

Understanding Handshaking: The Result of Contextual, Interpersonal  
and Social Demands

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### Acknowledgements

“For what must be the three thousandth time, his right arm shoots out. ‘Dee-lighted!’ Unlike his predecessors, Theodore Roosevelt does not limply allow himself to be shaken. He seizes on the fingers of every guest, and wrings them with surprising power. ‘It’s a very full and very firm grip, ‘warns one newspaper, ‘that might bring a woman to her knees if she wore her rings on her right hand.’ The grip is accompanied by a discreet, but irresistible sideways pull, for the President, when he lets go, wishes to have his guest already well out of the way. Yet this lightning moment of contact is enough for him to transmit the full voltage of his charm.”

~Edmund Moore, The Rise of Theodore Roosevelt (p. xxix)

“Nothing in nature is isolated; nothing is without connection to the whole.”

~Goethe

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Abstract

The communicative functions of handshaking behavior were observed as a function of social context, interpersonal intimacy, and gender. Male and female participants were asked to imagine one of six levels of social context (Consolation, Congratulations, Hello, Farewell/Thank you, Agreement and Ritual) as they shook hands in a same or mixed-sex dyad that was characterized by one of four intimacy levels (Close friend, Acquaintance, New-stranger and Dislike). An analysis of handshake type and duration revealed that both measures of behavior varied with social context in that handshakes of consolation consistently elicited the longest handshakes and highest degrees of touching. This finding held for both sexes although gender differences were observed in handshaking behavior, as women produced overall longer average durations and more interpersonal touching; women preferred multiple pumping handshakes whereas men preferred single pumping handshakes. When shaking hands with opposite sex partners, both males and females accommodated to their partners' styles to use their partners' preferred handshake type. The results from this study establish empirical evidence that different types of handshakes have specific communicative functions. Handshakes vary along dimensions of type and duration to meet these communicative demands. The findings agree with previous nonverbal literature. Implications for future research studies and the relationship between the individual and social norms are discussed.

*Understanding Handshaking:*

*The Nonverbal Result of Contextual, Interpersonal, and Social Demands*

**Overview**

Imagine sitting down for a job interview with a powerful CEO whom you have never met. Now picture yourself as part of the receiving line at a relative's wedding. Although these two situations represent different social contexts and different interpersonal relationships, you engage in the same behavior with each person: a handshake. The interview has a formal, professional atmosphere while the wedding reception is festive and celebratory. You are presumably less familiar with your interviewer than your recently married relative. Despite the many differences that exist between these two situations, handshaking is somehow the appropriate interpersonal interaction for both. Handshaking is able to communicate information appropriately in different contexts.

Previous psychological research has shown that various nonverbal behaviors can reveal important interpersonal and contextual details that surround a social interaction. Presumably, these characteristics also can be expressed through handshaking behavior. Nonverbal behaviors reveal speakers' attitudes toward one another, their overall dispositions, the intimacy of their relationship, and differences in status and power between them. This area of research is known as paralinguistics and focuses on the various features and characteristics of an interaction that accompany speech and contribute to communication (Lackie, 1977). Paralinguistic research primarily studies vocal characteristics, such as voice quality, but includes other nonverbal gestures and behaviors that may precede language.

Paralinguistic and nonverbal messages play an important role in human communication. Individuals perceive these messages as more trustworthy and reliable than the actual words that are spoken in an interaction (Mehrabian, 1972). This may be due to the fact that individuals are less likely to consciously manipulate and have as much control over their paralinguistic and nonverbal behaviors as their language (Boltz, 2003). As a result, nonverbal behaviors provide more unbiased displays of the actor's motivations toward other people.

Nonverbal information becomes even more valuable in a social interaction when individuals are forming social judgments based on that interaction. In fact, when nonverbal and verbal information conflict with one another, individuals rely more on the nonverbal messages. As one example, in situations in which facial expression was inconsistent with a person's words, the facial expression prevailed and determined the impact of the total message (Mehrabian, 1972). All in all, sixty to sixty-five percent of social judgments are based on nonverbal cues (Knapp, 1992). Nonverbal interactions play a significant role in communicating information that is part of all social interactions.

The purpose of the present study is to focus on the information conveyed through one specific nonverbal behavior, namely, handshaking. Handshakes are very common gestures that exist ubiquitously in social interactions. Despite their common usage, there has been surprisingly little research conducted to investigate the ways that people use and perceive handshakes. Etiquette books provide tips on the most appropriate way to shake hands in order to create a positive first impression. For instance, there are tips on how far to extend the shaking hand, how tightly one should grip hands, and how long one should shake hands. These manuals indicate that people use handshakes to generate first

impressions of other individuals. Therefore, in order to be perceived as a dominant and powerful individual, a person ought to initiate handshakes; to be perceived as open and sincere, the same person should be the last to terminate the handshake (Brown, 2002). While these suggestions make intuitive sense, there is no empirical evidence to indicate that shaking hands in the advised manner actually communicates anything specific. This study aims to determine what messages handshakes convey and more specifically, whether different handshake characteristics communicate various social meanings. To investigate this, the present study will examine two dimensions of handshaking behavior, handshake type and duration, as handshakes are produced in diverse social and interpersonal contexts. The secondary goal of this experiment is to determine whether these styles of handshaking generalize to both genders and to examine if there are any sex differences in the expression of handshakes.

### **Methodological Strategies**

One of the main concerns in paralinguistic research is whether notions and rules governing nonverbal behaviors have validity, or if they merely reflect certain cultural or individual stereotypes. Many of these stereotypes exist and regulate the perception of nonverbal behaviors, but these beliefs are not necessarily accurate and may exist only as social lore. For instance, it is believed that one person can sense that another person is lying when the speaker begins to speak more slowly and in a higher pitch, speaks with greater hesitation, and averts his or her eyes (DePaulo, Stone & Lassiter, 1985b; Zuckerman, Koestner & Driver, 1981b). However, Friedman & Tucker (1990) showed that speakers do not exhibit these nonverbal displays when telling lies to others. Hence,

it is necessary to gather empirical data in order to either prove or disprove the cultural notions and expectations that govern nonverbal behavior.

There are several research strategies that can be used to investigate this topic. One approach is an observational study in which researchers watch public interactions from a distance to collect data on their variables of interest for coding analysis. Participants' behaviors occur effortlessly and naturally and because of this, observational studies provide a clear and naturalistic account of social behavior without the false reality of an experimental setting. This objectivity is also a limitation of the observational design, however. Because the observed behaviors occur spontaneously in real-life interactions, it is impossible to recreate them. Therefore, it is impossible to test the consistency of these behaviors over time, and variation in the data may prove to be the result of different personalities and idiosyncratic styles of communicating. Furthermore, observational studies do not allow researchers to make cause-and-effect inferences about the observed behaviors. These studies provide behavioral correlations but they do not determine how certain variables may systematically influence behavior. Another possible limitation of using an observational study is the fact that nonverbal behaviors (especially handshakes) occur very quickly, which creates great room for error in gathering data points, such as duration and frequency. There is also the possibility of experimenter bias during data collection. Experimenters may (unintentionally) imagine that they have observed behaviors that fit the goals of their experiment when, in fact, those behaviors did not actually occur. To circumvent this flaw, experimenters often train individuals who are not connected with the goals of the experiment to view and measure the behaviors of interest. Despite this precaution, observational studies are



severely limited in the extent to which they enable researchers to understand how certain factors influence, rather than correlate with, nonverbal behavioral expression.

Production and perception studies are incredibly useful in combating the limitations of observational studies. In a production study, individuals produce the nonverbal behaviors (i.e. handshakes) that they believe communicate the specific requested social and emotional messages (i.e. congratulations or empathy; friendship or dislike). A perception study gathers feedback on the meaning of nonverbal behaviors. It determines whether those behaviors which were produced to convey a given social impression are in fact perceived as such by an independent group of subjects. Production and perception studies act as converging operations when the stimuli from the former are used in the latter. This approach provides internal and construct validity and has the potential to disclose the truly held beliefs about nonverbal behaviors. There are many different types of nonverbal behaviors and each has the capability to communicate different types of messages. In order to unpack their latent meanings, it is necessary to present each behavior individually to elicit a clear understanding of the functions of each.

### **Different Types of Nonverbal Behaviors**

There are different types of nonverbal behaviors that can communicate social information. These types include qualities of the voice, body posture and orientation, proximity cues, eye behavior, movements and gestures of different parts of the body, and touching. There is a vast amount of literature on this topic; the research is unified by the common theme that displays of nonverbal behaviors vary according to context and the relationship between interactants.

**Prosodic Variables.** Prosodic variables are patterns in speech that can be useful in understanding human behavior. These vocal cues consist of pitch, loudness, and temporal variables such as tempo, rhythm, and response latencies. Changes in prosodic variables can provide cues about the personality and emotional characteristics of speakers.

One prosodic variable that is relatively consistent over time is the rate of speech, defined as the number of words or syllables uttered within a specified time period. Because speech rate remains fairly constant within individuals (Boltz, 2003), it can be useful in making inferences about the personality of a speaker. Individuals who speak with a fast tempo convey relatively greater levels of dominance (Zuckerman & Driver, 1989; Zuckerman et al. 1982), extraversion (Siegman, 1987; Weaver & Anderson, 1973), assertiveness (Rose & Tyron, 1979), and anxiety (Scherer, 1986) than slower-tempo speakers.

Changes from base rates of speech indicate a change in one's internal state. For instance, fewer pauses in speech are associated with greater speaker confidence and competence (Scherer, London, & Wolf, 1973), and the speaker is seen as more socially attractive (Izatt, 1997). When these infrequent pauses are of a short duration, however, they connote speaker anxiety. As they become more frequent and last for longer durations, the speech connotes speaker sadness or depression (Williams & Stevens, 1979). Knapp (1992) found that a fast speech tempo conveys anger, surprise, or happiness and speaking in a slow tempo signals boredom, disgust, or sadness. Differences in speech rate amplitudes convey pleasantness when they are moderate and anger when extreme. While these effects may occur subconsciously, speakers can

intentionally affect different types of emotion in their speech. For instance, changing one's tone of voice and emphasizing different words can convey sarcasm or empathy (Knapp, 1992). Therefore, it is possible to affect the semantic meaning and interpretation of words by altering their acoustic rates, rhythms, and other paralinguistic qualities.

A final temporal prosodic cue that humans rely on to form social judgments is response latency. Response latency is defined as the duration or delay between a posed question and its supplied response. Longer response latencies signal difficulty in message production (Burgoon, 1994), suggesting that the speaker's attention has shifted away from the external conversation to internal cognitive processes. Such mental diversions include distracting thoughts, concern over how to respond and how the response will be received, and temporary flickers of emotions (Knapp, 1992). To illustrate, production studies have shown response latencies are longer when the posed question is ambiguous (Siegman & Pope, 1972) or intimate in nature (Siegman & Reynolds, 1978). Additional examples of how shifts in cognition alter response latencies illustrate how response latencies can reflect the inner emotional state of speakers. Response latencies are shorter when speakers are more anxious (Siegman & Pope, 1965b; Fenz & Epstein 1962). Similarly, individuals who respond fastest are perceived as the most confident (Kimble & Seidel, 1991; Scherer, London & Wolf, 1973).

Any changes in the nonverbal, temporal qualities of speech are very important because they affect how listeners react to the words and the speaker. Boltz' research (2003) suggests that speaker confidence, certainty, and compliance are perceived along a continuum such that faster responses reveal higher levels of speaker confidence, certainty, and compliance. These speaker characteristics diminish as response latencies

increase. Honesty, however, is conveyed through a more limited and dichotomous range of response latencies than is confidence, certainty, or compliance. One possible reason for this is that honesty itself is a dichotomous quality: honesty either exists or it does not; there is the truth and there is a fabrication of the truth. If subjects respond too quickly, they appear to be overcompensating to assure their listeners of their verbal verity, but if their responses come later than expected, the speaker can be believed to be calculating his or her speech in order to carefully mask the truth. Hence, there is an optimal latency for conveying honesty and any violation of this duration communicates deception. The strong rules for conveying honesty through speech indicate that nonverbal aspects of speech, such as response latencies, serve to transmit specific social meanings that underlie social interactions.

These findings describing the role that response latencies and prosodic variables play in conveying important extra-linguistic information suggest that a very significant and dynamic interaction occurs between speakers and listeners in social interactions. Prosodic cues communicate information between individuals and this nonverbal information is relied heavily upon to make social judgments, even though the prosodic information may disagree with and be independent of the spoken words themselves. Timing is an essential nonverbal component of social interactions and it is therefore important and valuable to look at how variations in timing and temporal flow can provide meaning about the interaction itself.

**Eye Gaze.** Eye behavior is useful in communicating nonverbal messages in interpersonal interactions. In order to understand this, it is useful to look first at the different types of eye behavior that occur. Eye gaze refers to an individual's looking behavior as he or she

is simply observing another object or person. Mutual gaze refers to a situation in which two individuals look at each other but do not necessarily make eye contact (Knapp, 1992). Eye contact, on the other hand, is behavior defined by two individuals looking directly into one another's eyes (Malandro, Barker & Barker, 1989).

The notion of neuro-linguistic programming asserts that eye movement is a reflection of cognitive activity. Specific eye movements can signal underlying cognitive and physiological activity and are thus useful in communicating information about a person's internal moods and states (Knapp, 1992). As a result there are several interpersonal and social functions of eye gazing behavior. Some of these functions of eye gaze are similar to those served by changes in speech response latencies. For instance, a change in eye gaze indicates that some cognitive distracter has suspended the person's attention and consequent ability to communicate. The ways that people perceive these changes in eye behavior are consistent with the actual functions that the subconscious changes serve the individual. To illustrate, rates of eye blinking and eye movements increase when individuals suppress inner thoughts. Increases in blinking frequency are perceived as increases in anxiety. Moreover, eye muscles cannot be easily controlled or manipulated. This relatively weak control over eye movements as compared to other facial expressions, suggests that "the ocular response reveals not only the truth but also much about a person's individual personality structure [and] is an aid to social interaction." (Malandro, Barker & Barker, 1989) Thus, studying eye gaze behavior is very useful for understanding the specific interactions and types of communication that can occur between individuals at the nonverbal level.

As defined above, eye contact is more likely to initiate other forms of communication with a social interactant than eye gaze or mutual eye gaze because eye contact is more direct and is shared between the two individuals. A result of this is that,

“eye contact determines the type of interaction that will take place and how the interaction will develop. It shows a willingness on your part to admit interest in others and allows others to gain information about you.” (Malandro, Barker & Barker, 1989)

Eye contact conveys a readiness to communicate with and respond to others. Cary (1978) showed that mutual eye gazing is used to regulate communication between people in that when one wishes to prevent or end a social interaction, he or she will break eye contact.

The amount of eye gazing between individuals can lead others to make judgments about the relative levels of social status between them. Eye behavior can convey dominance and levels of persuasiveness, aggression, credibility, affiliation, and attraction (Knapp, 1992). As eye contact indicates a willingness to engage others in conversation, greater amounts of held eye contact indicate that the gazer has a more extraverted and assertive personality (Knapp, 1992; Kleck & Nuessele, 1968).

Knapp (1992) found that individuals intentionally and unintentionally alter their gazing behavior when communicating various types of interpersonal messages. To assert and convey dominance, individuals initiate eye gazing and contact more frequently. Conversely, submissive individuals avert their eyes and gazes often. The latter also break eye contact sooner than do people with more dominant personalities. In addition, the amount of eye gazing varies with the status of the addressee, or person being addressed. For individuals with very high social status, the amount of gazing and mutual gazing is

moderate. These levels are maximized when the addressee has a moderately high status and are minimal for very low status addressees (Hearn, 1957; Efran, 1968; Mehrabian, 1972). Patterns of initiating and terminating eye contact can therefore lend themselves to the formation of interpersonal judgments.

The patterns of eye gazing behavior alter and reflect emotional relationships between interactants, and the manner in which one engages in eye behavior can lead others to form judgments of that person's personality. In a perception study by Ekman and Friesen (1975), participants viewed headshot photographs of individuals and were able to perceive distinct emotions through different eye behaviors. These emotions included surprise, fear, disgust, anger, happiness, and sadness.<sup>1</sup>

Gazing can occur when people seek feedback on how other react to them. When people were told that their partner looked at them less than what is considered "normal," the partners were rated as "less attentive" regardless of whether their gazing was inadequate or not (Knapp, 1992). If individuals are unfriendly with one another they engage in less gazing behavior and in turn, low amounts of gaze are interpreted negatively. Kleck and Nuessle (1968) showed participants a video in which actors gazed at their companions for either fifteen or eighty percent of the video clip. Participants labeled the fifteen-percent lookers as more negative (cold, pessimistic, cautious, anxious, defensive, immature, submissive, and indifferent) than those who gazed for longer amounts of time. On the other hand, too much gazing also can be evaluated as negative.

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<sup>1</sup> Specifically, raising the upper eyelids so that the whites of the eye are visible below and above the iris conveys surprise. Fear resembles surprise except the lower lid is constricted, concealing some of the white. Disgust is shown when lines below the lower and upper lids push upward. When vertical lines between the eyebrows are apparent and the upper and lower lids are made tense in conjunction with a hard (fixed) stare, individuals express anger. Happiness has wrinkles under the lower eyelid, and finally sadness is shown when the inner corners or eyebrows are drawn upward.

Morris (1967) demonstrated that “a gaze of longer than ten seconds is likely to induce irritation if not outright discomfort in many situations, conveying hostility or aggression” (Knapp, 1992). There is an apparent level of gazing that is socially pleasing and appropriate; any level below or beyond this norm generates unease in those who receive or observe the gaze.

Based on the Kleck and Nuessle’s findings (1968), this level of appropriate gazing appears to exist at a level greater than fifteen percent and less than eighty percent of the interaction’s sum duration. This information leaves a large window for trying to determine what amount of eye gaze is socially acceptable or desirable. This window is too large to try and measure down to a realistic and reliable number. Therefore, it is more worthwhile to generalize the research on eye gazing behavior to state that individuals can form negative or positive impressions of others based on their nonverbal gestures. These impressions can develop independent of the other verbal or nonverbal components of the interaction. The general approach to interpreting eye gaze can be furthered reduced to the statement that gazes and mutual gazes signal levels of interpersonal involvement between two interactants. Eye gaze behavior is thus a useful tool in comprehending interpersonal communication.

**Proxemics.** Proximity, defined as the distance between one person and his or her interactant(s), is the strongest predictor of perceived dominance in social interactions. According to Burgoon (1984), “dominant people are allowed to violate conversational distance norms, [so that] both close and far distances are associated with more dominance than are intermediate distances.” Therefore, the individual who controls the distance



between him or herself and his or her social partner is evaluated as more dominant than the partner.

While the establishment of proximity conveys dominance, specific levels of proximity can be interpreted for their emotional meaning. For instance, the closer two individuals stand to one another, the more intimate their relationship is judged to be; as they stand further apart their relationship is evaluated as less intimate (Knapp, 1992). Proximity cues are helpful in deciphering individual interpersonal interactions. Knapp (1992) described this through his discussion of proximity behaviors between romantic couples:

“Ironically, intimates in established romantic relationships may exhibit quantitatively less nonverbal behavior typically associated with affection and intimacy than they did in forming the relationship...gradually giving way to performances unique to the couple.” (p.376)

This passage suggests that specific norms governing behaviors develop within a given dyad after repeated interactions. These norms come to govern their exchanges with one another. When members of a dyad are unfamiliar with one another or when the nature of their interaction is unknown, the interactants are more likely to adopt social norms or scripts—especially those that are gender-based—to guide their interactions. These social standards help the interactants navigate around one another for the duration and purposes of that interaction.

In conclusion, proximity clues are helping in illustrating the nature of a relationship between two interactants, but only at the time of their interaction. This supports the underlying notion in nonverbal behavioral research that levels of dominance

and intimacy between two individuals affect their style of communication, as well as the fact that specific nonverbal behaviors are linked with very specific social functions.

**Touching.** Touching is considered the most powerful and influential mode of nonverbal communication during times when individuals are forming interpersonal judgments.

Touching breaks through physical boundaries and disturbs personal space. Touch produces high levels of arousal that create powerful associations and evaluations of the toucher (Knapp, 1992). Touch is more invasive than other nonverbal behaviors; it is direct, distinctly perceptible, and demands a response. Vocal patterns, eye gazing, and physical proximity merely forward paralinguistic signals between social partners.

Touching demands either a reciprocation of the touch (as with a hug or a handshake), or a full rejection of it by recoiling from the touch. As individuals communicate nonverbally, the degree to which they touch or avoid touching one another reveals the intimacy between them in their relationship.

Thayer (1986) stated that touch is critical to the regulation of intimacy and emotion within relationships. Touch can convey encouragement, empathy and hostility, and can be used to persuade. With these capabilities, touch allows individuals to create positive or negative relations with their social partners for a given interaction. Touch communicates professionalism, sociability, politeness, affection, friendship, hostility, intimacy, sexual arousal, compliance, greetings, and departures (Heslin, 1974; Jones & Yarbrough, 1985). People use touch to establish similarity between themselves and another person (Knapp, 1992), which can ultimately lead to greater compliance (Pattison, Powell & Lenihan, 1986).

Touching behavior provides clues as to how individuals feel about one another in their given social setting. Individuals who touch others are perceived as more emotionally composed and dominant than those who do not touch at all (Burgoon, 1991; Burgoon et al. 1992). For any given interaction, touching connotes a higher level of emotional content for that situation (Heslin & Boss, 1980).

Face-touching and hand holding are touch behaviors that are usually evaluated as intimate behaviors. In this state they convey affection, trust, and similarity between interactants (Burgoon, 1992). However, not all touching behaviors convey intimacy. In a single study in which hand holding was evaluated as a form of intimate touch, hand-clasping and handshakes were perceived as cold, formal types of touch (Burgoon, 1992). Therefore, specific types of touch in one area of the body—namely, the hand—can be interpreted in several ways.

The messages conveyed by touch, such as empathy, assurance and dominance can take on stronger associations when they occur in certain contexts. For instance, touching another person on the shoulder generally increases the emotional warmth of the interaction (Major & Heslin, 1982). When this shoulder-touching occurs in a work or office setting it is perceived not as affectionate but as heavy-handed and dominant (Lee & Guerrero, 2001). In Lee and Guerrero's experiment participants viewed photographs of coworkers interacting in an office setting. Their ratings of nonverbal interactions revealed that common and ordinary touches (hand on the forearm, face, shoulder and waist), showed the strongest perceived displays of dominance in this setting. This is due to an interaction between the nature of touch behavior and the nature of the office setting.

Research has shown that individuals who touch others are perceived as more dominant than those who do not initiate touch (Major, Schmidlin & Williams, 1990). Secondly, office settings are environments in which social status and levels of dominance are clearly and overtly defined. While in an office setting, individuals are more attune to cues of social dominance than they are in non-office settings, in part because these symbols are very obvious--it is does not require much time or effort to discern who are the powerful members of an office team—simply look for people who work in large corner offices as opposed to small, crowded cubicles. Another reason for this is because the different levels of power within an office designate and define the roles and responsibilities that workers take on. The resultant interaction between context and dominance conveyed by touch causes ordinary forms of touching to be perceived as overtly dominant.

Not all office spaces cause individuals to perceive touching behavior negatively, however, which highlights an important point about the perception of nonverbal behavior and its relationship to social context. Many medical professionals, including psychotherapists, doctors and massage therapists, incorporate intentional touching into their patient treatment plans in order to establish familiarity and comfort (Tommasini, 1990). In these situations, patients do not react negatively to the touches. Therefore, they must have some expectation regarding the nature and motivation of the touch that causes it to be perceived as positive. Thus, ideas about how a situation and individuals should treat one another govern how touching behavior ultimately is perceived. It is clear that the perception of nonverbal cues is highly dependent on the nature of the social

situation that surrounds the nonverbal behavior. One's immediate context helps to guide his or her perceptions of social interactions.

### **Summary**

Interpersonal interactions can be examined and understood as clusters of nonverbal behavioral cues that provide information about the nature of the interactants involved in them. The nonverbal cues that provide this information include prosodic variables, eye gazing behavior, proximity cues, and touching patterns. Some of these behaviors, such as shifts in speech tempo and intonation, as well as changes in eye movements, can occur subconsciously. Because individuals do not control these displays, studying them can be especially helpful in understanding the internal states and motivations of social interactants. Other nonverbal displays of behavior that are produced consciously and deliberately (e.g. eye gazing patterns, proxemics, and touch) also provide valuable clues to understanding the ways that individuals orient themselves to one another and social norms through social interactions. The previous research on nonverbal behaviors that is presented here suggests a set of beliefs exist and are accepted throughout society that govern the interpretation and production of nonverbal behavioral displays. These norms or rules apply to those behaviors that are commonly displayed by many individuals, as well as the idiosyncratic forms of these behaviors that individuals produce.

Speaker disposition, confidence and deception, as well as social status are conveyed through speech response latencies and speech tempo, respectively. Social status can also be conveyed through eye gazing behavior, as initiating and maintaining

eye gaze conveys relative dominance. Dominance is also shown when individuals initiate touch and dictate proximity measures between oneself and others.

Touching is a very powerful nonverbal component of social interaction as it conveys attraction between individuals and similarity among them. With these qualities, touching can be used to persuade and elicit compliance. Similarly, eye gazes signal attention and an interest in communicating. Diverted gazes, on the other hand, point to diminished interest in the interaction. The extent to which people physically engage one another sheds light on the intimacy of their interaction. To this end, particular attention is paid to proximity and touching behaviors.

To complicate the present understanding of nonverbal behaviors, there is an entire literature devoted to how the employment and perception of nonverbal behaviors can change as a function of gender. On average, women employ nonverbal styles that convey more emotion than men. When interacting with men, women communicate lower levels of social dominance through fewer initiations of touch (Lee & Guerrero, 2001), averting eye gazes more often than when they interact with women (Henley, 1977), and by allowing men to dictate interpersonal proxemics to establish dominance (Knapp, 1992).

Even when men and women display these nonverbal behaviors identically, however, the displays are not interpreted equally.

“Where gender differences exist, they may take more the form of intensifying or deintensifying a preexisting message, with males’ behaviors being given more of a dominance slant and females’ behaviors given more of an intimacy slant, in keeping with gender stereotypes.” (Burgoon & Dillman, 1984)

For instance, when a woman establishes proximity between herself and a social partner (a display of social dominance), both male and female individuals evaluate this

behavior as sexually-motivated instead of a mere sign of merely assertion and dominance. Along the same line, when women displayed longer and more frequent gaze durations, they were rated as less dominant than men who displayed these same behaviors! (Burgoon et al., 1986). Dominance gestures do not hold the same for women as they do for men, indicating that society provides a set of expectations for social contexts (as demonstrated in the touching literature) and gender roles. Individuals make use of these expectations when interacting with others as well as evaluating the behaviors of others. The expectations that govern nonverbal behavioral displays aid individuals in understanding their social environments.

Lee & Guerrero's (2001) findings support this culture-based, macrocosmic understanding of human behavior on a microcosmic, situational level. These researchers found that certain acts of touch, such as brushing against another person's arm and shoulder, can be perceived as relatively benign or positive in one situation and then as threatening and domineering in another. Within certain contexts, strict rules can develop that govern displays of behavior (Heslin, 2001). The same can be observed within interpersonal relationships. Over time, behavioral expectations develop from precedents performed earlier. These findings provide support for the Social Meaning Model of nonverbal behavior, which states that within a culture there exists some collective understanding and a set of rules that govern behaviors (Burgoon & Le Poire, 1999). Under this model, nonverbal behaviors carry consistently recognizable meanings within a given society, leaving room for individual gestures, such as head nods and waves, to develop based on the consistent ways in which they were interpreted. Thus, gestures can

communicate information that is useful for understanding relationships on interpersonal, contextual, and social levels.

### **Greeting Behavior**

Greetings are gestures made between individuals. They call attention to the gesture's initiator who, by producing the gesture, anticipates a response from his or her companion. Kendon and Ferber (1967) saw that greetings gestures serve

“an important function in the management of relations between people. By way of greeting, individuals are made to feel a part of a social event, may confirm or continue their relationships, and signal relative social status, familiarity with others, degree of liking, and the likely nature of subsequent conversation.”  
(pg. 262)

Like other nonverbal behaviors, nonverbal greetings provide information regarding the nature of participants' orientation to each other (Goffman, 1963).

Nonverbal behavior is very closely related to gestures of greeting. Changes in context or interpersonal relationship between greeters are reflected in nonverbal patterns. For instance, when an individual greets a stranger or someone who he or she does not know well, he or she will use brief glances (i.e. change in eye behavior) to evaluate the other person's willingness to interact (i.e. degree of mutual eye gaze). Conversation is much more likely to occur if a mutual glance is exchanged immediately when the interactants become aware of one another than if allow time to elapse (Cary, 1978). Hence, timing is a crucial factor in evaluating others in social situations. To further illustrate this, Krivonos and Knapp (1975) videotaped the greeting activity in a laboratory setting between pairs of college males who had either been previously acquainted with one another or were complete strangers. Head nods and mutual gazing were the most



frequent nonverbal displays in both conditions of familiarity. However, previously-acquainted pairs were more likely to smile and initiate a conversation than either individual in the unacquainted condition. Therefore, the levels of intimacy between individuals can lead to different displays of greeting behavior.

Greenbaum & Rosenfeld (1980) observed naturally-occurring greeting behavior between airplane travelers and their greeters at airports and established that gender differences exist in production of greeting behavior. Male-male dyads were significantly more likely to engage in brief handshakes than any other gender dyad; handshakes occurred in seventy-eight percent of male-male encounters versus their presence in only seven percent of other pairs. Cross-sexed or female-female dyads displayed relatively longer contacts. Their greetings also included twice as many permutations in greeting behavior such as mutual lip-kissing, mutual-face contacts, embraces, and/or hand-to-upper body touches, than solely male groups. These results indicate that the sex of one's social partner plays a role in the types of greeting behavior that individuals display toward them.

In addition to the significant effect of gender pairing, this airport greeting study revealed that handshaking can occur as a distinct social event. This study shows that handshaking often occurs by itself as a distinct social interaction or event. The male-male dyads were very likely to engage in only handshakes with one another when greeting. Handshakes therefore hold a distinct, interpersonal and communicative function.

## **Handshaking**

Handshaking is a nonverbal act of touch and greeting that occurs between two individuals. There are therefore many social and interpersonal messages that can be discerned by observing handshake interactions. Handshakes serve a communicative function and can supplant or replace verbal exchanges, such as “hello” and “I agree.” As such, handshakes are classified as gestures.

Deborah Schiffrin (1951) developed an argument that handshakes serve the necessary and important social function of regulating and maintaining human interactions. Schiffrin classified handshake gestures as “access rituals,” or acts that request contact with the handshakee while simultaneously offering contact with the self. Handshakes as access rituals and gestures are therefore communicative in function. This interpersonal function also serves the larger social purpose of introducing and maintaining social relationships. This argument can be supported by the behaviors observed in Krivonos and Knapp’s previously described greeting behavior study. Here, participants had no expectations of the other men whom they met in the lab setting. They did not anticipate further contact or communication with them and with this lack of (present or future) relationship, a handshake was not necessary for communication. Here, participants were able to communicate sufficiently through head nods and eye gazing. In this sense, handshakes are the gestural result of situations when individuals have messages specific to their companions that they would like to convey.

Within this framework of handshakes as mutually-communicative gestures, Schiffrin (1951) claims there are three main handshake types: openings, closures, and collapse. Opening handshakes are purely future-oriented. They establish that some

contact or shared access will occur after the handshake. Openings can be greetings between friends and introductions between strangers. Closures indicate that the shakers have shared a period of heightened access and that it may be renewed at a future time. Collapse handshakes “collapse,” or assemble the greeting, introduction and farewell events into one occasion. There is no actual relationship between the shakers. As a result, collapses are brief and exist only in the moment in which they fill the greeting, introduction and farewell events. A good example of collapse “handwork” is a politician shaking hands with countless numbers of potential voters at a political campaign rally. With each handshake the politician is trying to win over a vote. The handshake is an attempt to establish familiarity with touch; contact yields both physical and psychological closeness (Knapp, 1994). Schiffrin’s work is useful in understanding the necessity for handshakes. It is with this understanding the present study moves forward to examine the different types of information that can be communicated through handshaking.

Chaplin, Phillips, Brown, Clanton, & Stein (2000) gathered empirical evidence showing certain characteristics of handshakes provide cues for evaluating the personality and social status of handshakers. These experimenters trained four undergraduates as handshake coders to measure and record eight handshake characteristics as they welcomed participants to the lab setting. These eight characteristics include completeness of grip, temperature, dryness, strength, duration, vigor, texture, and eye contact. These experimenters greeted each participant separately by shaking hands and handing them a personality questionnaire. (The experimenters had been trained to present the participants a neutral handshake<sup>2</sup> so that the collected data came solely from

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<sup>2</sup> The authors operationally defined as a hand extended straight out from the waist with the palm facing to the left and thumb raised at a forty-five degree angle; on contact with a subject’s hand the handshakers

the participants' manner of shaking.) Using research on handshaking etiquette and business protocol that suggested handshakes have a substantial impact on how individuals evaluate others (Boyles, 1997), Chaplin et al. (2000) created a First Impression Composite (agreeableness, openness, extraversion, emotional stability, conscientiousness, openness, and positive affect) to explore this relationship. The FIC showed a .56 correlation with handshake firmness and within this relationship were several significant effects. A main effect of participant gender indicated males have stronger handshakes than females. There was also a main effect for experimenter gender, for which male handshake coders generated more positive impressions of handshakers than the female coders. Surprisingly there was no interaction between participant gender and coder gender. A possible explanation for this is that handshaking has traditionally been an exclusively male behavior (Astroem, 1994) and that the greater exposure men have generating and receiving handshakes makes them more comfortable with handshakes, leading them to evaluate handshakes positively solely on the basis of their use of handshaking.

Further analysis showed that a strong handshake grip was considered valuable for both men and women. Women with firm handshakes rated higher on the FIC and openness personality measures. This suggests that openness is a quality that helps women create positive first impressions. This does not appear to hold true for men: more open men received weaker handshake ratings and FIC scores. It can be deduced that less open men produce stronger handshakes and higher FIC scores. Therefore, a single personality trait can be revealed along handshake firmness. The effect of this

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closed their hand around the other but waited for the other person to initiate strength of grip and the up and downward shaking, then released their grip only when the other began to relax theirs or to show signs of wanting to end the handshake.

personality measure, namely openness, on handshake firmness has opposite effects for male handshakers and female handshakers. Strong male handshakes received lower openness scores and strong female handshakes higher openness scores. Overall, strong handshakes were evaluated positively and created superior first impressions of the individuals who exhibited them. The fact that a single behavior (a strong handshake) correlated with gender-based differences in personality traits and first impressions indicates that there separate rules in American society that govern social behavior for and what traits are valued in men and women.

Astroem's research (1994) found correlations between handshake strength and other personality measures in addition to openness. In this experiment the researcher filmed handshake encounters between trained handshake coders<sup>3</sup> and participants. By administering a number of personality questionnaires, Astroem discovered strong grips predict aggressive, dominant, exhibitionistic, and less socially mature behaviors. These findings were independent of participants' or handshake-coder gender. Between genders, stronger hands signal less sociability in men and higher levels of dominance in women. Within-gender variability can be due to age differences: younger men with strong handshakes scored high on measures of neurotic self-assertiveness whereas older men with strong handshakes scored low on this measure. Older women with soft and loose handshakes were judged as more highly sociable than older women with firm handshakes; young women with loose handshakes had high scores on passive

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<sup>3</sup> The handshake coder for this experiment gathered handshaking information by remaining immobile and stretching out his shaking hand to the participants, "inviting the subject to come forward to shake it with the thumb pointed upward from the other fingers and with a very mobile arm, giving the subject an opportunity to grip the hand in the he liked. The research produced a pressure of the hand grip similar to that of the subject and broke the contact as soon as he felt that the subject did so." This allowed the participants to shake hands in the style they were accustomed to; the coder followed suit and recorded anatomical consistency, temperature, dryness, strength, presence of a smile, duration, vigor, and pleasantness of the hand.

dependency. Perhaps these age-related findings are due to carry-over effects from social expectancies and stereotypes regarding age-appropriate behaviors. This research shows that expectancies and social rules control perceptions of handshaking behavior.

In order to understand which personality variables can be conveyed through handshaking Astroem (1993) conducted a handshaking study that examined handshake characteristics in relation to personality measures gathered from a clinical population. Two psychologists were trained to present neutral handshakes (identical to the neutral handshakes used in Astroem's 1994 study) to patients and to measure the following: handshake anatomical consistency, temperature, dryness, and strength of grip. Astroem was interested in investigating two specific personality traits that are relevant to social interaction (social introversion and psychological masculinity/femininity scores) and their effects on handshaking characteristics. Astroem observed that "men seem to exhibit more pronounced personality traits such as independence, dominance, and extraversion while women show more intensely nurturance, sociability, and affiliation," and was interested in examining how affected participant behavioral.

Astroem's participants were recruited from a psychiatric ward in Sweden within three days of their admission into the hospital. The two trained psychologists/coders introduced themselves to the participants with a neutral handshake, inviting the participants to complete a personality inventory. Immediately following the handshake interactions they rated the shakes on the four measures that were previously mentioned. Strength of grip correlated with higher levels of psychosis. This was perhaps due to efforts from the participants to assert control over the experimenters. Higher levels of

psychological deviation correlated with weaker grips across both genders, revealing that psychological detachment can lead to less engaged physical effort and social activity.

Variations in hand temperature provided information on personality evaluations: dryness was associated with introversion as well as psychological masculinity-femininity. Overall, the data showed women's handshaking data showed stronger correlations with personality variables than men's scores across the same measures.

### **Purpose of Present Study**

To summarize, past handshaking research has observed individual differences in handshaking displays as they relate to personality measures. These studies focused primarily on how handshake behavior may reveal certain personality traits or psychopathologies in individuals. In addition, the main dependent measure has been quality of handshakes, such as firmness, dryness of skin, etc. Although useful, there are several other, perhaps more fundamental issues that have not been investigated.

First, there are other dimensions of handshakes that have not been explored, such as type of handshake and handshake duration. In the brief literature that exists for handshaking behavior, Brown (2002) cited several different types of handshakes, yet provided no reason for their existence or ways in which they are used. (Please see Appendix A for an illustration of these noted handshake types.) Schiffrin's (1951) research classified handshakes according to their functionality as access rituals, but she did not take into account that different types of handshakes may exist to support those steady functions. It may be the case that different handshakes are used or preferred in certain social scenarios, depending on the events surrounding the handshake, the

relationship between the handshakers, and the message that each person is trying to communicate. Further, it may be that certain types of handshaking are considered more appropriate for different subpopulations. For instance, different manners of shaking hands may be viewed as more masculine or feminine than others and thus, certain handshakes may be considered more appropriate for men and for women.

Another dimension on which handshakes may vary is that of duration. Previous research on nonverbal behaviors has indicated that there is an important temporal component to nonverbal behaviors. For instance, honesty is conveyed in speech via an optimal response latency (Boltz, 2002); any digression from this optimal response connotes speaker dishonesty. In addition, Kleck and Nuessle (1968) found that there is an appropriate level of eye gaze that is expected in social interactions. When individuals deviate from this level, the receivers of eye gaze may question the motivations of their social partner. Specifically, lower levels of eye gaze signal that the partner is less interested in interacting, whereas excessive amounts of eye gazing connote an unexpected level of intimacy and can cause discomfort. The durations of nonverbal behaviors can thus disclose levels of intimacy as they exist between social interactant.

It seems reasonable to assume that the type of handshake and handshake duration can vary as a function of factors other than personality measures. The first of these factors is social context. The literature on touching behavior demonstrated that the arena in which touching occurs affects the way in which the touch is perceived (Lee & Guerrero, 2001). The level of intimacy between individuals, which can be thought of as the degree of comfort and familiarity they have with one another, can certainly influence the amount of touching that individuals initiate and exchange with each other. For



instance, Heslin & Boss (1980) found that individuals greet one another differently as a function of the intimacy level between them; those in romantic relationship are more likely to engage in hugs and various forms of touching, while acquaintances are likely to only exchange handshakes. This same study found that gender relationships influence the types of greetings that individuals engage in. For instance, mixed-sex dyads are likely to engage in several different types of touch during greetings (e.g. shoulder touching, embracing and hand-holding), whereas single-sex dyads and male-male dyads in particular, display less diverse greeting interactions. In addition, previous literature on other forms of nonverbal behaviors show that men and women display different tendencies, such that women exhibit more touching behavior overall while men seek to initiate touch more often than do women.

It is of great interest to the researchers of the present study to understand how different styles and types of handshaking can be employed to convey distinct interpersonal messages. This study was designed to investigate what information is conveyed through handshakes along the dimensions of handshake type and duration. Participants were paired with same and opposite sex partners and asked to produce handshakes that felt appropriate for different social contexts and interpersonal relationships they had with their partners. Participants were asked to imagine various social settings, including consolation, congratulations, greeting, farewell and thank you, agreement, and ritual, as well as different interpersonal relationships (that varied in level of intimacy) with their handshaking partners. Participants were also asked to imagine being close friends with, acquaintances with, strangers with, or disliking their partners

within each of the social contexts, and asked to produce handshakes that felt most appropriate for that given relationship and social setting.

The researchers of this experiment hypothesize that different styles of handshakes, as they vary along dimensions of type and duration, will result as the levels of social context and intimacy vary. This hypothesis originates in the fact that handshakes are intentional gestures formed from the motivations of handshake initiators. Previous nonverbal research has shown that gestures are susceptible to and respond to changes within the initiator of the behavior as well as in the surrounding social setting. By understanding handshakes as nonverbal touch gestures of greeting, there is room to investigate their communicative capabilities as well as how these gestures change according to the social scenario in which they occur.

Another purpose of this study is to further investigate the relationship between gender and the social rules that govern nonverbal behavioral exchanges. Until recent years, handshaking has been a traditionally male behavior. It will be interesting to investigate whether women and men shake hands differently on the basis of handshaking experience. Gender-related trends in nonverbal behavioral displays exist in American society: women touch for longer durations than do men and men initiate more touches than women (Heslin & Boss, 1980; Knapp, 1992). This experiment will further investigate the role that gender and gender-pairing plays in determining one's social behaviors.

This research will focus on interpersonal communication via the handshake within single and mixed sex dyads. Analysis of handshake type and duration by handshakers' intimacy and gender relationships with one another across different social contexts will

provide an understanding of the role of handshaking behavior and nonverbal communication on both interpersonal and social levels.

### **Methods**

**Design.** The design is a 2 x 6 x 2 x 4 x 2 mixed factorial. Male and female participants were asked to produce handshakes in six different social contexts (Consolation, Congratulations, Hello, Farewell/Thank you, Agreement, Ritual), with same-sex or different-sex partners. For each handshaking interaction, participants were asked to imagine one of four intimacy levels to characterize the relationship with their handshaking partner (Close, Acquaintance, New, Dislike). The intimacy level variable varied across two counterbalancing sets as a between-subjects variable.

**Participants.** The participants were sixteen students (8 male and 8 female) who were recruited from the undergraduate population at Haverford College. Participants were offered either course credit or entrance into a cash lottery as incentives to participate.

**Stimulus and Materials.** The stimulus materials of this experiment consisted of verbal passages read to handshaking dyads immediately prior before they initiated a handshake. These passages described a given social context and level of intimacy that the participants were asked to imagine for a given trial.

The context manipulation consisted of six levels. Their definitions as read to the participants were as follows:

- Consolation: “Your partner has just lost someone s/he loved and is feeling down. Offer a handshake in consolation.”
- Congratulations: “You are at your handshaking partner’s college graduation. Offer him/her a handshake of congratulations.”

- Hello: “You have just arrived at a meeting and everyone is greeting one another.”
- Farewell/Thank You: “You and your partner have just finished a conversation and you are shaking hands to say goodbye or to thank him/her.”
- Agreement: “You and your partner have just made an agreement, shake hands to seal the deal.”
- Ritual: “You are shaking hands with your partner prior to an athletic competition, for which you are on opposite sides.”

Intimacy level was defined as the type of interpersonal relationship the handshake initiator had with his or her handshaking partner. This variable consisted of four levels. After the experimenters read the social contexts to the participants, they stated which intimacy level characterized the handshaking scenario. The following is a list of the four levels of intimacy as they were presented to the participants:

- Close: “You have been close friends with your partner for two years.”
- Acquaintance: “Your partner is an acquaintance who you’ve met a few times before, but do not know very well.”
- New: “You and your partner are strangers, meeting for the first time.”
- Dislike: “You know your partner fairly well, but don’t like him/her at all.”

Gender of the initiator as well as the level of gender pairing (same-sex or mixed-sex) varied for dyads across the handshaking trials. In order to produce all possible handshaking scenarios within each handshaking group, the experimenters created two counterbalanced sets into which they placed participants at random. If each participant had produced all possible handshakes, with consideration of the gender relationship between partners, each participant would have produced ninety-six handshakes. To reduce this number and the amount of time required to complete the experiment, it was necessary to create the two counterbalanced sets that controlled for level of intimacy and

gender pairing across social context. Please see the table below to see how context, intimacy, and gender relationships varied across sets.

**Table 1.** Itemization of Context, Intimacy Level, Gender and Gender Pairing Across Sets 1 and 2.

	<b>Set 1</b>	<b>Set 2</b>	<b>Set 1</b>	<b>Set 2</b>
	<u>Male 1</u>	<u>Male 2</u>	<u>Female 1</u>	<u>Female 2</u>
<u>Console</u>				
Close	same	mixed	same	mixed
Acquaintance	mixed	same	mixed	same
New	same	mixed	same	mixed
Dislike	mixed	same	mixed	same
<u>Congratulations</u>				
Close	mixed	same	mixed	same
Acquaintance	same	mixed	same	mixed
New	mixed	same	mixed	same
Dislike	same	mixed	same	mixed
<u>Hello</u>				
Close	same	mixed	same	mixed
Acquaintance	mixed	same	mixed	same
New	same	mixed	same	mixed
Dislike	mixed	same	mixed	same
<u>Farewell</u>				
Close	mixed	same	mixed	same
Acquaintance	same	mixed	same	mixed
New	mixed	same	mixed	same
Dislike	same	mixed	same	mixed
<u>Agreement</u>				
Close	same	mixed	same	mixed
Acquaintance	mixed	same	mixed	same
New	same	mixed	same	mixed
Dislike	mixed	same	mixed	same
<u>Ritual</u>				
Close	mixed	same	mixed	same
Acquaintance	same	mixed	same	mixed
New	mixed	same	mixed	same
Dislike	same	mixed	same	mixed

Within these sets, each participant initiated twenty-four handshakes. Each participant shook hands all six social contexts, although only in two of the four intimacy levels within each context. To measure the main effect of intimacy on handshaking behavior across the counterbalanced sets, it was necessary to collapse the four intimacy levels into

two new categories, namely high degree of intimacy and low degree of intimacy.

Relationships with a high degree of intimacy (i.e. close and dislike) were defined as those in which participants were familiar with and knew one another well. Conversely, the low degree of intimacy condition (acquaintance and new) included situations in which participants were not especially connected or familiar with one another. Please see below to view how the context, intimacy level and gender pairing factors were broken down by degree of intimacy across counterbalanced sets.

**Table 2.** Arrangement of Context, Degree of Intimacy, Gender and Gender Pairing

Across Sets 1 and 2.

**Set 1: Context-Degree of Intimacy-Gender Pairing**  
**Intimacy Level**

Console-High-Same	Console-High-Mixed	Console-Low-Same	Console-Low-Mixed
Close	Dislike	New	Acquaintance
Congrats-High-Same	Congrats-High-Mixed	Congrats-Low-Same	Congrats-Low-Mixed
Dislike	Close	Acquaintance	New
Hello--High-Same	Hello-High-Mixed	Hello-Low-Same	Hello-Low-Mixed
Close	Dislike	New	Acquaintance
Farewell/Thank-High-Same	Farewell/Thank-High-Mixed	Farewell/Thank-Low-Same	Farewell/Thank-Low-Mixed
Dislike	Close	Acquaintance	New
Agree-High-Same	Agree-High-Mixed	Agree-Low-Same	Agree-Low-Mixed
Close	Dislike	New	Acquaintance
Ritual-High-Same	Ritual-High-Mixed	Ritual-Low-Same	Ritual-Low-Mixed
Dislike	Close	Acquaintance	New

**Set 2: Context-Degree of Intimacy-Gender Pairing**  
**Intimacy Level**

Console-High-Same	Console-High-Mixed	Console-Low-Same	Console-Low-Mixed
Dislike	Close	Acquaintance	New
Congrats-High-Same	Congrats-High-Mixed	Congrats-Low-Same	Congrats-Low-Mixed
Close	Dislike	New	Acquaintance
Hello--High-Same	Hello-High-Mixed	Hello-Low-Same	Hello-Low-Mixed
Dislike	Close	Acquaintance	New
Farewell/Thank-High-Same	Farewell/Thank-High-Mixed	Farewell/Thank-Low-Same	Farewell/Thank-Low-Mixed
Close	Dislike	New	Acquaintance
Agree-High-Same	Agree-High-Mixed	Agree-Low-Same	Agree-Low-Mixed
Dislike	Close	Acquaintance	New
Ritual-High-Same	Ritual-High-Same	Ritual-High-Same	Ritual-High-Same
Close	Dislike	New	Acquaintance

Set 1 varied from Set 2 in the gender-pairing status per given intimacy level. To fully understand this design it is best to consult an example briefly. In the consolation-close handshakes, males and females in Set 1 shook hands with same-sex partners while males and females in Set 2 shook hands with opposite-sexed partners. Gender pairings varied within degree of intimacy degree so that participants in Set 1 shook hands with opposite-sex individuals and Set 2 shook hands with same-sex individuals, respectively, for consolation-dislike interactions. For the opposite degree of intimacy (low instead of high), Set 1 switched to shake hands with same then opposite-sex partners and Set 2 with opposite then same-sex for the console new and acquaintance handshakes, respectively. This ordering altered across the six social contexts.

**Apparatus.** The handshaking events were filmed using a Sony Digital Handicam DCR-TRV20 camcorder with 120x digital zoom lens onto a Sony Premium Mini Digital Videocassette DVM60 tape. The camera was placed on a tripod 140 inches from participants and was positioned at a height so that only the arms and hands of the individuals appeared in the video clips. The handshaking clips were then digitized onto a Macintosh Powerbook G4 computer using the *I-movie* (Macintosh) software package.

**Procedure.** Participants were randomly assigned to one of two counterbalancing sets and tested in groups of four individuals. Each group contained one male and female from Set 1 and one male and female from Set 2. After obtaining informed consent at the beginning of each group session, the researchers read the instructions to the participants. Please see Appendices B and C for copies of informed consent and the instructions, respectively.

The instructions indicated that participation involved shaking hands with individuals of the same and opposite sex in various imagined social contexts. One of the handshakers would be assigned the role of initiator for each handshake. In addition, the handshake would be characterized by a level of intimacy describing the interpersonal relationship between the handshake initiator and receiver. While one dyad shook hands, the remaining two participants were asked not to watch the interaction as to maintain unbiased handshaking behavior.

Before the onset of experimental trials, the researchers demonstrated four types of handshakes which they had come across in their review of handshaking behavior (Brown, 2002). These consisted of the Pump, Squeeze, Hand-on-Hand Pump, and Hand-on-Hand Squeeze.

Each of the four handshakes begins in an identical style. The shaking hands join at the space between the thumb and forefinger and the palm area on each shaking hand enclosing around the other person's fingers. At this point, different types of handshakes may develop according to the following features:

- Pump: The two handshakers join their shaking hands in traditional fashion as stated above and move their joined hands in an up-and-downward motion, "pumping" their intersected hands along a vertical plane for a specified duration.
- The Squeeze: The handshakers join hands in the traditional fashion but do not move their joined hands in any up-down or side-to-side motion, but merely hold onto the other person's hand for a particular duration.
- The Hand-on-Hand: This type of handshake resembles the Pump or Squeeze handshakes but varies in that the non-shaking hand participates in the handshake. While "pumping" or "squeezing," one of the handshakers places his or her non-shaking over and covering the joined, shaking hands. This hand-on-hand placement occurs almost simultaneously with the beginning of the Pump or Squeeze, so that there is no confusion in distinguishing between the latter two handshakes types.



The purpose of this demonstration was to ensure that all of the handshakers participated in the trials with the same level of awareness and background knowledge on handshake type. It also served the purpose of trying to minimize the effects of an artificial setting in case the experimental nature of the handshake interactions was distracting or made individuals uncertain of what to do. It is noteworthy that all sixteen subjects recognized the four types of handshakes.<sup>4</sup> Therefore, the demonstration did not present unfamiliar and confusing stimuli that would have altered the subjects' behavior. Further, it should be noted that the experimenters did not state why these four types of handshakes exist nor how they are used. Making any such suggestion would have confounded the data and moreover, the information on why and how these types are used is one of the goals that the present experiment seeks to determine! Therefore, the four types were presented as handshake options for the participants to choose from. The experimenters reminded the participants they should use any handshake behavior that seemed appropriate for a given scenario and they did not have to limit themselves to the four types shown to them.

Each group of four participants produced ninety-six handshakes. The handshakes were performed in sets that were clustered by context. After every four contexts, participants were presented with a new social context that was to characterize the next four handshakes. Intimacy level, gender of the initiator and gender pairing were randomized within each of these clusters. This was done to minimize time required to complete the experiment (about 45 minutes), while still maintaining randomly-ordered presentations of the counterbalanced sets. Those participants in groups 1 and 2 ran

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<sup>4</sup> Several participants enthusiastically asked if they would be able to use Hand-on-Hand types before the experimenters had the chance to demonstrate them for the participants.

through the order of handshakes from the first to the last handshake while those in groups 3 and 4 completed the list of handshakes in the reverse order to control for fatigue effects and initial shyness effects. Please see Appendix D for a list of the order of handshakes produced.

After finishing the trials, the participants were debriefed and thanked for their participation. Please see Appendix E for a copy of the debriefing form.

## **Results**

### **Scoring and Coding Techniques.**

The handshake interactions were digitized onto a Macintosh Powerbook G4 computer using the *I-movie* software package. The *I-movie* program enabled the researchers to view each of the 384 handshake interactions individually and in slow motion to one-thirtieth of a second per frame.

To determine the exact duration of each handshake, the researchers watched each handshake clip and “scrubbed” along the time-bar to find the handshake’s starting and end times. (Scrubbing the clip simply means moving the cursor along the time-bar to advance to specific moments in the video clip.) Start time was defined as the moment when two hands first contacted one another. End time was defined as the last moment of contact between the hands. By subtracting the start time from the end time, the experimenters determined the total time elapsed and exact duration of each handshake. As previously mentioned, it was possible to determine duration to one-thirtieth of a second.

It was not possible to determine exact start and end times for two of the handshakes as the videotape failed to record exactly when the hands joined or broke, respectively. Therefore, two data points for handshake duration were discarded and hence,  $n=382$  for duration analysis. The omitted duration data were for the following two conditions: female initiating to male in a hello-new scenario, and male initiating to female in a ritual-close setting.

After coding for duration, the viewed the video clips again in order to code for handshake type. During this phase of the experiment the researchers examined each handshake independently in order to objectively consider handshake type. The following five types of handshakes were observed:

- Single Pump: two joined hands move one time in an upwards then downward motion in one cycle of the pump handshake.
- Multiple Pump: two joined hands move upwards and downward along a vertical plane several times.
- Squeeze: two hands join together but demonstrate no vertical or horizontal movement; the hands remain stationary while in contact with one another.
- Hand-on-Hand Pump: two hands come into contact and complete either a single pump or multiple pump handshake during which at least one of the handshakers touches or places his or her non-shaking hand on the unified shaking hands.
- Hand-on-Hand Squeeze: the same handshake as described in the above hand-on-hand pump type except that the hands remain still and do not move along a vertical or horizontal plane in the hand-on-hand squeeze handshake.

Analysis of the coding revealed that the researchers were in 95.6% agreement with one another when determining handshake type. For the seventeen disparate results, the researchers re-viewed the handshakes in question and came to consensus about the

types. It should be noted that a majority of the disagreements were due to confusion as to whether the handshakes were single or multiple pumps; consensus was quickly and easily reached by reviewing the clip in slow motion.

**Handshake Type**

To examine the effects of social context and degree of interpersonal intimacy on handshake type, the researchers examined the percent frequency of handshake types produced as a function of the independent variables. Then they conducted a series of chi-square analyses to investigate the significance of frequency variance.

One of the most important findings is that handshake type varied with the social context in which it was produced. Individuals in the consolation context were most likely to produce the hand-on-hand pump handshake (37.5%). In the congratulatory and hello conditions, however, participants most often produced multiple pump handshakes (51.6% and 56.2%, respectively). The farewell/thank you, agreement, and ritual contexts most frequently evoked the single pump handshake (54.7%, 45.3%, and 56.2%, respectively). Please see the table below for the complete list of handshake types as they were produced in each social context.

**Table 3.** Percent Frequency of Handshake Type as a Function of Social Context.

<u>Context</u>	<u>Type of Handshake (%age produced)</u>				
	Hand-on-Hand Pump	Hand-on-Hand Squeeze	Multiple Pump	Single Pump	Squeeze
Console	37.5	9.4	23.4	20.3	9.4
Congrats	9.4	0.0	51.6	32.8	6.3
Hello	3.3	1.6	48.4	37.5	9.4
Farewell/ Thank you	0.0	0.0	35.9	54.7	9.4
Agree	1.6	3.1	40.6	45.3	9.4
Ritual	0.0	0.0	34.4	56.2	9.4

The types of handshake that were observed for each trial varied significantly as a function of its social context,  $\chi^2(20, N = 384) = 122.09, p < .001$ . The two variables, namely social context and type of handshake, were found to co-vary strongly with another  $C = .491$ .

Second, the level of intimacy between handshaking partners also led to differences in handshaking type. Individuals who were close friends were most likely to exchange multiple pumps (42.7%), while acquaintances were more apt to exchange less contact with single pump handshakes (43.8%). Interestingly, individuals who disliked their handshaking partners treated them the same as did those who did not know their handshaking partners (Dislike and New conditions, respectively). In both of these conditions, the handshaker initiated single pumps (42.7%) and multiple pumps (40.6%) with equal frequency. Please see below for a table depicting variation in the types of handshakes produced across the six social contexts.

**Table 4.** Percent Frequency of Handshake Type as a Function of Social Context.

<u>Level of Intimacy</u>	<u>Type of Handshake (%age produced)</u>				
	Hand-on-Hand Pump	Hand-on-Hand Squeeze	Multiple Pump	Single Pump	Squeeze
Close	9.4	3.1	42.7	35.4	9.4
Acquaintance	10.4	3.1	32.3	43.8	10.4
New	7.3	0.0	40.6	42.7	9.4
Dislike	8.3	2.1	40.6	42.7	6.3

The gender of the person who initiated the handshake also influenced handshake type. Women were more likely to engage in multiple pumps than any other handshake (51%), whereas men shook hands most often with the single pump (48.4%). Please see the table below to view the main effect of gender on type of handshake.

**Table 5.** Percent Frequency of Handshake Type as a Function of the Gender of the Initiator.

		<u>Type of Handshake (%age produced)</u>				
		Hand-on-Hand Pump	Hand-on-Hand Squeeze	Multiple Pump	Single Pump	Squeeze
Gender	Male	12 6.3%	5 2.6%	52 27.1%	93 48.4%	30 15.6%
	Female	21 10.9%	4 2.1%	98 51.0%	65 33.9%	4 2.1%
Total		33 8.6%	9 2.3%	150 3.9%	158 41.1%	34 8.9%

The gender of the handshake initiator strongly influenced the type of handshake he or she produced,  $\chi^2(4, N = 384) = 41.516, p < .001; C = .312$ .

Lastly, the gender of the handshake receiver co-varied with the gender of the handshake initiator to influence handshake type. When shaking hands with other males, male participants most often used the single pump handshake (52.1%), but when shaking hands with women, however, the percent frequency of this handshake type declined to 44.8%. Female participants were most likely to produce multiple pump handshakes when shaking hands with other women (60.4%). This outcome was reduced dramatically when women shook hands with men. In the latter situation, women were just as likely to use a multiple pump as a single pump handshake (41.7%). Therefore, it can be concluded that men and women were less likely to engage in the type of handshake they most often use when shaking hands with opposite-sex partners. Males and females were, in fact, more likely to adopt the handshake type of their partners as shown through the higher percentage of multiple pump handshakes (+8.4%) and single pump handshakes (+15.7%) in the male and female mixed-sex conditions, respectively.

**Table 6.** Percent Frequency of Handshake Type as a Function of Gender Pairing.

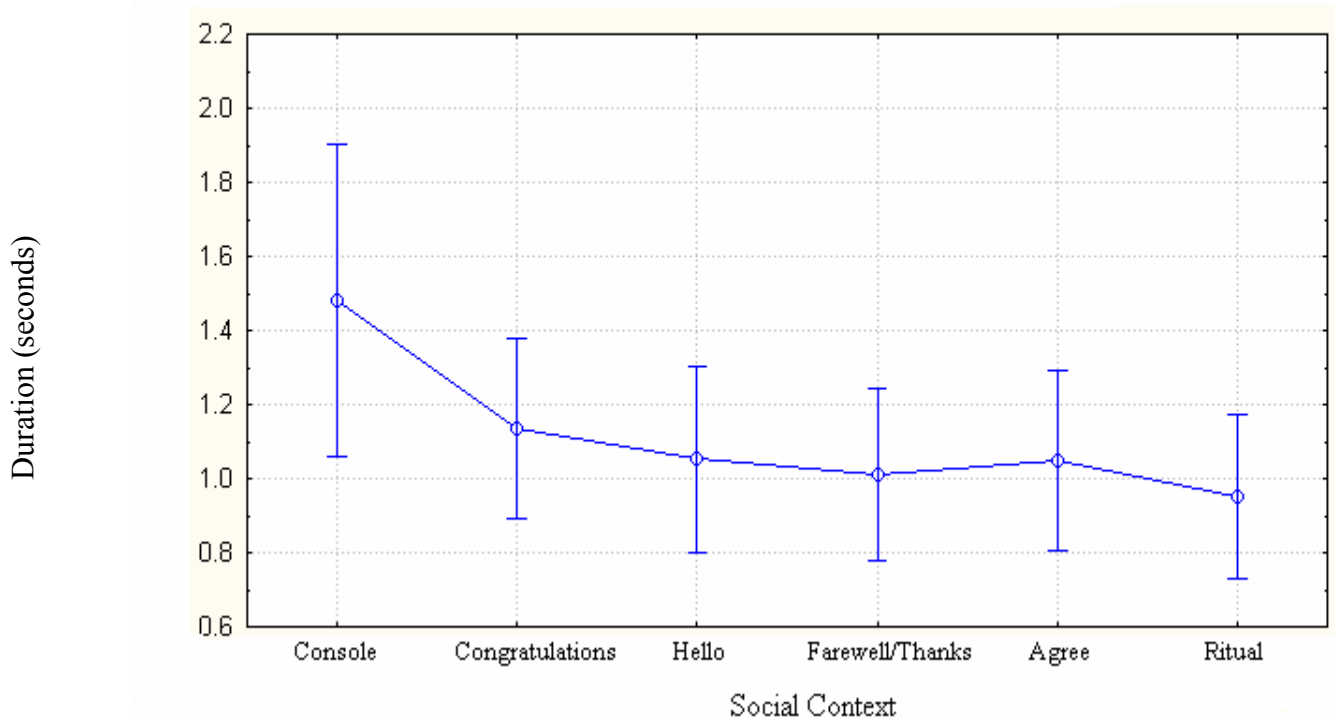
Gender Pair (Initiator-Receiver)	Type of Handshake				
	Hand-on- Hand Pump	Hand-on-Hand Squeeze	Multiple Pump	Single Pump	Squeeze
Male-Male	4.17%	3.13%	22.90%	52.08%	17.71%
Male-Female	8.30%	2.10%	31.30%	44.80%	13.50%
Female-Female	12.50%	0.00%	60.40%	26.04%	1.04%
Female-Male	9.40%	4.20%	41.70%	41.70%	3.10%

The effect of gender pair on type of handshake was found to be significant,  $\chi^2$  (12, N = 384) = 57.661,  $p < .001$ ; C = .361.

### Handshake Duration

The average handshake duration across all conditions was 1.10 secs. The longest observed handshake was initiated by a female participant to her male partner, held for 3.9 sec, and occurred in the consolation-new scenario. The shortest handshake was observed between a male initiator to his female partner for 0.1 sec in the ritual-new condition. An initial analysis of variance was conducted that relied on a 6 (context) x 2 (gender of initiator) x 2 (gender of recipient) x 2 (degree of intimacy) x 2 (set) mixed factorial. Intimacy was established as either a high degree (i.e. close and dislike) or low degree (acquaintance and new) in order to examine the effects of intimacy across counterbalanced sets. When significant differences emerged they were further analyzed through a set of Tukey post-hoc comparisons in which  $p$  was set to .05.

As seen in Figure 1, a main effect of social context was observed on handshake duration at  $F(5, 50) = 20.78$  ( $p < .0001$ ).

**Figure 1.** Main Effect of Social Context on Handshake Duration (secs)

A Tukey post-hoc comparison revealed that the handshakes produced in the consolation condition were significantly longer in duration than those produced in the hello ( $p < .008$ ), farewell/thank you ( $p < .003$ ), agreement ( $p < .007$ ), and ritual ( $p < .001$ ) conditions. Although the congratulatory context tended to yield longer durations than hello, farewell/thank you, agreement, and ritual conditions, these differences in fact were only marginally significant. Consolation and congratulatory durations varied from one another at an almost significant level ( $p < .065$ ). Lastly, the hello, farewell/thank you, and agreement contexts appear to produce essentially the same handshake duration.

Secondly, there was a significant interaction between gender and gender pairing on handshake duration,  $F(1, 10) = 4.93$  ( $p < .05$ ). This finding indicates that women,



overall, shake hands for a longer duration than do men. This holds for both same-sex and mixed-sex gender dyads. In contrast, men show longer handshake durations when shaking hands with women than with men ( $p < .05$ ).

**Table 7.** Mean Handshake Duration (secs) as a Function of Gender of Initiator and Recipient.

<u>Gender of Initiator</u>	<u>Gender of Recipient</u>		<b>Average</b>
	Same	Opposite	
Male	.95	1.12	<b>1.04</b>
Female	1.22	1.17	<b>1.20</b>
<b>Average</b>	<b>1.09</b>	<b>1.15</b>	

On average, women handshakers produce longer handshakes than do men. The result of this is that female-female dyads produce the longest average handshake durations out of all dyads. Furthermore, female handshakers have the effect of increasing male handshake duration when the two genders exchange a handshake. As seen above (Table 4), this finding holds for when females both initiate and received mixed-sex handshakes. A graphical depiction of this interaction can be found in Appendix F.

The overall ANOVA also revealed a significant main effect for intimacy  $F(1, 10) = 4.93$  ( $p < .05$ ). Perhaps not surprisingly, high degrees of intimacy produced longer handshakes between partners ( $M = 1.16$ ) than did low degrees of intimacy ( $M = 1.07$ ). Recall that because of the counterbalancing of set, intimacy refers to two degrees: high intimacy and low intimacy. In the former, participants imagined that they knew one

another well (close or dislike), whereas in the latter, participants treated their partners as people whom they were not familiar (acquaintance and new).

Lastly, there was a significant four-way interaction between context, intimacy, gender pairing and set demonstrated interaction effects on handshake duration,  $F(5, 50) = 2.51$  ( $p < .042$ ). These findings are presented in Table

**Table 8.** Mean handshake Duration (secs) as a Function of Context x Intimacy x Gender Pairing x Set.

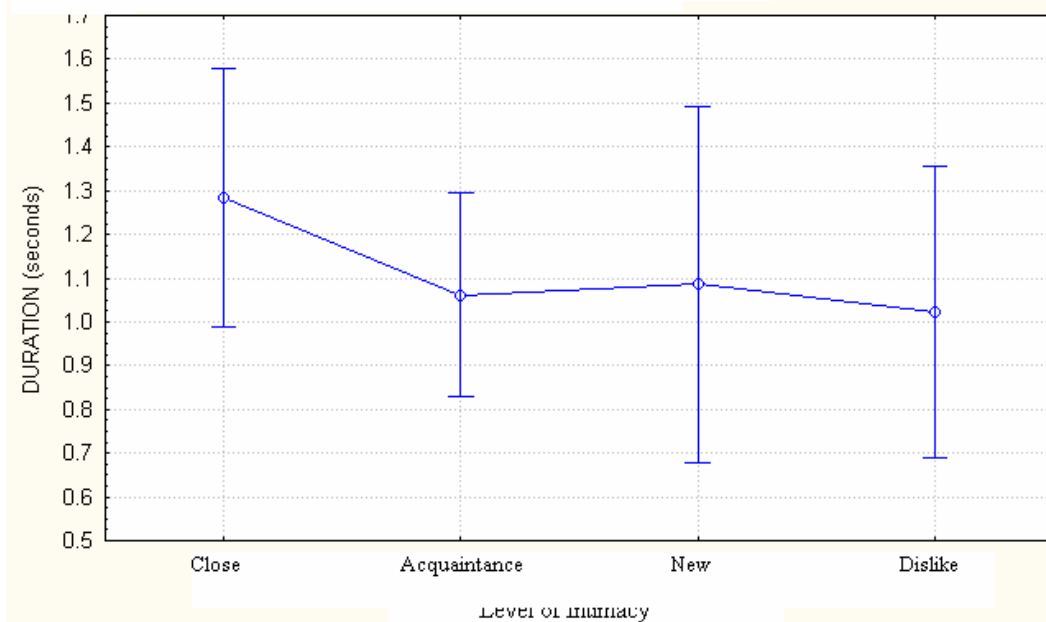
	Degree of Intimacy	Gender-Pairing	Context					
			Console	Congrats	Hello	Farewell/ Thank you	Agree	Ritual
Set 1	High-Intimacy	Same	2.09	1.37	1.13	.96	1.14	1.10
		Mixed	1.58	1.45	1.25	1.10	1.13	1.14
	Low-Intimacy	Same	1.00	.95	.85	1.02	.97	.80
		Mixed	1.20	1.25	.94	1.01	1.11	.90
Set 2	High-Intimacy	Same	1.37	1.02	1.10	1.03	.88	.83
		Mixed	1.37	1.08	1.05	1.09	.92	1.01
	Low-Intimacy	Same	1.26	1.03	1.01	.92	1.15	.85
		Mixed	1.72	.99	.99	1.05	1.01	.83

A Tukey post-hoc analysis revealed that only the consolation context produced significant contrasts across different degrees of intimacy and gender sets. When asked to console their handshaking partners, participants shook hands for longer durations, as was previously shown (Figure 1.) On average, individuals consoled for longer durations when shaking hands with same-sex partners than with opposite-sex partners in the high intimacy condition (+0.51 secs), whereas they shook for longer with opposite-sex partners in the low intimacy condition (+0.22, +0.11). A similar pattern of results was found in the congratulations context, although the durations did not vary as robustly from one another as in the consolation context.

**A Reanalysis of Intimacy.** In order to reexamine the main effect of the intimacy variable, that is, the effect of the four intimacy contexts as they were read aloud to the participants (rather than the two degree of intimacy groups into which the participants were placed), a second analysis of variance was conducted. In this second ANOVA, social context was examined as a function of the four intimacy levels (Close, Acquaintance, New, and Dislike). Here, gender pairing was ignored as it varied across set. The findings revealed two findings of note.

First, handshake duration was shown to vary as a function of intimacy level,  $F(3, 36) = 6.021$  ( $p < .002$ ). The close intimacy level was significantly longer than the remaining three intimacy levels, which did not vary much from one another.

**Figure 2.** Mean Duration as a Function of Intimacy Level.



Lastly, an interaction between context and intimacy level approached significance,  $F(15,180) = 1.61$  ( $p < .075$ ). The means for the interactions are as follows:

**Table 9.** Mean Handshake Duration (secs) as a Function of Context and Intimacy.

Social Context	Level of Intimacy			
	Close	Acquaintance	New	Dislike
Console	1.84	1.41	1.55	1.11
Congratulations	1.35	1.07	1.00	1.15
Hello	1.21	1.07	0.98	0.94
Farewell/Thank you	1.04	1.02	0.98	1.00
Agreement	1.13	0.86	1.10	1.06
Ritual	1.15	0.90	0.90	0.87

The data indicate that a close relationship with one's handshaking partner causes the initiator to produce longer handshake durations for all social contexts, and especially in the consolation condition.

## Discussion

### Summary and Interpretation of the Results

The results from this experiment indicate that handshaking behavior varies as a function of social context and one's interpersonal relationship with a handshaking partner. The gender of the handshake initiator also exhibits an influence on both handshaking type and duration, as does gender of the recipient. These findings both support and extend the research on nonverbal behaviors. Earlier studies have indicated that a person's personality traits may produce specific manners of handshaking (Chaplin 2000; Astroem 1994). The results here demonstrate that social and interpersonal factors mediate the styles of handshaking that individuals choose to exhibit.

*Context and Intimacy.* One of the most significant findings from this experiment is the effects of social context observed on handshake type and handshake duration. In the more intimate of the six social contexts, namely consolation and congratulations, in which participants were seeking to establish a more intimate connection with their partners than in various other contexts, individuals demonstrated more touching behavior to help foster that intimate connection.

Of the six social contexts, consolation produced the longest periods of contact, including the longest single handshake duration, the longest average handshake duration, and more hand-on-hand pumping handshakes than other handshake type. The fact that this emotionally intimate setting elicited the greatest amounts of touch complements earlier research which found the quantity of touching between individuals is directly related to the level of emotional intimacy between them (Heslin & Boss, 1980). Recall that Major & Heslin (1982) observed greater amounts of touching effectively conveyed and brought forth greater intimacy within a dyad. Similarly, individuals wishing to increasing the level of comfort and intimacy in a given social interaction touch their social partners more, as seen in the literature on touch therapy and psychological therapy. (Tommasini, 1990) Therefore, in this specific context where the handshaker sought to comfort a grieving partner, it is not surprising that he or she initiated a touch that involved as much hand-to-hand contact as possible.

To further illustrate this point, the average duration of consoling handshakes measured 1.48 secs, which is indeed longer than the average duration produced across all experimental conditions (1.10 sec). The longer durations within the consolation context suggest that individuals had internalized this value (that touching connotes intimacy), and

intentionally prolonged their handshakes to convey levels of empathy appropriate for these contexts. Along these lines, the average durations produced in the social contexts of hello (1.03 secs) , farewell/thank you (1.01 secs), agreement (1.04 secs) and ritual (0.96 secs) did not vary significantly from one another in average duration, although were significantly lower than those produced in the consolatory and congratulatory conditions. This finding is noteworthy as it suggests intimate social contexts evoke different handshaking responses than less intimate, more indifferent interactions.

Within the consolation context, individuals demonstrated preference for handshake types that involved relatively higher amounts of touching. The type of handshake observed most frequently for consolation shakes was the hand-on-hand pump. The second-most preferred handshake for this context was the multiple pump, followed by the less frequent single pump and lastly by the hand-on-hand squeeze and squeeze. The two squeezing handshakes occurred at equal, low levels (less than ten percent of total handshakes each). This order of frequency suggests different types of handshakes convey different interpersonal messages.

An examination of handshake type as the result of all six social context provides clues as to what each handshake type may connote. In the most intimate of the social contexts, namely consolation and congratulations, there was a tendency to produce hand-on-hand pumping handshakes, suggesting that these types of pumps convey a strong sense of interest and engagement in the handshake recipient. For congratulations and greeting scenarios, the most frequent type of handshake demonstrated was the multiple pump, perhaps because it signals affability and warmth without forcing more intense “hand-on-hand” connotations of intimacy onto the receiver. The single pump handshake

was the most common type demonstrated in ritual, agreement, and farewell contexts. By comparison, single pumps seem blunt and business-like, and thus are well-suited to these least intimate of the six social contexts.

Multiple pumps inherently involve more touch at a longer duration than do single pumps, suggesting that more touch is likely to occur when individuals try to establish a sense of rapport with others (i.e. greeting) or communicate sincere best wishes (i.e. congratulations). Single pumps involve less contact and are more apt to occur in more formal, ritualized settings (such as farewell, sporting events, or sealing a business deal). In a sense, single pumps are more of an obligatory gesture performed out of politeness and social convention, and therefore requiring less contact. The lack of physical effort required to produce a squeeze (versus that required for any pump handshake) may signal a disinterest in communicating and a lack of empathy. Thus, shaking with a squeeze may connote low levels of empathy and even socially-undesirable emotional frigidity and is likely to be used rarely, if ever, especially in intimate situations of consolation and congratulations. The data support this as only a mere fraction of the total number of pump handshakes produced in these two social context were of the squeeze variety.

These specific communicative functions of individual types of handshakes are supported by the effects of intimacy level on resulting handshake types. Multiple pumps involve more contact at a longer duration, and are thus better suited to occur between close friends than are single pumps which, by nature, require less contact. Single pumps hereby seem best suited for social acquaintances.

As seen with effects of context on type of handshake produced, intimate social settings exhibit strong influences on handshaking behavior. First, the consolation context

caused participants to touch their partners more across all intimacy levels. Within this context, consoling a close friend elicited the longest observed handshake, whereas consoling a partner whom the initiator did not like produced the shortest average within-context duration. This fits with the existing knowledge of interpersonal touching behavior in that with touch, a handshaker's purpose is to convey empathy and create a connection with his or her partner. Hereby, it makes sense that the imagined closer connection between the initiator and recipient caused the handshaking partners to prolong their handshakes of consolation in the close condition versus in the dislike condition. Moreover, handshakes produced in the dislike condition were shorter, on average, than the experimental average duration (1.02 secs and 1.10 secs, respectively). For this intimacy level, handshakes increased in average duration during the consoling and congratulating scenarios (1.10 secs and 1.11 secs, respectively) to approximately equal the experimental average duration. Thus, intimate social contexts cause significant effects on handshaking behavior. These effects are not independent of the intimacy level shared by handshaking partners. Displayed styles of handshaking, as defined by type and duration, are due to an interaction of these factors.

Examining handshaking behavior within the "new" or stranger intimacy level further reveals that handshake type varies as a function of intimacy. Individuals rarely demonstrated squeeze handshakes in this intimacy condition as they may have been wary of using an relatively sterile handshake that would create a negative "first impression." Participants were slightly more willing to use squeeze handshakes when they were already acquainted or close with their partners.



Likewise, individuals were also careful to avoid the hand-on-hand pump in the new intimacy level, supporting the idea that high levels of touching in the hand-on-hand pump convey a very high level of intimacy – one not appropriate or expected in these interactions between “new” partners. Therefore, when shaking hands in the new condition of intimacy, individuals were (logically) more likely to shake with the single or multiple pumps. Thus, the type of handshake produced is a function of the intimacy level as it exists between handshaking partners. All in all, type of handshake used suggests the type of connection the handshake initiator is trying to establish with his or her partner.

In conclusion, it appears that very intimate social and interpersonal situations affect social interactants strongly, as seen in the long, tactile responses that consolation and congratulatory contexts elicited across intimacy levels. This would cause individuals to produce very specific and deliberate handshakes, resulting in more variation across other variable levels as was previously mentioned.

Since previous research has shown that when individuals like one another, they touch more than non-liking individuals, it can be deduced that handshake durations in the former high intimacy condition would have been longer than those in the low condition. These affects support the notion that individuals who are closer and more friendly to one another shake hands for longer durations than those who are less friendly with one another.

*Gender Relationships.* With this understanding of handshake type as a tool to establish a relationship with one’s handshaking partner, it is very interesting to examine the styles of handshaking behavior that arise as a function of gender relationships. Across all social scenarios as they varied by context and intimacy, women favored use of the multiple

pump whereas men most often produced the single pump. The tendency for men to shake hands using only one pump may be due the fact that men shake hands more frequently than women in our society. As this penchant has been long-standing (though the rise of women in the office setting in the past thirty years has increased the number of female handshakers), men are more used to shaking hands than women. Perhaps this causes men to be more matter-of-fact or efficient, even, in their handshaking displays. As a result, men select single pump handshakes because they desire to decrease the amount of time required per handshake interaction as they expect to complete more handshakes than will women in a given time period. Men increase their handshaking efficiency without sacrificing conveyed sincerity. Using a single pump decreases handshake duration without males have to awkwardly break off or “cut short” a handshake that by nature either more time to complete (i.e. multiple pump) or by nature requires less effort (i.e. squeeze), the latter of which causing the handshaker to be perceived as socially aloof or even self-centered. Moreover, as cited in the previous section, single pumps serve obligatory, ritualistic communicative functions. Because men have traditionally shaken hands more often than women in social interactions (Heslin & Boss, 1980), they may perceive their handshaking behaviors as rituals in and of themselves, hence adopting the single pump as their customary type of handshake.

This is connected to the logic behind women’s preference of the multiple pump style. Based on the earlier discussion of multiple pump handshakes as strong signals of emotional interest and previously conducted research on women’s tendency to display high levels of emotionality in their nonverbal gestures (Knapp, 1992), women would certainly be most likely to choose multiple pumps for their everyday style of handshaking

over other types. Therefore, the fact that women most often employ multiple pumps can be added to the list of nonverbal gestures (that includes higher amounts of eye contact and more frequent touching), in which women demonstrate more emotion and intimacy than men.

The past two discussions on men's proclivity for the single pump and women's tendency to shake with the multiple pump are consistent with the duration data gathered in this experiment. The gender of handshake initiator demonstrated a main effect on handshake duration: women, on average, produced longer handshakes than did men. In this case, the actual logistics of each handshake type explain the longer amount of time to complete the handshakes produced by women (i.e. multiple pump) and the shorter amount of time required to complete the handshakes more often produced by men (i.e. single pump). Logically, less time is required to pump only one time than to pump them together numerous times.

An interesting interaction occurs between gender of the handshake initiator and gender pair on handshake duration that suggests the intent to communicate intimacy is the reason for gender differences in average handshake duration, than merely the logistics of the two pumping styles. The more female participants present in a handshaking dyad, the longer that dyad's average duration. Both male and female participants increased their handshaking durations when shaking hands with female receivers. As previously stated, women produced longer average handshakes than men. The longest average handshakes were produced in female-female handshaking dyads; the shortest durations produced by male-male dyads. When men initiated handshakes with female partners, their average durations increased. The opposite effect was observed when women

initiated to male handshaking partners. These findings suggest a dynamic interaction occurs between the individual and his or her understanding of social norms related to gender roles and nonverbal behavioral displays.

This finding is very much in line with previous nonverbal research that shows women are more relationship-oriented than are men and attempt to establish warmth, a common connection, and a rapport with others in social interactions (Giles & Smith, 1979; Giles, Coupland & Coupland, 1991; Tannen, 1990). This explains why women are most likely to use multiple pumps and handshake for long durations, as these relatively high levels of touching behavior establish stronger connections with interactants than lower amounts of touching behavior. Men, on the other hand, are less interested in establishing rapport and a relationship with others; they are more competitive and interested in asserting power. Hence, men are more likely to use the single pump handshake—the type most often demonstrated in the ritual athletic competition context (56.2%) of this experiment.

Strauss & Quinn (1997) defined this view that women and men hold divergent social priorities the “two culture theory,” and suggested that the sexes have different cultures, needs, and experiences which lead them to different ways of approaching and understanding one another. Tannen (1990) demonstrated the two-culture theory through gender differences in speech, suggesting that men and women use speech for different purposes. For instance, women ask questions to maintain conversation whereas men ask questions in order to request and receive information. The results from the present study suggest that women and men use handshaking for different purposes, which in turn explains gender differences in preferred type of handshake. Specifically, women use

handshakes to establish connections and develop relationships with other individuals. On the other hand, men, who shake hands more often than women, employ handshakes for more ritualistic functions to, in a sense, maintain social relationships. Men shake hands to signify an interaction has or is about to take place (as Schifffrin's suggested in 1951 with her access ritual theory), whereas women use handshakes to develop a rapport with social partners. The result of the two culture approach to handshaking is that men are likely to use the single pump type of handshake and women the multiple pump handshake, as the data in this experiment clearly demonstrates.

A review of touching behavior states that individuals who touch more are rated as more socially attractive and certain of themselves (Knapp, 1992). With this information, one can read the effect of gender pairing on handshake duration as male participants trying to create favorable impressions in the eyes of their female handshaking partners. Men increased their duration when shaking hands with women because women, on average, women have longer durations than do men. Conversely, women shorten their durations when shaking hands with men as they adopt the shorter handshaking styles of men. The changes in duration due to gender pairing may be due to several effects.

First, the observed change in handshake behavior as a result of gender pairing may be due to accommodation effects. Accommodating to the other gender's manner of handshaking performs several functions, namely to increase rapport between individuals. When two interactants exhibit similar nonverbal behaviors, they see one another as sharing more similarities and establish strong social ties. Women, in general, are more interested in improving interpersonal rapport (Strauss & Quinn, 1997), and as the data showed, adopted their male partners' single pumps more readily than men adopt their

female partner's multiple pumps. In addition, accommodate lends itself to clearer, more effective social interactions. When individuals are more in tune with one another nonverbally, both nonverbal and verbal messages are communicated more clearly between the interactants (Giles & Smith, 1979).

Another explanation takes sexism effects into consideration. Men may see women as uncertain of themselves in social situations and may increase the amount of male-female touching in an attempt to appease their fears and calm them. These male initiators may also be making sexual advances toward their female handshaking partners. Since individuals who touch more are perceived as more likeable and friendly, male participants may increase handshake duration in mixed-sex pairs to try and win over their feminine partners. This suggestion raises an idea for an interesting future study which would examine handshaking behavior as initiated by both homosexual and heterosexual initiators in same and mixed-sex dyads. If the latter interpretation of the results is true, this future study should expect to see longer average levels of duration in the homosexual-same sex dyads and heterosexual-mixed sex dyads when compared to the homosexual-mixed and heterosexual same dyads, respectively.

*Observations and Directions for Future Research.* A revisit to Schiffrin's (1951) classification of handshakes as access rituals may explain the results found within the farewell social context. According to Schiffrin, handshakes signal a desire to communicate with other individuals. When there is an expectation of little or no future contact with another person, individuals are less likely to invest themselves in the social interaction. Schiffrin found that, in these situations, participants did not produce

handshakes but greeted one another with more effortless nonverbal acknowledgements, such as a waves or head nods.

In this experiment, participants were asked to imagine a farewell social context, hereby mimicking the scenario set up in Schiffrin's experiment (1951). In this context of bidding one another goodbye, participants were asked to terminate communication and were provided with no expectation of future contact in each given scenario. Participants primed with this expectation would, according to the notion that handshakes serve as access rituals, be less likely to produce a handshake. In this experiment, however, the goal of each trial was to produce the most appropriate handshake for the situation, so that not producing a handshake was not seen as an option. The average durations produced in the close, acquaintance, new and dislike conditions within the farewell context were 1.04 secs, 1.02 secs, 0.98 secs, and 1.00 secs, respectively. There was very little variation across intimacy level within the farewell context. These results, when considered in line with Schiffrin's access ritual theory of handshaking, suggest that social context has a stronger influence on handshaking behavior than does interpersonal intimacy level. Therefore, because participants were primed with the mindset that a handshake was not fully relevant to the situation, it would be expected that the other details, such as intimacy level and gender pairing that produce effects within other contexts, would have little effect and produce little variability across intimacy levels. This finding was in fact, observed, as the farewell/thank you context caused the least amount of variation between handshake durations of varying intimacy and gender pairing levels. This finding supports the idea that social context has stronger influence than interpersonal intimacy on handshaking behavior, which should be investigated in future research.

Interestingly, the lowest average durations across all conditions of the experiment were consistently produced in the ritual context. This is most likely due to the nature of the ritual condition as defined to the participants. In this study the ritual context set up a condition of antagonism and even animosity between participants as they were told to imagine shaking with competitor. In this context individuals were likely to have been less focused on creating a favorable and friendly impression of themselves as they were about to engage in competition with their social partners. As a result, duration decreased. Participants acted more unemotionally and matter-of-factly by choosing single pump handshakes in over fifty-six percent of the ritual trials.

This finding brings up interesting ideas for future studies and highlights an important facet of nonverbal communication. Given that context consistently produced lower durations than the other contexts, this suggests that each different handshaking context is governed by rules that determine appropriate durations for it. In other words, specific social rituals are governed by their own set of rules that evoke durations norms that are specific to that ritual. It would be interesting to compare the average duration produced by this ritual context with average durations produced by other ritual contexts, such as shaking hands after an athletic competition as opposed to before it, or shaking hands with another person as one would at a church or religious service. Examining distinct social situations within the ritual context would further highlight the main effect of social context on duration of handshakes.

In a future study investigating the relationship between personality and handshaking behavior, participants could be given personality questionnaires testing their degree of “masculinity” or “femininity.” It is expected that those who are more feminine



would exhibit longer average handshake durations and those who are more masculine (regardless of biological sex) would display shorter average handshake durations.

Other personality measures, such as how socially aware or socially empathetic a person is, would allow for very interesting theoretical conclusion. It is logical that a person who is more aware of and sensitive to social norms would exhibit more consistent patterns in handshaking behavior. For instance, individuals with high measures of these personality variables would produce longer durations in more intimate social contexts and relationships. This pattern of behavior would be amplified according to the individual's gender and gender relationships within handshaking dyads.

An interesting observation was recorded while videotaping the handshakes for one group that led the researchers to question more fully the role that personality plays in predicting handshake behavior. In one of the four experimental groups, one male participant almost always sought to initiate the handshakes he was involved in, regardless of whether he had been assigned the role of initiator or receiver. Past research on touching behavior has concluded that dominant individuals initiate contact more often than less dominant individuals. A useful future experiment could include a personality scale with this design, then compare the main effect of certain personality factors against the main effect of social context (as well as an interaction between the two), on produced handshake type and duration. This design would address the question of which influence, personality or social context, plays a larger role in mediating handshake behavior.

A further complication in understanding handshaking interactions is that one person's idiosyncratic style of handshaking may produce carry-over and accommodation effects in his or her partner's handshaking partners. The researchers observed that

several participants shook hands in unique, though very consistent manners. Among these various styles were vigorous, pumping and half-handed, incomplete grips. In this experimental design participants shook hands with the other three group members a total of forty-eight times. Previous research (Knapp, 1992) showed individuals come to expect certain styles of touching from their social partners and assimilate or match their own behavior patterns to those initiated by their partners. The effects of such a handshaker on others' handshaking behavior could be tested by comparing confederate and control conditions within a design in which the confederate always demonstrated the same manner and type of handshake. Any reduction in the level of variation across conditions that contained the confederate would serve as evidence for individual personality carry-over affects.

In general, there is a need for future research to investigate the extent to which the present set of results generalize to other subpopulations of people. It is reasonable to assume that differences in manner and, on an even more rudimentary level, frequency of handshaking behavior will vary as a function of handshakers' ages. It is likely that adults are more likely to shake hands with one another than are children and adolescents. Further, it would be interesting to investigate any generational differences in style and frequency of handshake behavior. As American culture continues to become more informal, the amount of handshaking, a formal greeting gesture, may decrease and be replaced by more informal hand slaps, "high-fives," or other greeting gestures, some of which is apparent today but lacks empirical support. Along these lines, it would be useful to investigate cultural differences in displays of handshaking behavior. The social background that sets norms for understanding and using nonverbal behaviors would

surely influence handshaking behavior. With this same argument that nature (i.e. background cultural influence) shapes experiences and approaches to others, there may exist differences in handshaking behavior between individuals who belong to different socioeconomic groups within a given society.

*Other Handshake Variables.* As hinted at in the above discussion, handshake firmness is an interesting characteristic of handshaking that may prove to provide information about a handshaker's emotional involvement in the situation or with the social partner. The researchers observed decreased levels of firmness (defined by less complete grip, limper wrist, weaker vigor when pumping) in intimacy levels of dislike. It is hypothesized that when individuals have little interest or use for their social interactant, such as in the dislike condition, they will engage him or her less. This depleted level of interest and commitment can be seen through nonverbal behavior such as a limper, less-enthused handshake. This finding replicates Astroem's (1993) work with clinical populations for which she found more psychotic individuals who experienced detachment from society and social norms produced weaker handshakes.

In this vein, participants in the agreement condition often presented very firm handshakes, especially when the handshake occurred between two males. The premise of agreeing and "sealing the handshake deal" may have alerted individuals to pay more attention to the social context and their interactant. In a sense, entering into an agreement puts an individual at risk for personal loss, and doing so causes individuals to become more aware of others in relation to the self and the risks at stake. This heightened awareness engages the handshaker's interest more than other social contexts. As a result there should arise a pattern in handshakes within the agreement context that vary across

intimacy level. For instance, handshakers may feel the need to address strangers and close friend differently (i.e. divergent levels of firmness) when establishing agreement. Similarly, more emotional situations held the handshakers' levels of attention and increased handshake duration (see results for main effect of context and intimacy on duration). Perhaps agreement is a context that demands a show of force and power to indicate that the handshaking individual is not to be taken advantage of, whereas more emotional contexts of consoling and congratulating demanded higher levels of intimacy and empathy, which can be conveyed through increased amounts of touching.

*Need for Converging Operations.* The results observed in this experiment could be based on social stereotypes of how individuals believe they ought to act in different social contexts or intimacy levels, instead of reflecting people's actual behavior. Hence, there is a need for converging operations to determine whether similar results for handshaking behavior occur in different methodological designs.

Whether the handshaking behavior that was produced and considered appropriate for the six different contexts and four intimacy levels is in fact perceived as such by an independent group of participants calls for converging operations via a perception study in which individuals view the handshakes produced in the present study. In this new perception study, the objective would be to determine if individuals can recognize the motivations of the scenarios (i.e. context x intimacy) that produced the distinct handshakes. To this end, participants would view and respond to the video clips individually, describing the apparent social context in which the handshake occurred, the relationship between the handshakers, the purpose of the handshake, and the appropriateness of the handshake based on these observations. By measuring levels of

appropriateness between handshakers, this perception study unpacks the underlying gender expectations that govern and frame all social interactions, particularly on the subtle level of nonverbal exchanges.

Within this experiment one could test levels of perceived dominance through handshake behaviors. Touch initiators are perceived as dominant individuals. Men initiate more touches than women. Men also handshake more than women in American society. To test if these statements affect how handshakes are perceived and if gender-based expectations for social dominance exist (i.e. men are more dominant than women), the experimenters could compare the number of times that males and females were perceived to have initiated a handshaking interaction against the number of actual handshake initiations. If participants view the male participants as accounting for more handshakes than they actually initiated, it could be assumed that the perceivers held a gender-based expectancy of higher social status in the direction that the more initiative gender. This expectancy on another's behavior would then have been proven strong enough to influence individual visual perception as well as cognition.

## **Conclusions**

The results from this study indicate a reciprocal, cooperative relationship exists between the handshaking individual and his or her environment. When a situation is highly engaging, the individuals are likely to touch for longer periods of time. Thus, patterns of heightened attention are observable through nonverbal behaviors.

Studying the interaction between two pairs of hands according to their touching patterns along duration and type variables has furthered the psychological literature about

handshaking and nonverbal communication. Handshaking is now seen as a very intentional, directed, and outwardly social and interpersonal gesture. It invites and requests social and interpersonal communication, exposing information about the handshaker and his relationship to those and society around him or her. The results from this study show that handshakes are fully capable of communicating socially-relevant nonverbal information. In particular, handshake type is used to establish a rapport or relationship with handshaking partners, and handshake durations seek to establish empathy and levels of intimacy.

Interpersonal interactions occur as packages of verbal and nonverbal clues for social actors to perceive, receive, and respond to. Social and personal experiences create expectations for nonverbal behavior that can vary according to gender. There is an incredible dynamism that exists between individual handshakers, their surroundings and social partners that continues to produce changes in nonverbal behavior. These patterns are so consistent and reliable that social actors use them to gauge the true motivations behind social interactions.

By studying the role and functions of a handshake gesture one can understand how relationships to others and society overall mediate individual behavior. Handshakes serve the interpersonal function of communicating relevant information, as well as the larger social function of maintaining social relationships and providing nonverbal cues to help individuals better negotiate through their social environments.

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**Appendix A: Illustration of Handshake Types**

## Appendix B: Informed Consent

### PARTICIPANT'S INFORMED CONSENT

The purpose of this experiment is to examine the role of handshake behavior given different contextual settings. This experiment is being conducted by Jennifer Huwer (jhuwer@haverford.edu) and Kristen Wilson (kwilson@haverford.edu) as a senior thesis research project at Haverford College. The experiment is being run under the supervision of Professor Marilyn Boltz (mboltz@haverford.edu). Any of the three researches may be contacted should you have any questions about the study.

The study takes approximately 45 minutes to complete. If you choose to participate, you will be asked perform 24 handshakes, each of which will be videotaped. The video clips will contain only your arm and hand. All of your clips will be identified only by an assigned number, and not by your name.

This study is expected to pose no risk to the participants. The procedures are non-invasive and are not expected to create distress or discomfort. This research is not designed to produce any direct benefit to the individuals who participate, though we hope that it will help to advance our knowledge regarding the social role of handshaking behavior. For your participation, you will be entered into a lottery with all of the other subjects to receive a cash prize.

By signing below, you indicate that you have had all of your questions answered and that you voluntarily agree to participate. Even once you agree to participate, you should be aware that you can discontinue participation in the experiment at any time without penalty or consequences to you. You should also know that you have the right to ask questions about the general nature of the experiment at any time.

I give my informed consent to participate in this experiment.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **Appendix C: Instructions**

### **Instructions**

Each of you has received a number. You will wait in this room until your number is called. You will be called from this room two at a time and be asked to perform a handshake with your partner.

For each handshake we are going to read to you a brief description of the social context in which you are shaking hands with your partner. We will then tell you the relationship that you have with your partner, for instance, you are close friends or strangers. Knowing these factors, please imagine yourself in that situation and perform a handshake that feels appropriate for it.

For each handshake, one of you will be assigned the role of “initiator.” This means that you will begin the handshake sequence by extending your arm slightly before extends his or her arm.

Each handshake will be videotaped in a manner that will only display your arms and hands. Please remove any jewelry including rings, bracelets and watches that you are wearing on your hands. If you are wearing long-sleeves, please roll up the sleeves to your elbow.

Any questions?

**Appendix D: Counterbalanced and Randomized Order of Handshakes Produced During Trials**

**(Groups 1 and 2 performed the order from #1-#96;  
Groups 3 and 4 performed this list from #96 to #1)**

Context	Intimacy	Initiator	Receiver
1 CONSOLE	CLOSE	M1	M2
2		F1	F2
3		F2	M1
4		M2	F1
5	NEW	M1	M2
6		F1	F2
7		F2	M1
8		M2	F1
9	ACQ	M2	M1
10		F2	F1
11		F1	M2
12		M1	F2
13	DISLIKE	M2	M1
14		F2	F1
15		F1	M2
16		M1	F2
17 CONGRATULATIONS	CLOSE	M2	M1
18		F2	F1
19		F1	M2
20		M1	F2
21	NEW	M2	M1
22		F2	F1
23		F1	M2
24		M1	F2
25	ACQ	M1	M2
26		F1	F2
27		F2	M1
28		M2	F1
29	DISLIKE	M1	M2
30		F1	F2
31		F2	M1
32		M2	F1
33 HELLO	CLOSE	M1	M2
34		F1	F2
35		F2	M1
36		M2	F1
37	NEW	M1	M2



**Appendix D: Counterbalanced and Randomized Order of Handshakes Produced During Trials (ii)**

38		F1	F2	
39		F2	M1	
40		M2	F1	
41	ACQ	M2	M1	
42		F2	F1	
43		F1	M2	
44		M1	F2	
45	DISLIKE	M2	M1	
46		F2	F1	
47		F1	M2	
48		M1	F2	
49	FAREWELL/THANKS	CLOSE	M2	M1
50		F2	F1	
51		F1	M2	
52		M1	F2	
53	NEW	M2	M1	
54		F2	F1	
55		F1	M2	
56		M1	F2	
57	ACQ	M1	M2	
58		F1	F2	
59		F2	M1	
60		M2	F1	
61	DISLIKE	M1	M2	
62		F1	F2	
63		F2	M1	
64		M2	F1	
65	AGREEMENT	CLOSE	M1	M2
66		F1	F2	
67		F2	M1	
68		M2	F1	
69	NEW	M1	M2	
70		F1	F2	
71		F2	M1	
72		M2	F1	
73	ACQ	M2	M1	
74		F2	F1	
75		F1	M2	
76		M1	F2	
77	DISLIKE	M2	M1	
78		F2	F1	

**Appendix D: Counterbalanced and Randomized Order of Handshakes Produced During Trials (iii)**

79		F1	M2
80		M1	F2
81	RITUAL		
	CLOSE	M2	M1
82		F2	F1
83		F1	M2
84		M1	F2
85	NEW	M2	M1
86		F2	F1
87		F1	M2
88		M1	F2
89	ACQ	M1	M2
90		F1	F2
91		F2	M1
92		M2	F1
93	DISLIKE	M1	M2
94		F1	F2
95		F2	M1
96		M2	F1

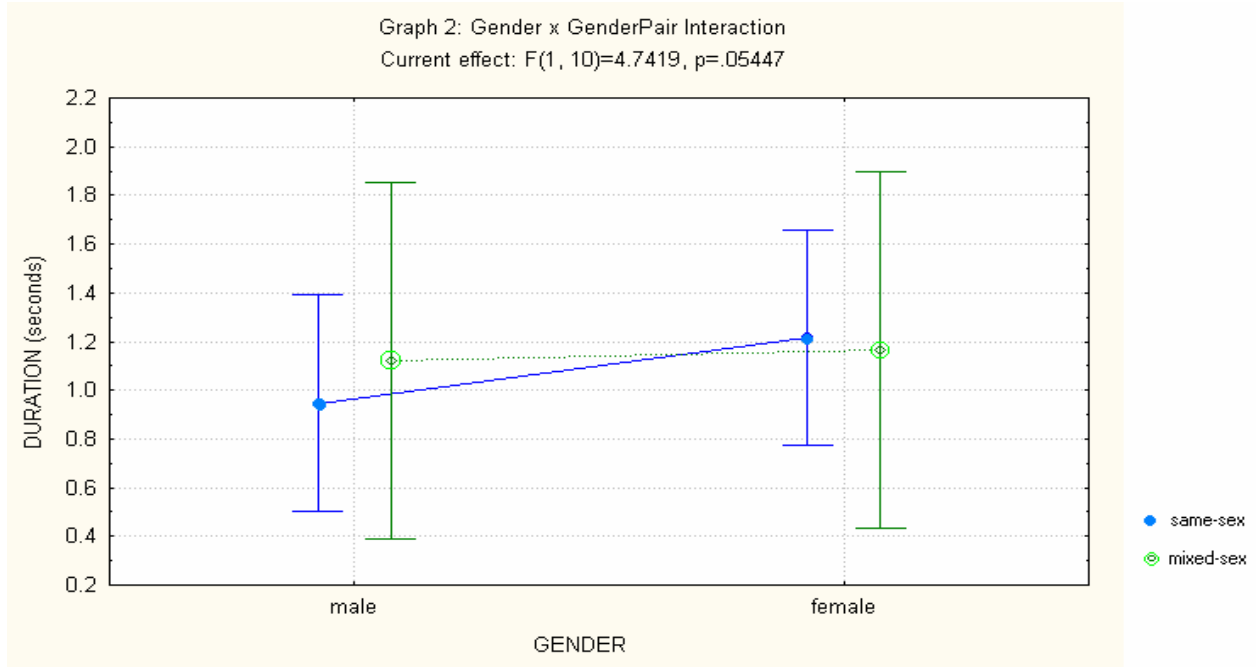
## Appendix E: Experiment Debriefing Form

### Experiment Debriefing

Thank you very much for your participation in this study. Your participation has helped us to examine how individuals may use different styles and manners of handshaking to convey different social messages. The primary purpose of the study was to investigate whether different types of handshakes are used for different social functions; whether the perceived meaning of a given handshake depends on its duration; and lastly, whether there are gender differences in handshaking behavior.

Because other students at this school will also be participating in this study, we ask that you please do not discuss the study with other individuals. We want to avoid biasing future participants to perform in certain ways. Thank you again for your cooperation. If you have any questions about the experiment, please feel free to contact Professor Marilyn Boltz ([mboltz@haverford.edu](mailto:mboltz@haverford.edu)), Jennifer Huwer ([jhuwer@haverford.edu](mailto:jhuwer@haverford.edu)), or Kristen Wilson ([kwilson@haverford.edu](mailto:kwilson@haverford.edu)).

### Appendix F: Gender x Gender Pairing Effects



## Appendix G: Handshaking Scenarios

### 1. Console

Your partner has just lost someone s/he loved and is feeling down. Offer a handshake in consolation.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all.
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### 2. Congratulations

You are at your handshaking partner's college graduation. Offer him/her a handshake of congratulations.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all.
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### 3. Agreement

You and your partner have just made an agreement, shake hands to seal the deal.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all.
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## Appendix G: Handshaking Scenarios (ii)

### 4. Farewell/Thank you

You and your partner have just finished a conversation and you are shaking hands to say goodbye or to thank him/her.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all
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### Hello

You have just arrived at a meeting and everyone is greeting one another.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all.
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### Ritual

You are shaking hands with your partner prior to an athletic competition, for which you are on opposite sides.

- Close: You have been close friends with your partner for two years.
  - Acquaintance: Your partner is an acquaintance who you've met a few times before, but do not know very well.
  - New: You and your partner are strangers, meeting for the first time.
  - Dislike: You know your partner fairly well, but don't like him/her at all.
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