 1987; Sahgir & Robins, 1973; Sylva, Sell, & Bailey, 2007).

However when further deconstructing sexual orientation identity recognition into the separate groups of only gay and straight targets, a nuanced and more informative phenomenon emerged. Gay respondents reported significantly more accurate gaydar for the gay targets than their straight counterparts. This is further split by sex, where data indicate that gay male respondents are more accurately perceptive with gaydar than straight males, and lesbian respondents perceive gaydar more accurately than straight females. When these results are viewed in comparison to sexual orientation identity recognition for the overall targets, data indicate that gay men and lesbians are more accurately identifying the gay targets, but also commonly mistaking many of the straight targets as gay. This balancing act of accuracy and error is why sexual orientation identity recognition for the overall targets do not produce significant accurate results as related to sex or sexual orientation.
This discovery mirrors several previous results which argue that gay men and lesbians are in fact more accurate with their perceptions of sexual orientation identity recognition over their straight counterparts (Ambady et al., 1999; Berger et al., 1987; Sahgir & Robins, 1973; Sylva et al., 2007; Westwood, 1960). This difference is suggested to exist because of the similarly oppressed and marginalized social groups in which they exist (Carroll & Gilroy, 2002; Nicholas, 2001, 2004; Tajfel & Turner, 1986). Research pertaining to impression formation of people of different ethnicities suggests that members of the same ethnic group are more perceptive regarding traits, characteristics, and identities of other individuals of that same group (Blair, Judd, & Fallman, 2004; Elfenbein & Ambady, 2003; Judd, Ryan, & Park, 1991; Ryan, Judd, & Park, 1996). Like ethnicity, a similar phenomenon regarding in-group perception perhaps may also apply to individuals that share similar sexual orientation.

Many individuals who identify with or are part of the gay community believe to have become competent by learning what signals to look for when attempting to locate others who share this commonality (Nicholas, 2004). Despite overall accuracy rates, this nuanced observation suggests that gay individuals are more likely to assume in-group status with an unknown individual, and seek indicators for that verification (Frable, Platt, & Hoey, 1998; Tajfel & Turner, 1986). Particularly for gay men in this research, this enhanced capacity for gaydar accuracy may be an adaptive mechanism driven by sexual or romantic desires (Shelp, 2002; Woolery, 2007) that becomes a skill which is developed from repeated speculation of one’s sexuality. This perceptive skill is one that straight men have no need or desire to question (Shelp, 2002). Another rationale could be that much of the gay individual’s world is so heavily embedded and involved in gay culture and lifestyle, that mainstream societal heteronormativity is less familiar.

In short, when presented with the question of sexual orientation identity recognition, gay individuals have the likelihood of mistakenly assuming that straight males are also gay. This could have very embarrassing or even dangerous implications for the mistaken gay individual, as socially stigmatized and marginalized groups may need to be guarded in managing or revealing their identity (Ambady et al., 1999).

In a common vein, a similar superior rate of straigntdar accuracy was discovered for women with the straight target group. Female respondents were significantly more accurate in straigntdar judgment for the straight targets than their male counterparts. Split by sex this
does not yield significant data when comparing the straighthdar accuracy between males and females of different sexual orientations. Straight women do not have significant straighthdar accuracy over lesbians, nor do straight men over gay men. When these results are viewed in the larger context of sexual orientation identity recognition for the overall targets, this indicates that females in general are more accurately identifying the straight targets, but also commonly mistaking many of the gay targets as straight. This combination of accuracy and error is again why sexual orientation identity recognition for the overall targets does not produce significant accuracy results as related to sex or sexual orientation.

This insight supports previous studies regarding the superiority of females in the act of impression formation and nonverbal receiving ability (Biehl et al., 1997; Hall, 1978, 1984, 2006; Hall & Andrzejewski, 2008; Izard, 1971; McClure, 2000; Rosenthal et al., 1979; Woolery, 2007). Furthermore, explanation regarding the female superiority in impression management lends itself an evolutionary explanation. It could be that females have a more adapted ability to identify potential mates and determine the boundaries of their reproductive opportunities (Miller & Todd, 1998; Thornhill & Gangestad, 1996). Theoretically, this would apply to both lesbian and straight women, as both groups have equal potential to biologically reproduce, regardless of their sexual orientation and relationship/partnership status. For more practical reasons, straighthdar would be more significant to straight women and their pursuit for potential partners. Less immediate harm, but still embarrassment or emotional hardship, can result from a female’s mistaken judgment of a gay male’s sexual orientation.

Studies on sexual orientation identity recognition will continue to be significant to the field of communication because they provide insight into another way that humans define their selves and social identities, identify communities through communicative rituals, and because they further extend the boundaries of research on nonverbal perceptual skills (Nicholas, 2004). Gaydar has gained attention in scholarly work, as information obtained from its study can promote understanding of gay culture, contribute to larger in-group/out-group issues, advance knowledge of identity recognition, and increase a greater level of acceptance for the gay community through insight and understanding (Nicholas, 2001). While some scholars may argue that gay visibility was an issue of the HIV/AIDS era, and not as significant in current times to current research, it should be disputed that issues of equality
and understanding, such as the right to marry, adopt children, and openly serve in the military in addition to employment discrimination and fear of hate crimes are still very much pivotal social issues in the U.S. (Colman, 2005) and directly relate to the visibility of the gay community.

Other marginalized groups in society may also find aspects of sexual orientation identity recognition applicable to their status in a dominant society (Nicholas, 2001). While exploring impression formation related to sexual orientation is a significant tool in the process of gay world-making, it does not imply that it is a resource that can accurately be used by just any individual (Bennett, 2006). Gaydar, nonetheless, cannot yet be entirely scientifically ascertained (Bennett, 2006). For the moment scholars will have to rely on the limited identified nonverbal messages and signals with which it is associated and continue the scholarly dialog to uncover more consistent findings.

**Nonverbal Communicative Behavior**

While impressions of an individual’s ethnicity, sex, age, and social status are more easily discerned and the associated nonverbal cues are more readily visible, sexual orientation impression formation is still ambiguous and its signals are challenging to articulate (Ambady et al., 1999; Carroll & Gilroy, 2002; Rule & Ambady, 2008). Previous research has begun to uncover the relationship with nonverbal behavior in general (Knöfler & Imhof, 2007) and at a more cue specific approach (Ambady et al., 1999; Berger et al., 1987; Johnson et al., 2007; Rieger et al., 2010; Rule & Ambady, 2008; Rule et al., 2008). This also includes research related to paralinguistics and verbal communication (Gaudio, 1994; Linville, 1998). Data for this research contributes to the scholarly dialog of cue specific, which will now be explored.

Of particular interest is the reported perceived significance of kinesic or dynamic nonverbal behaviors in the phenomenon of accurate gaydar. With regard to the overall target group, respondents who were more accurate with sexual orientation identity recognition reported relying on specific kinesic movements. This result coincides with previous findings regarding the importance of movement in the general process of accurate impression formation (Ambady et al., 1999; Carroll & Gilroy, 2002; Johnson et al., 2007; Rieger et al., 2010). The significance of the role of kinesic behavior in sexual orientation identity
recognition may be attributed to prominent societal stereotypes of gay men. These stereotypes perpetuate messages that gay men diverge from traditional masculine behavior and that they are more likely to possess more feminine characteristics and dynamic movements than their straight counterparts (Fingerhut & Peplau, 2006; Neakrase, 2007; Rieger et al., 2010).

Respondents with accurate gaydar for the gay targets reported that they significantly relied on general appearance and facial signals in the construction of their impressions. These cues have been recognized as prominent signals in existing research (Ambady et al., 1999; Carroll & Gilroy, 2002; Nicholas, 2001, 2004; Rule & Ambady, 2008) and have assisted respondents to accurately judge gaydar from nonverbal personal cues in as little of time as 50ms (Rule & Ambady, 2008). Furthermore, many of these cues are recognized in being self-modified by an individual, such as the case of clothing, hairstyle, and grooming. These nonverbal cues can be highly influenced through cultural norms, albeit stereotypical in nature or not.

Kinesic movements for the individuals judging the straight targets indicated a very interesting observation. In contrast to the group of gay targets, where dynamic body movements were reported as the prominent cues for accurate gaydar, indications of kinesic movements used as the basis of gaydar actually negatively correlated with accurate judgment. While reinforcing the importance of kinesic behaviors in the overall process of sexual orientation identity recognition (Ambady et al., 1999; Carroll & Gilroy, 2002; Nicholas, 2001, 2004; Rule & Ambady, 2008), the reported reliance on this cue and its implications are somewhat in contradiction to impression formation for the overall target group. Respondents may rely more haphazardly on kinesic behavior for their judgments of sexual orientation.

The ultimate significance of nonverbal communication research regarding identification of sexual orientation has the greatest implications for the gay community and its struggle against discrimination and homophobia, but also illustrates the challenge gay individuals have in identifying similar others and seeking interpersonal relationships and partnerships. Studies have shown that the “primary source of our emotional state is our interaction with others”, and is increasingly significant with others of similar nature (Andersen, 2008, p. 162). This reality, influenced by communication and recognition of
identity, is particularly pertinent and challenging for the gay community. Because of the shortcomings of sexual identity recognition and its duality of acting as both invisible and visible, young gay people regularly feel isolated and alone; gay individuals wrestle with hurt and depression associated with sexual rejection, and the larger gay community is susceptible to homophobic hostility and violence (Ambady et al., 1999; “Studying gaydar,” 2006).

LIMITATIONS

Research pertaining to sexual orientation is not without its own limitations and challenges. This study is no exception. In this section, research limitations will be explored as related to sample selection and research design involving both subject and participant groups, and the measurements of nonverbal behaviors.

Criticisms of generalizability of the results originate with recruitment and participation of targets in this study. Research samples that are representative of the larger gay community are challenging to identify and difficult to recruit. Such was the case with this investigation that was executed without the support and collaboration of local LGBT centers. Those individuals that willingly participate in a research study publicized on public social media platforms about sexual orientation are more likely to be more comfortable with their own identity, have conformed to or voluntarily embrace societal stereotypes of gay mainstream culture, or see their sexual orientation as a central point of their identity (Ambady et al., 1999; Lippa, 2005). These volunteers will be open, or out with their sexual orientation. This level of openness is recognized to typically involve noticeable behavioral adjustments (Carroll & Gilroy, 2002). Other individuals, not yet comfortable with their sexual orientation or closeted would probably decline to participate in such a study involving impression formation. Because of this recruitment reality, it is possible that the research sample of videotaped targets involved more gay men that are less discrete or more obvious regarding their sexual orientation.

Even if sufficient samples of gay targets were recruited, they may not be as representative of a generalizable gay population, similarly noted by Ambady et al. (1999), as the gay community is diverse. The phenomenon and public image of being gay is inevitably created by mainstream society, but also by the gay community’s own communication of culture and ritual within. Gayness has become a social phenomenon that involves a set of
beliefs, attitudes, and traditions that are unique to its own community (Gaudio, 1994). Even within this gay community, there is heterogeneity. Differences within a universal gay culture serve to further blur the continuity and connectedness of communication within gay communities. This reality creates additional challenges as the gay community is identified universally, making generalizations for research of the sort extremely challenging.

This study’s research design also has some limitations. This is particularly true when taking into consideration contextual factors and targets’ personal motivators which are unknown. Being videotaped in a constructed monologue may have reduced the actual nonverbal communicative behavior reflective of their respective sexual orientations. The videotaped interview design fails to provide a true incentive or motivational grounds in a natural setting, which would motivate a target to be more transparent with their sexual orientation. Inversely the same can be said for concealing one’s true sexual orientation, with the absence of imminent threat or embarrassing consequences. Thus, it is fair to state that accuracy in detecting male sexual orientation may vary, and be modified as a function of the targets’ individual intentions to express or conceal their sexual orientation (Rule & Ambady, 2008). These are further influenced by the conditions of the environment in which the interaction occurs.

In a similar light, the artificiality of the research design raises questions about the participants’ ability to make accurate perceptions of a target individual’s sexual orientation. Such judgments are influenced by several factors that are immeasurable in the current research design. These factors can range from a perceiver’s intrinsic motivation (Rule & Ambady, 2008; Shelp, 2002), preconceived notions and experiences with gay culture (Hajek & Giles, 2005; Harris & Garris, 2008), to inner states and moods (Huber, 1989). All of these factors can influence the participant’s impression and perception in a natural setting. The simple nature of even posing the question of sexual orientation impression formation to straight men is a bit artificial, as most assume heteronormative existence (Shelp, 2002) and have little concern in speculating the sexuality of another male.

Lastly, the manner in which participants self-reported their reliance on particular nonverbal cues for their judgments may limit research data. It is important to keep in mind that respondents’ nonverbal selections are their beliefs in relying on nonverbal cues, and not entirely indicative of the actual cues they were processing. Furthermore, this research design
allowed respondents to select a variety of different nonverbal cues, which minimized the importance of some cues for being reported as the most informative for impression formation of gaydar for each subject. Results may have been different if respondents were allowed to select only one nonverbal cue for their judgment.

In conclusion, this study served not only to provide information and present current research regarding nonverbal communication of sexual orientation identification, but also to illustrate how complex, limited, and lacking gay studies are represented in academia. Even within this decade, research and publications regarding nonverbal communication and/or identity recognition are extremely sparse. As both the fields of nonverbal communication and gay studies progress, this paucity of research is something that can hopefully be remedied as it can provide great insight into another aspect of human behavior.

**FUTURE RESEARCH**

While the scientific phenomenon of gaydar may still be under scrutiny, elements of nonverbal communication behavior have recently shed light on the judgment and accuracy of sexual orientation identity recognition (Ambady et al., 1999; Johnson et al., 2007; Johnson & Tassinary, 2005, 2007; Neakrase, 2007; Rule et al., 2008; Shelp, 2002; Sirin et al., 2004; Wrench et al., 2008). Nonverbal behaviors such as eye-gaze, vocalics, kinesics, and general physical appearance are frontrunners in this line of current research; however this does not mean to minimize the significance of other nonverbal behaviors that can provide additional insight into sexual orientation identity recognition. With increased research and attention, perhaps these additional elements will prove more significant to the recognition of sexual identity.

This current research focused on gay men in one region of the United States. It would be interesting to apply future research to larger populations in more expansive regions and cultures. This would include target groups of lesbians and bisexual individuals, and would extend to related research in other parts of the United States, or other international cultures. Findings may suggest that other cultural demographics, such as age, ethnicity, political affiliation, educational background, and socioeconomic status influence nonverbal communication at both a sender and perceiver level, more so than a sweeping generalization.
of uniform behavior based on sexual orientation. Other societal factors, such as media exposure to and personal contact with gay individuals, may also elicit interesting results.

Furthermore, additional research could examine individual results for each videotaped target to ascertain if certain targets’ sexual orientations are more easily identified, and the nonverbal behaviors reported in the accurate judgment. Further analysis of respondents who were most accurate, or high performers of sexual orientation identity recognition, and their personal demographics of sex and sexual orientation would provide additional insight into the phenomenon. The personal demographics of high performers could be analyzed from a variety of additional approaches, such as: ethnicity, personality, political/religious affiliation, socioeconomic status, education, and geographic region.

As a final note, it is of additional interest that the current trend of nonverbal communication research, including other studies in the social sciences, links concepts associated with sexual orientation to that of gender and sex studies. The general prototype in scientific observations regarding impression formation of gaydar in fact is heavily focused on attention to typical gender and sex behavior deviation (Johnson et al., 2007; Neakrase, 2007; Rieger et al., 2010; Sirin et al., 2004). Human sexuality may be a completely separate construct in itself. From a perspective of queer theory, this may not be appropriate and may be extremely limiting in its approach for not only the individuals studies in the process, but the scholarly inquiry into human sexuality as a whole.
REFERENCES


APPENDIX A

STATEMENTS OF INFORMED CONSENT
STATEMENT OF INFORMED CONSENT: TARGETS

You are being asked to participate in a research study. Before you give your consent to volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

Investigators: Wesley D. Hansen is the primary investigator for this research, a student at San Diego State University. The SDSU faculty and Communication department supervisor for this research is Dr. Peter Andersen.

Purpose of the Study: The purpose of this study is to examine how sexual orientation plays a role in the messages people communicate. For scientific reasons, this consent form does not include complete information about the study hypotheses and the research questions being tested. You will be fully debriefed following your participation in the research.

Description of the Research Procedure: You have been selected to participate in this study based on your response to a previously submitted online personal inventory questionnaire. In a moment you will be asked by the principal investigator to respond to and elaborate on a past interpersonal interaction involving confrontation. Your monologue/conversation will be videotaped and should last between three and five minutes. Subsequently your video will be used in another part of this study, where a brief segment of your video-recorded conversation will be shown to research participants that will be asked questions about you. With the inclusion of your previously submitted online personal inventory questionnaire, your complete participation in this study should take no longer than 20 minutes and is entirely voluntary.

Risks or Discomforts: Because of the personal nature of the questions asked in this study, you may reflect on unpleasant memories. There exists minimal potential for psychological discomfort. You do not have to share anything you are uncomfortable sharing. If you begin to feel uncomfortable, you may discontinue participation, either temporarily or permanently.

Benefits of the Study: There are no benefits that you can reasonably expect from this study.

Confidentiality: Your identity will be confidential in this study. Access to all research based electronic files, such as the information gathered from your personal inventory questionnaire, will be password protected in the personal computer of the primary investigator. Original recordings of interviews will be deleted upon upload to electronic form. This consent form, including your birth name, will be maintained in a secure file at the residence of the primary investigator for a period of three years. Confidentiality will be maintained to the extent allowed by law.

Incentives to Participate: You will not be paid to participate in this study.

Costs and/or Compensation for Participation: There is a cost to park on the SDSU campus where the research will take place. You will be compensated with a parking pass for your time on campus.
Voluntary Nature of Participation: Participation in this study is voluntary. Your choice of whether or not to participate will not influence your future relations with the investigator or San Diego State University. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time prior to data collection without penalty or loss of benefits to which you are allowed.

Questions about the Study: If you have any questions about the research now, please ask. If you have questions later about the research, you may contact the principal investigator at Communication.Sexuality.2010@gmail.com. If you have any questions about your rights as a participant in this study, you may contact the Division of Research Affairs at San Diego State University (telephone: 619-594-6622; email: irb@mail.sdsu.edu).

Consent to Participate: The San Diego State University Institutional Review Board has approved this consent form, as signified by the Board's stamp. The consent form must be reviewed annually and expires on the date indicated on the stamp.

Your signature below indicates that you have read the information in this document, have had a chance to ask any questions you have about the study, and are between 18-30 years of age. Your signature also indicates that you agree to be in the study and have been told that you can change your mind and withdraw your consent to participate at any time prior to the period of data collection. You have been given a copy of this consent form for your records.

____________________________________
Name of Research Subject (please print)

_____________________________________ __________________
Signature of Research Subject    Date

_____________________________________ __________________
Signature of Primary Investigator    Date
**STATEMENT OF INFORMED CONSENT: PARTICIPANTS**

You are being asked to participate in a research study. Before you give your consent to volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

**Investigators:** Wesley D. Hansen is the primary investigator for this research, a student at San Diego State University. The SDSU faculty and Communication department supervisor for this research is Dr. Peter Andersen.

**Purpose of the Study:** The purpose of this study is to examine how sexual orientation relates to the messages that people communicate. Participants are selected on basis of their enrollment in introductory communication courses at San Diego State University and participation in LGBT affiliated communities. Additionally, participants must be between the ages of 18 and 30 years of age, must be free of hearing or visual disabilities, and must have access to internet-capable computer.

**Description of the Research Procedure:** If you choose to participate in this study you will be asked to:

- First complete a personal inventory questionnaire. You will be asked general questions concerning your age, sex, ethnicity, sexual orientation, education, religion, political-affiliation, etc. This should take approximately 10 minutes to complete
- Shortly following, you will be shown a series of 10 silent video clips from previously recorded conversations. Each clip will last one minute and will be followed by a 10 second break. During each clip break, you are asked to complete your response in the appropriate survey section. Your self-reported survey data will be analyzed for both your judgment of the subject’s sexual orientation in addition to the reasons you provide for your decision. This portion of the study should take 11 minutes to complete
- After viewing the video clips, you will also be asked to complete a survey regarding your personal contact and media exposure to gay men. This survey should take approximately 20 minutes to complete. Your total participation in this study should take no longer than 45 minutes.

**Risks or Discomforts:** Because of the personal nature of the questions asked in this study, you may reflect on unpleasant memories while responding to a survey question. You do not have to answer any question you are uncomfortable answering. There exists minimal potential for psychological discomfort. If you begin to feel uncomfortable, you may discontinue participation, either temporarily or permanently.

**Benefits of the Study:** You may gain insight into nonverbal communication research topics and procedures. Additionally, participation in this study may challenge and expand your preconceived notions of nonverbal communication behavior, stereotypes of gay men, and how both dynamics interplay with the perception and judgment of sexual orientation identity.
Confidentiality: Your identity will be confidential in this study. If you intend to receive extra credit for your undergraduate introductory communication course at San Diego State University, however, you will be prompted for your RED ID in the appropriate survey field. Only the primary investigator will have access to the electronic document with this confidential information. Access to all research based electronic files will be username and password protected. Electronic data, including approval of this consent form, will be maintained in a username and password protected electronic file in the personal computer of the primary investigator for a period of three years. Confidentiality will be maintained to the extent allowed by law.

Electronic Survey Recommendations: Due to the nature of the questions being asked in this study, we cannot guarantee that your data will not be connected to your responses on the user side, server side, and in transit. To protect your privacy, you will not be asked to put your name or address on the survey. In addition, please complete the electronic survey in a private location; finish the survey in one sitting, and shut down the computer or browser window after the survey is completed. The data that is collected from the online survey will be downloaded into an excel document. Only the principle investigator in this study will have access to this data.

Incentives to Participate: You will not be paid to participate in this study, however you may receive extra credit for your undergraduate introductory communication course at San Diego State University, per the approval of your instructor.

Costs and/or Compensation for Participation: No costs are associated with participation in this study.

Voluntary Nature of Participation: Participation in this study is voluntary. Your choice of whether or not to participate will not influence your future relations with your instructor, the investigator or San Diego State University. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty or loss of benefits to which you are allowed.

Questions about the Study: If you have any questions about the research now, please ask. If you have questions later about the research, you may contact the primary investigator at Communication.Sexuality.2010@gmail.com. If you have any questions about your rights as a participant in this study, you may contact the Division of Research Affairs at San Diego State University (telephone: 619-594-6622; email: irb@mail.sdsu.edu).

Consent to Participate: The San Diego State University Institutional Review Board has approved this consent form, as signified by the Board's stamp. The consent form must be reviewed annually and expires on the date indicated on the stamp.

Your continuation in this study indicates that you have read the information in this document, have had a chance to ask any questions you have about the study, and are between 18 and 30 years of age. Your continuation also indicates that you agree to participate in the study and know that you can change your mind and withdraw your consent to participate at any time. It is recommended that you retain a printed copy of this consent form for your own record.
Greetings prospective research subject and participant,

Thank you for your time and interest in assisting me with my research regarding interpersonal communication and human sexuality. My name is Wesley D. Hansen and I am a M.A. candidate in the School of Communication at San Diego State University. I am currently pursuing this research as part of the thesis requirement for my degree. My ultimate results depend entirely on the open and honest participation of people like you.

As you will see below, the following survey is very simple and self-explanatory. Your participation is strictly voluntary and anonymous. Because of this, I strongly encourage you to respond to the below questions in the most honest and objective manner. The data obtained from the compilation of volunteers’ responses will provide insight into interpersonal communication and human sexuality. Once again, thank you for your personal contribution. Should you have any further questions or concerns, please do not hesitate to contact me directly at Communication.Sexuality.2010@gmail.com.

Please respond to the following questions in the appropriate manner:

1. My sex is (circle one): FEMALE MALE

2. My age is (indicate in years): _________

3. My undergraduate college major(s) is(are):
   □ I am a COMM 103 student (please "√" if appropriate and include RED ID in order to insure your receipt of additional credit). RED ID # __________________

4. My sexual orientation can be best described as (circle one from the scale below):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusively Straight</td>
<td>Bisexual</td>
<td>Exclusively Gay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. My level of being “out” with my sexual orientation is (circle one from the scale below ONLY if you responded with a “5”, “6”, or “7” on question #4. Otherwise, leave BLANK):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Totally</td>
</tr>
</tbody>
</table>

6. My ethnicity can best be described as (select one):

   AFRICAN AMERICAN/BLACK  MIDDLE EASTERN
   ASIAN AMERICAN  PACIFIC ISLANDER
   EUROPEAN AMERICAN/WHITE NATIVE AMERICAN
   MEXICAN AMERICAN/HISPANIC/LATINO/A
   OTHER (please specify): __________________________

7. English is the predominant language spoken in my home (circle one): YES NO

8. My US state or country of origin is: (US state/country name): __________________________
9. My personality and temperament can be best described as (circle one from the scale below):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Introverted</td>
<td>Somewhat Introverted</td>
<td>Moderate</td>
<td>Somewhat Extroverted</td>
<td>Very Extroverted</td>
</tr>
</tbody>
</table>

10. My religion/spirituality can be best described as (circle one from the scale below):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am Neither Religious nor Spiritual</td>
<td>I am not Religious but I am Spiritual</td>
<td>I am Slightly Religious</td>
<td>I am Somewhat Religious</td>
<td>I am Very Religious</td>
</tr>
</tbody>
</table>

11. My political views can be best described as (circle one from the scale below):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Conservative</td>
<td>Somewhat Conservative</td>
<td>Moderate</td>
<td>Somewhat Liberal</td>
<td>Very Liberal</td>
</tr>
</tbody>
</table>

12. My highest level of education is (circle one from the scale below):

- Less than High School
- High School Diploma (GED)
- Some College
- Associates Degree/Technical Certificate
- Completed College
- Some Graduate School
- Completed Graduate School

13. Current (or my highest obtained) college class-level is: (circle one from the scale below only if you answered “2” or “3” in the previous question):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year</td>
<td>Sophomore</td>
<td>Junior</td>
<td>Senior</td>
</tr>
</tbody>
</table>

14. My MOTHER’S highest level of education is (select one from the scale below):

- Less Than High School
- High School Diploma (GED)
- Some College
- Associates Degree/Technical Certificate
- Completed College
- Some Graduate School
- Completed Graduate School
- Cannot Say/Have No Contact

15. My FATHER’S highest level of education is (select one from the scale below):

- Less Than High School
- High School Diploma (GED)
- Some College
- Associates Degree/Technical Certificate
- Completed College
- Some Graduate School
- Completed Graduate School
- Cannot Say/Have No Contact

THANK YOU FOR YOUR PARTICIPATION!
RESULTS OF THIS STUDY WILL BE MADE AVAILABLE UPON REQUEST.
BETTER GAYDAR USAGE ESTIMATION SELF SURVEY
(GUESS)

In a moment you will be shown 8 10-second silent segments from previously recorded conversations involving 8 different men. Some of these men are straight, while others are gay. It is important for you to know that none of the men in the videos are bisexual. In this portion of the study you will be asked to assess each subject’s sexual orientation (straight or gay) and your level of confidence with each assessment (probably or confidently). You will have four resulting selections combinations of which to choose: confidently straight, probably straight, probably gay, and confidently gay. Indicate your selection by circling only one number for each subject.

In addition to assessing the sexual orientation of each videotaped subject, you will be presented with the several different nonverbal elements that may have assisted you in your previous decision. Indicate your choice or choices by selecting the name or names of these particular elements. Some of your selections will be: body posture, body shape, clothing, eyes, facial expressions, hairstyle, grooming, head/arm movements, head movement, jewelry, and leg movement. Please note that while indication of one of these is ideal, many of them may be involved in this communication phenomenon. If there is another element that you believe is not available, please select the “other” option and explain in more detail in the space provided.

While the videos are playing, pay particular attention to the many nonverbal communication elements and factors that are available to you, and listen to your “gut instinct” when arriving at a decision. Only watch each video once, and take a brief moment (no longer than 10 seconds) in between each segment for you to indicate your selections. If you recognize one of the videotaped targets, you should proceed immediately to the next video segment and will not be prompted with the subsequent questions. Upon completion of the last video, you will be given further instructions.

For questions #1-8, please select ONLY one number or as many appropriate items based on the following scale after each video segment:

1. SUBJECT # _____________  (please complete according to the indication on the video segment)

   □ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

   My perception of this subject’s sexual orientation:
   can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidently Straight</td>
<td>Probably</td>
<td>Probably</td>
<td>Confidently</td>
<td></td>
</tr>
<tr>
<td>Straight</td>
<td>Gay</td>
<td>Gay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

<table>
<thead>
<tr>
<th>Body Posture</th>
<th>Body Shape</th>
<th>Clothing</th>
<th>Eyes</th>
<th>Facial Expression</th>
<th>Hairstyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooming</td>
<td>Hand/Arm Movement</td>
<td>Head Movement</td>
<td>Jewelry</td>
<td>Leg Movement</td>
<td></td>
</tr>
</tbody>
</table>

   Other (please explain): __________________________________________

   Other (please explain): __________________________________________

   Other (please explain): __________________________________________
2. SUBJECT # _____________ (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

- Body Posture
- Body Shape
- Clothing
- Eyes
- Facial Expression
- Hairstyle
- Grooming
- Hand/Arm Movement
- Head Movement
- Jewelry
- Leg Movement
- Other (please explain):

3. SUBJECT # _____________ (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

- Body Posture
- Body Shape
- Clothing
- Eyes
- Facial Expression
- Hairstyle
- Grooming
- Hand/Arm Movement
- Head Movement
- Jewelry
- Leg Movement
- Other (please explain):

Other (please explain):

Other (please explain):
4. SUBJECT # _____________  (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

- Body Posture
- Body Shape
- Clothing
- Eyes
- Facial Expression
- Hairstyle
- Grooming
- Hand/Arm Movement
- Head Movement
- Jewelry
- Leg Movement
- Other (please explain): ________________________________
- Other (please explain): ________________________________
- Other (please explain): ________________________________

5. SUBJECT # _____________  (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

- Body Posture
- Body Shape
- Clothing
- Eyes
- Facial Expression
- Hairstyle
- Grooming
- Hand/Arm Movement
- Head Movement
- Jewelry
- Leg Movement
- Other (please explain): ________________________________
- Other (please explain): ________________________________
- Other (please explain): ________________________________
6. SUBJECT # _____________ (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

<table>
<thead>
<tr>
<th>Body Posture</th>
<th>Body Shape</th>
<th>Clothing</th>
<th>Eyes</th>
<th>Facial Expression</th>
<th>Hairstyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooming</td>
<td>Hand/Arm Movement</td>
<td>Head Movement</td>
<td>Jewelry</td>
<td>Leg Movement</td>
<td></td>
</tr>
</tbody>
</table>

Other (please explain): __________________________________________________________

Other (please explain): __________________________________________________________

Other (please explain): __________________________________________________________

7. SUBJECT # _____________ (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

<table>
<thead>
<tr>
<th>Body Posture</th>
<th>Body Shape</th>
<th>Clothing</th>
<th>Eyes</th>
<th>Facial Expression</th>
<th>Hairstyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooming</td>
<td>Hand/Arm Movement</td>
<td>Head Movement</td>
<td>Jewelry</td>
<td>Leg Movement</td>
<td></td>
</tr>
</tbody>
</table>

Other (please explain): __________________________________________________________

Other (please explain): __________________________________________________________

Other (please explain): __________________________________________________________
8. SUBJECT # _____________ (please complete according to the indication on the video segment)

☐ I recognize this target (please place a √-mark in this field if you recognize or know this subject)

My perception of this subject’s sexual orientation can be best described as (circle ONLY one number):

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confidently Straight</td>
<td>Probably Straight</td>
<td>Probably Gay</td>
<td>Confidently Gay</td>
</tr>
</tbody>
</table>

I attribute my perception of this subject’s sexual orientation to the following factors (circle those that apply):

- Body Posture
- Body Shape
- Clothing
- Eyes
- Facial Expression
- Hairstyle
- Grooming
- Hand/Arm Movement
- Head Movement
- Jewelry
- Leg Movement

Other (please explain): ____________________________________________

Other (please explain): ____________________________________________

Other (please explain): ____________________________________________
APPENDIX C

TABLES
Table 1. Mean Scores and Standard Deviations for Measures of Sexual Orientation Identity Recognition as a Function of Sex and Sexual Orientation

<table>
<thead>
<tr>
<th>Participants</th>
<th>Overall Targets</th>
<th>Gay Targets</th>
<th>Straight Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay</td>
<td>14.22</td>
<td>1.04</td>
<td>129</td>
</tr>
<tr>
<td>Straight</td>
<td>14.17</td>
<td>.97</td>
<td>69</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay</td>
<td>14.06</td>
<td>1.05</td>
<td>219</td>
</tr>
<tr>
<td>Straight</td>
<td>14.06</td>
<td>1.02</td>
<td>172</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay</td>
<td>14.12</td>
<td>1.05</td>
<td>348</td>
</tr>
<tr>
<td>Straight</td>
<td>14.09</td>
<td>1.00</td>
<td>241</td>
</tr>
</tbody>
</table>

Note: Lower composite scores for straight targets indicate greater accuracy in judgment.
Table 2. Multivariate Analysis of Variance for Accurate Perception of Sexual Orientation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Targets</th>
<th>Gay Targets</th>
<th>Straight Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>F</td>
<td>η2</td>
</tr>
<tr>
<td>Sex (S)</td>
<td></td>
<td>1.38</td>
<td>.00</td>
</tr>
<tr>
<td>Sexual Orientation (SO)</td>
<td>1</td>
<td>.22</td>
<td>.00</td>
</tr>
<tr>
<td>S x SO</td>
<td>1</td>
<td>.07</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. *p < .05. ***p < .001.
Table 3. Intercorrelations for Nonverbal Behaviors and Accuracy of Perception

<table>
<thead>
<tr>
<th>Measures</th>
<th>Appearance</th>
<th>Face</th>
<th>Kinesics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Perception</td>
<td>.04</td>
<td>.08</td>
<td>.12*</td>
</tr>
<tr>
<td>Gaydar</td>
<td>.12**</td>
<td>.18**</td>
<td>.08</td>
</tr>
<tr>
<td>Straightdar</td>
<td>-.08</td>
<td>-.03</td>
<td>-.20**</td>
</tr>
</tbody>
</table>

Note. **. Correlation is significant at the .01 level.
* Correlation is significant at the .05 level