The Effect of Gaze on Romantic Relationships

By Norman Field

A Thesis submitted to the department of Psychology of The College at Brockport,

State University of New York, in partial fulfillment of the requirements for the degree of Master of Clinical Psychology

May 25, 2016

Dedication

To my wonderful wife who supported me during my long studies and all my family that helped out.

Table of Contents

Title page…….1

Dedication……2

Table of Contents…….3

Abstract……4

Introduction……..5

Method……11

Participants……..11

Materials……..12

Procedure…….14

Design……..17

Results……..17

Discussion……18

References…….24

Tables……...28

Appendices……...31

Abstract

Amount of eye gaze has been correlated with relationship quality in married couples. Also, experimentally manipulated eye gaze has been shown to positively affect evaluations of strangers. The field lacks, however, experimental research on the effect of eye gaze on relationship quality in couples. Here, research entails experimental manipulation of eye gaze in couples. It was hypothesized that eye gazing would lead to an improvement in relationship quality. Participants were 61 couples who had been together for at least one month. Participants engaged in a task of communicating different emotions to their partner, while either looking intently at each other or while being unable to see each other due to wearing glasses that were covered with tape to obstruct vision. After the partner exercise, participants completed a questionnaire about relationship satisfaction, love, passion, and intimacy. No significant improvements in the relationship variables were found, and possible reasons for this outcome are discussed.

The Effect of Gaze on Romantic Relationships

Intimate relationships are fundamentally important to social life. Most people either marry or enter into a relationship at some point during their lives (Bramlett & Mosher, 2002). For many people, this relationship is very important to them, yet 33% of marriages break up within the first ten years (Bramlett & Mosher, 2002). The popularity of self-help books attests to the fact that most individuals want their relationships to last. People also go to marriage counselors for answers, and about 70 to 75% of these relationships do see some improvement through marriage counseling (Snyder & Halford, 2012). Yet, after only two years, 45% see deterioration again (Snyder & Halford, 2012). Therefore, while the field of marriage therapy has made important strides in helping people, there is still room for improvement. Most research in the field of marriage therapy has focused on fixing negative aspects of the relationship instead of enhancing positive aspects (Kauffman & Silberman, 2009). Yet, evidence has shown that a ratio of positive to negative interactions of 5 to 1 predicts marriage stability (Gottman, 2004). Therefore, there is a great need to also research the interactions that can have a positive influence on relationships.

One important interaction is the amount of gaze two people share. Gaze is an important component of our interaction with others. Beginning in infancy, gaze is an important part of how we communicate with caregivers; babies are able to use the informational cues conveyed from the eyes of adults when the actions of the adults are ambiguous (Phillips, Baron-Cohen, & Rutter, 1992). Adults also use gaze to convey important information in social situations. For example, people use mutual gaze to show interest in one another and when they want to get closer to one another, but it is withheld when they want to avoid closeness or show lack of interest (Kleinke, 1986). Therefore, people can use eye contact to tell them whether another person likely wants to be approached or be left alone. Looking at another communicates important information (Mason, Tatkow, & Macrae, 2005). Also, people who use eye contact consistently are viewed as more intelligent than people who avoid eye contact

(Murphy, Hall, & Colvin, 2003). Further, not being looked at by another can have a negative effect. For example, participants who did not get looked at felt excluded, ignored, angry, hurt, sad, and reported lower self-esteem, when compared to the control group who received consistent eye contact (Wirth, Sacco, Hugenberg, & Williams, 2010). So, the time one spends looking at another can have important consequences for how the other feels. Especially in a relationship--how another makes one feel is important.

The amount of time two people look at each other can depend on their relationship to each other. This is why Coutts and Schneider (1976) compared the looking behavior between pairs of friends and pairs of strangers. In this study, gaze was viewed as a sign of intimacy in the relationship. In their study, duration of individual and mutual gaze was larger among friends than among strangers. Likewise, the individual and mutual gaze frequency was higher among friends than among strangers. It makes sense, then, that a high rate of gazing is a sign that the relationship between two people is one where the other person is valued and closeness exists between the pair. Cordell and McGahan (2004) also suggested that the amount of mutual gaze is a sign of the intimacy of a relationship. In their research, they had participants read an article about positive regard and afterwards paired them for discussions with a stranger. They compared the amount of gazing that took place at the beginning and end of an eight-minute discussion. They found that mutual gaze, which they interpreted as a sign of intimacy, was significantly higher at the end of the discussion period. This was thought to be due to getting to know the other person during the course of the discussion.

When seeing a potential romantic partner, eye contact can communicate important information. It is common knowledge that when looking at someone of the opposite-sex, gazing at them repeatedly for a long time is called “flirting” and signals interest. That is probably why, for romantic relationships, we assume that the people who are really in love will also gaze at each other. That people connect long gazing with being in love was shown by Kleinke, Meeker, and La Fong (1974). In their study, actors

who pretended to be engaged were interviewed about their "relationship." These interviews were videotaped and shown to participants who rated the couples on how much they liked each other, how close they were, and how likely they were to have a successful marriage. The couples who spent a lot of time gazing at each other were rated higher than those who avoided looking at each other. So, gaze was viewed by these participants as an important signal of relationship quality (Kleinke et al., 1974).

Several additional studies show the connection between eye gaze and relationship quality. First, Beier and Sternberg (1977) interviewed recently married couples and obtained information about their relationship quality. The video-recorded interviews were then analyzed in relation to the frequency of eye contact, touching, proximity to partner, and talk time. Couples with the least marital discord also had the highest eye contact scores, and those with the most discord had the least eye contact. So, the fact that relationship quality is correlated with higher eye contact may be the reason why participants assumed--in the study by Kleinke et al. (1974)--that the actors who looked at each other more were also the engaged couples that were really in love. In sum, people may assume that relationships where both are in love are the ones where a lot of gazing can be observed. The second study that looked at the importance of gazing in couples was conducted by Rubin (1970). In this study, couples filled out a questionnaire that categorized them as high or low on a love scale. This score was then correlated with their eye gaze. Couples who scored high on the love scale also engaged in more gazing. The most noteworthy difference between low and high scorers was that those in love looked at each other not only more frequently, but also did so at the same time. So, couples who were less in love would not engage as much in mutual gaze (where they looked into each other's eyes at the same time for long periods). Again, this study shows that gaze and in particular, mutual gaze, is an important correlate of relationship quality.

In a study by Goldstein, Kilroy, and van de Voort (1976), couples were scored on a love scale as part of a prescreen, and all of those who scored low were excluded from the study. Then they either

split up the couple and paired each partner with a partner from another high scoring couple or left the couple intact. So all of the participants were high scorers on the love scale, and any differences between the paired strangers were not due to those scoring high on the love scale and possibly better communicators in general. They found that the pairs of lovers talked more to each other than did pairs of strangers and spend more time gazing at each other when in conversation. The largest difference, however, was that lovers gazed eight times as much at each other as the strangers during times when nothing was said.

So far it has been shown that relationship quality and gaze are correlated, but ultimately it is important to figure out whether there is a causal relationship between mutual gaze and relationship quality. In marriage counseling, the therapist looks for ways to improve the relationship of the clients. Finding interventions that can effectively be used to improve a relationship is, therefore, a worthy goal. If gaze is correlated with relationship quality, than looking at how gazing might affect the interaction of people is the next step. Several studies have shown positive effects caused by people looking at each other (Mason et al., 2005; Wirth et al., 2010). As mentioned earlier, Wirth et al. (2010) showed that participants in the experimental group, where eye contact was withheld, had many negative effects compared to the control group were eye contact was provided. Therefore, since the groups were compared to each other, the negative results in the experimental group are also related to the positive effects of the control group of feeling less excluded, ignored, angry, hurt, and sad, and reporting higher self-esteem. These effects resulted from seeing the picture of a stranger on a computer screen for 150 seconds. If the impact of eye contact can have such a quick and powerful impact on likeability with strangers, then it stands to reason that increasing gazing behaviors in couples may also have a powerful effect.

Another reason to believe that gazing would have a positive effect comes from a similar study by Mason et al. (2005). Again, participants were shown people on a computer screen that either

steadily looked at them for two seconds or that looked at them for the first second, but then averted their gaze for the following second. The faces that did not look away were rated more likeable, even though the duration of the averted gaze was only a second. Further, gaze has also been shown to cause participants to rate interviewers who engaged in more eye contact toward them as friendlier and more open compared to participants who rated an interviewer who engaged in less eye contact (Abele, 1986). The question is, how would a couple be affected if one partner either averted or increased eye contact?

Compelling evidence that gaze can cause an increase of affection and liking comes from an experiment where strangers were paired and instructed to gaze at each other (Kellerman, Lewis, & Laird, 1989). The unacquainted opposite-sex (heterosexual) pairs were either instructed to (a) both gaze at each other, (b) only one of the two looking at the eyes of the other, or (c) to both look at the hands of the partner. The pairs who gazed at each other for two minutes rated their partner significantly higher on a liking and passionate love scale. The increase in liking and passionate love may be due to participant's engaging in a condition that is similar to what is experienced during flirting. Many people have experienced the excitement that comes from sharing a look with someone and felt their feelings intensify because of a reciprocated gaze.

No experimental research of increasing gazing in relationships to improve relationship quality was found in the literature. Yet, anecdotal evidence that increasing eye contact can have a powerful effect on couples comes from two interventions used in marriage counseling sessions reported by Solomon and Tatkin (2011). One intervention involves letting the couple throw a ball back and forth. The only task the therapist has is to encourage them to keep the ball in play, while also encouraging them to communicate. The ball throwing forces them to face each other and engage in eye contact playfully. According the anecdotal experience of these clinicians (Solomon & Tatkin, 2011) the playful nature of this intervention is very effective in couples who would normally avoid eye contact, creating a relaxed state that improves communication. Laughter is shared, and couples find it easier to engage in

productive conversation while they connect through eye contact with their partner. The current study attempted to replicate this positive effect of eye contact in a controlled experiment to see whether this effect generalizes to a variety of couples.

The second intervention, reported by Solomon and Tatkin (2011), involves letting the couple put their foreheads together and gaze into each other's eyes. With foreheads touching, the entire visual field is taken up by the eyes and face of the other person. This pose is theorized to have a very stimulating effect on both partners. Partners can feel intimacy, passion, and love during this playful interaction. Further, it is asserted that the intense gazing and the skin touching up-regulate the autonomic nervous system and lead to a positive connection between the partners. Here again, if the intense gazing can lead to partners connecting with each other in a new, meaningful way in some clients in therapy, then verifying this finding through a controlled experiment will advance the science of marriage counseling. In both of these interventions, clients are not told to gaze at each other; it just naturally flows from the interventions. Some people avoid gazing at their partner and do not want to engage in long eye contact. The advantage of having these playful interventions is that they naturally involve gaze without gaze being the focal point. This gets people to engage in a behavior that they normally would avoid. That is why, in this experiment, there was likewise a task that involved gazing, but did not make gazing the part that the participants focus on.

As mentioned, research examining the causal relationship between mutual gaze and how it affects people has all involved strangers. There are several reasons why the effect on partners in a serious relationship may be different. Strangers start with nothing to base their judgment on, so if a variable causes even a small positive effect, then that small effect can by itself dominate their judgment. When looking at relationship quality as a whole with people who have an established relationship, it may be much harder to see a difference. These pairs may be much less likely to be swayed by what happens in the moment. Nevertheless, marriage therapists sometimes want to focus on

positive emotions and bringing about a positive climate to move beyond the couple's grievances and promote openness (Kauffman & Silberman, 2009). Investigating whether intense gaze is an intervention that can bring about a positive change in people is, therefore, important. All of the research that has been done with couples and gaze has been limited to correlational research. Therefore, it is not clear whether satisfied couples merely gaze at each other more, the felt satisfaction causes increasing gaze, or increasing gaze can also affect satisfaction. Therefore, the current study included an intervention where one group gazed at their partner and a control group where they were not able to see each other. To avoid participants knowing what the study was all about and to keep them from confounding the experiment, participants were told that the study was about communication. One participant described various emotions, while their partner needed to guess the emotion. A posttest was used to assess relationship quality, feelings of love, intimacy, and passion. It was hypothesized that experimentally manipulated eye gaze will lead to better relationship satisfaction in couples. It was further hypothesized that experimentally manipulated eye gaze would lead to more feelings of love, intimacy, and passion.

Method

Participants

Sixty-one couples were part of this study. At least one member of the couple, was part of the introductory psychology class at the College at Brockport, and received credit for participating in this study. To participate in the study, the participants needed to be in a relationship. For the purpose of the current research, a relationship was defined as having been together for at least one month. The average length couples were together was 1.92 years, and relationship lengths ranged from 0.08 years to 12.60 years. Both participants in the couple were at least 18 years old, but the exact age of the participants was not collected. There were 60 males and 62 females who participated. One couple was excluded due to being lesbian, since same-sex relationships may be different in terms of relationship variables of

interest. Therefore, the results include data from 60 heterosexual couples only.

Materials

Various sets of questions were used to make up the Relationship Questionnaire (See Appendix A). The questionnaire totaled 44 questions, some about communication and some about relationship satisfaction. The communication questions (questions 1-23) were a distraction to make sure that the participants did not just answer the few questions about how satisfied they are in the relationship and immediately know that the study was about relationship satisfaction. The communication questions were made up by the experimenter and were based on aspects that are important in communication. At the bottom of each page of the questionnaire, the source was cited, mentioning where the questions come from. For the questions that are made up, the citation was simply: Field, N. Measuring Communication, 2014, to make it look like the questions came from official research.

Only questions 24 through 39 were questions that were scored. Questions 24 through 30 were the seven questions that comprise the Relationship Assessment Scale (RAS) designed by Hendrick (1988). The RAS is one of the most widely used assessment tools for relationship quality (Graham, Diebels, & Barnow, 2011). The advantage of the RAS over other measures of relationship quality is that it works well for all kinds of relationships not just for married partners (Graham et al., 2011; Vaughn & Matyastik Baier, 1999). Sample items of the RAS include. “How good is your relationship compared to most?” and “How much do you love your partner?” The seven RAS items are rated on a five-point Likert scale: “not satisfied at all with this aspect” = 1, “to very satisfied” = 5. For this study all seven questions from the RAS were used, but one item was later dropped (as will be explained). Scores on the items ranged from 1 to 5, and the mean of the six remaining questions was computed.

The RAS has been shown to have good psychometric properties, with factor analysis showing it assesses only one factor and that it also correlates with another, frequently used well known

relationship quality assessment tool, the Dyadic Adjustment Scale (DAS; Hendrick, 1988). Hendrick (1988) reported that the Cronbach's α for the RAS was .86. Yet, the DAS is a much longer questionnaire, with 32 rather than 7 questions. Despite its brevity, the RAS is just as good as the DAS in predicting which couples stayed together six months later and which broke up (Hendrick, 1988); specifically, the RAS correctly predicted who stayed together six months later and who broke up 91% of the time (Hendrick, 1988). In further research, Vaughn and Matyastik Baier (1999) also found that the RAS and the DAS are highly correlated (.84), supporting the idea that both measure relationship satisfaction. The RAS has a good consistency over time, which indicates that the RAS is reliable. Specifically, when administered 6-7 weeks apart, the test-retest reliability was .85 (Hendrick, Dicke, & Hendrick, 1998). Having a short questionnaire was important since the goal of the current study was to have mostly communication questions with a few relationship questions in the final questionnaire. The brevity of the relationship measures was probably part of the reason why all the participants were successfully misled. That is why in this study the RAS has been used since. For the present study, the answers to the seven RAS questions were summed and the mean from the seven questions was calculated. In the current study, the alpha coefficient for the RAS was only .60, but excluding the question: "How many problems are there in your relationship?" increased the alpha coefficient to .88. Using only six questions produced more reliable results, so that was done for the current study.

Questions 31 through 39 were taken from the Perceived Relationship Quality Components (PRQC) Inventory created by Fletcher, Simpson, and Thomas (2000). The PRQC has six subscales each assessing a different aspect of relationships. The three subscales that were most applicable to the current study (and not already covered in the RAS) were the subscales that assess love, passion, and intimacy. The correlation among these scales ranges from .22 between passion and love, .55 between passion and intimacy, and .66 between love and intimacy. Despite the correlations, each scale by itself reliably assesses an independent part of relationship quality (Fletcher et al., 2000). Each item is

presented on a seven-point scale where 1 represents "not at all" and 7 represents "extremely" and the scale includes questions like "How intimate is your relationship?" Fletcher et al. (2000) tested this measure with couples who were in long-term relationships and with married couples, but have also shown that this measure is valid when assessing newly formed relationships that are found on college campuses. Fletcher et al. (2000) found the following internal consistencies for the scales that will be used here: Intimacy (α = .86), Passion (α =.86), Love (α =.89). For the present study, the average for each of the three PRQC subscales, as well as their combined average was computed. In the current sample, the alpha coefficient for the Intimacy subscale was .81; for the Passion subscale, the alpha was .80; for the Love subscale, the alpha was .83; and for all PRQ items combined, the alpha was .89.

At the end of the questionnaire, the participants were asked how long they as a couple had been together, their gender, and some questions about how they experienced the experiment (questions 40-44). For example, they were asked how enjoyable the task was and whether they found it annoying. While it was anticipated that participants would enjoy the experiment, it was possible that a few people were annoyed by the task, which would represent a possible confound. If the participants found the task very annoying, it would be less likely that gaze would have a positive effect on the relationship. The last added question is a post-experimental inquiry that asked participants what they thought this study was about.

Procedure

Couples were asked to arrive together at the laboratory on campus to participate in the study. The laboratory was a quiet room where there were few distractions, so participants could focus on one another. Before their arrival, they were randomly assigned to either the experimental or control condition with the flip of a coin. The next couple was placed into the opposite group to ensure an equal number of couples in each condition.

To prevent the couples in the control group from seeing each other, one participant in the couple wore safety glasses with the lenses taped over with duct tape to make it impossible to see. Both groups sat in chairs five feet apart facing each other across a table. The experiment was conducted with the help of three undergraduate research assistants over the course of three semesters. Additionally, six couples were run directly by the primary researcher who is a graduate student.

First, participants were given an informed consent form (see Appendix B), which stated that (a) the purpose of the study was to investigate the effect of communication in couples, (b) they were free to withdraw from the study at any time, and (c) their performances during the experiment would in no way impact them receiving course credit. To ensure confidentiality during the experiment, no names or other identifying information were collected. All information in the study was collected anonymously tied to a number and not any personal identifier. To make sure the data of each couple were grouped together, each couple was assigned a number. For example, couple 1 and then also an additional number of 1 or 2 for person one of the couple or person two of the couple. Only minimal risks and discomforts were expected to arise during this research, and all couples participated in the research to the end. However, since answering some of the questions could arouse negative feelings about the partner, all participants were given a phone number for the on-campus counseling services.

After the consent forms were collected, the couple participated in the partner exercise, which took approximately 24 minutes. The main goal of the exercise was to provide an opportunity for eye contact to happen. The tasks themselves were not considered important for the results of the experiments, but provided a way to occupy the participants so that they were not just staring at each other or did not get bored sitting in the same room without seeing each other (for those couples who wore the glasses). Couples were first asked to memorize this simple statement: “The weatherman said it would rain cats and dogs today.” Next, one of the partners was given a pile of cards containing one emotion each (see Appendix C). The partner with the cards in front of him or her turned the first card

around to see the emotion listed, while saying the statement that was memorized in the beginning in such a way as to convey that emotion. Therefore, the words that were said were always the same, only the way they were being said differed in connotation, speed, and tone to give the listener clues as to what emotion was on the card. Eventually, all 65 emotion cards were portrayed by each member of the couple, at which point the cards were shuffled and again worked through. In order to be successful at figuring out the emotions, participants were required to look at each other to pick up on nonverbal clues. Every four minutes, the participants switched roles, and the person who had been describing the emotions became the listener. For 24 minutes, the partners took turns describing emotions, while their partner guesses the emotion, with them switching roles back and forth every four minutes. So the exercise consisted of each person being the person guessing the emotion three times and portraying them three times. In both the experimental and control condition, the scripts and exercise were identical. The only difference was that the participants are unable to see each other, due to the glasses blocking eye contact in the control group. (See Appendix D for the experimental group and Appendix E for the control group.)

As listeners, participants entered on a keyboard a “1” if they thought they knew what emotion was on the card, a “2” if they could guess but were not sure, and a “3” if they did not know the emotion being portrayed. The answers were not evaluated; this procedure was designed to give participants the idea that the test was about communication. The only variables that were of interest were changes in the couple’s self-reported relationship satisfaction, intimacy, passion, and love obtained at the end of the experiment. Participants then completed the relationship questionnaires out of view of their partners, so as to not influence each other and to provide privacy. Also, they were made aware that no one – not even their partner-- would find out how they answered the questions. After handing in their questionnaire, participants were given course credit, thanked, and debriefed (Appendix F).

Design

The experiment was a between-subjects experimental group design, where one group of couples was exposed to mutual gaze and the other group served as a control group for whom eye contact was prevented.

Results

The average time that the couples had been together was 1.61 years (SD = 1.66) for those who wore glasses in the control group and 2.29 years (SD = 2.89) for those who had eye contact in the experimental group. This difference was not significant. The task was equally enjoyable for both groups and neither group found the task annoying (see Table 1). The range for how enjoyable the task was 1 “a little enjoyable” to 4 “very enjoyable.” The range for how annoying the task was 0 “not at all annoying” to 3 “annoying.”

Due to the distraction with the communication task, most students said that this study was about communication. Despite the fact that 16 out of 44 questions on the questionnaire were on relationship satisfaction or relationship variables like love, intimacy, and passion, no one directly guessed that the main purpose of the experiment was to see whether eye-contact leads to improvement on these variables. A few of those who did not have eye contact in the control group said that this was about the importance of eye-contact in communication. Only one person said something about partner satisfaction; that person said that the purpose of the study was to see “how well you know your partner and the level of satisfaction in your relationship.” This means that the participants did not know the purpose of the study, and the deception of letting them think this was a study about communication was successful.

To test the hypothesis of whether or not the relationship quality significantly improved due to the eye contact, a repeated measures, multivariate analysis of variance (MANOVA) was used to

compare means for the two experimental groups (with and without eye contact). To account for the fact that the data of the couple are not independent, the data of the partner were entered as a repeated measure. In this analysis, the partner's data were treated the same way a before-and-after repeated measure is treated in a MANOVA, which is as another dependent variable. The data of the person who was randomly chosen as the actor first was entered as the before- and the data of their partner as the after repeated measure data. The five dependent variables that were used to compare the control and experimental group are: RAS total score, PRQC total, PRQC love subscale, PRQC passion subscale, and PRQC intimacy subscale. (For means and standard deviations, refer to Table 2.)

The results showed that there were no significant differences between the experimental and control group on any of the studied variables, $F(5,54) = .635$, $p = .67$, $\eta^2 = .06$. Further, using univariate ANOVA tests showed no significant effect of eye contact for any of the dependent variables by themselves. (See Table 3.)

Discussion

There are several possible reasons why there were no significant differences between those who did have eye contact and those who did not. First, one reason for this outcome could be that, in the experimental condition, where participants should have gazed at each other, eye contact actually happened less than anticipated by the researcher. The task of explaining and guessing may have been distracting participants from looking into each others' eyes. If participants did not look at each other enough, then the experiment of course could not have worked. While running the experiment, participants looked (a) around the room, (b) at the card that told them what emotion to describe, (c) at other parts of the face besides the eyes for clues, (d) and at the keyboard more than anticipated. In particular, the person acting out the emotion seemed too focused on the task to hold eye contact with his or her partner the majority of the time. A task that enforced stricter eye contact may have been more successful in creating longer mutual gaze. According to Kellerman et al. (1989), this mutual gaze is

what really produces the greatest improvement in liking, passion, and love for strangers paired together. In their study, they instructed people to either continuously hold eye contact, look at each other's hands, or have only one participant look at the face of the other; the pairs who gazed at each other for two minutes rated their partner significantly higher on a liking and passionate love scale (Kellerman et al.,1989). The increase in liking and passionate love may be due to participants engaging in a condition that is similar to what is experienced during flirting. Yet, designing a task that would enforce this kind of stricter eye contact and leaving the participants in the dark about the purpose of the experiment would have been hard to achieve. Rather, in this experiment the participants were successfully lead to believe that we were interested in communication, so response bias was thereby reduced. Unfortunately, this may have come at the cost of having a task where eye contact happens less often than was needed to produce significant results.

Second, another hindrance in finding differences may have been that this task was not done with strangers where both people build a relationship in a few minutes and positive feelings are not existent in the beginning of the experiment. Therefore, having one good experience with a stranger defines entirely how one would evaluate that person since that one experience is all that is known. This is not what happened in this experiment. Presumably, people in both groups had lots of experiences to look back on to define their love, passion, intimacy, and relationship satisfaction. Therefore, unlike those who did participate in an experiment with a stranger, people in both groups could look back at all the other experiences they have had with their partner and rate them still favorably even if they were in the control condition (which itself may not have produced any improvement).

Third, all people in both groups rated their partner very favorably, creating a potential ceiling effect (PRQC total: M= 6.09 on a scale of 1 to 7 and RAS: M= 4.46 on a scale of 1 to 5). This makes sense, because people in unhappy relationships can just break up. In general, partners usually rate each other very well on the relationship variables of satisfaction, love, passion, and intimacy, which is in

part due to people idealizing their partners and viewing them in an unrealistically overly positive way (Gordon & Baucom, 2009). So, it may be that people who are together rate their partner usually very highly and often even give each other the top marks on relationship scales. For example, on the RAS, which is a five-point scale, the average score that people gave each other was 4.34 in Hendrick's (1988) research. In the study by Fletcher et al. (2000), the following means were observed Intimacy (M = 5.35), Passion (M = 5.14), Love (M = 4.97). The means in the current study were even higher (PRQC total: M= 6.09 on a scale of 1 to 7 and RAS: M= 4.46 on a scale of 1 to 5). This may be the sign that there was a ceiling effect, whereby couples already liked each other so much that there was not much room for improvement. Therefore, it may be beneficial to repeat this experiment with people who are in marriage therapy and presumably view their partners less positively.

One of the reasons why eye contact was thought to be effective in improving relationship variables is that it increases arousal (Kleinke, 1986). The intimacy-arousal model states that if one person increases his or her intimate behavior, the partner will respond with physiological arousal. If the resulting arousal is labeled as positive, the partner will reciprocate and increase intimacy through his or her behaviors (Kleinke, 1986). In relation to this, Williams and Kleinke (1993) found that gaze positively influenced participants' mood and willingness to be paired in the future with the same stranger that was their experiential partner. Arousal caused by gaze is hypothesized as the mediator of these effects. Accordingly, participants who were in the high gazing condition had higher blood pressure (Williams & Kleinke 1993). Other forms of arousal have also been found to be caused by gaze. Studies have found signs of arousal through an increase of heart rate (Coutts, Schneider, & Montgomery, 1980; Kleinke & Pohlen, 1971), electroencephalogram (EEC) recordings (Kleinke, 1986), and galvanic skin responses (Kleinke, 1986). Therefore, if arousal is the medium that leads eye contact to have a positive effect, then finding a significant difference between those who wore glasses and those who did not is only possible if the control group is not equally arousing. Unfortunately, there

are other reasons why participants can feel arousal besides eye contact.

That various tasks can lead to arousal and to evaluate others positively has been shown in three interesting studies. The first looked at participants who had just been on an arousing roller-coaster ride and compared their responses with others that were waiting in line to get on the ride (Meston & Frohlich, 2003). The participants in their study who had just gotten off the ride (and were therefore likely to be more aroused) rated people in pictures as more attractive and more "datable," than those who were standing in line and rated the same people. In the second study, participants either listened to a comedy tape, a negative arousal tape (mutilation tape), a (non-arousing) textbook tape, or ran in place for two minutes to get aroused (White, Fishbein, & Rutsein, 1981). Both of the arousing tapes (comedy and mutilation), as well as the arousing exercise, caused participants to rate an attractive confederate as even more attractive (White et al., 1981). Lastly, in a study by Dutton and Aron (1974), participants filled out a questionnaire containing the Thematic Apperception Test (TAT) in the middle of a bridge. The independent variable was the kind of bridge, which was either a fear-arousing, swaying suspension bridge or a bridge that didn't sway, was wider, and was stable. Participants put more sexual content into their TAT questionnaires and were more likely to attempt post-experimental contact with the opposite-sex interviewer more often presumably due to their arousal on the fear-arousing bridge compared to the stable bridge.

Finally, in another experiment, randomly paired partners who participated in an arousing and novel task found their partners more attractive than those who just participated in a task that was not arousing, but mundane (Lewandowski & Aron, 2004). So, one possibility is that rather than just the eye contact leading to arousal, those in the control condition may have felt high arousal due to participating in an arousing activity--wearing novel glasses. In other words, arousal may have been high in one group due to eye contact and in the other due to the arousing activity and novel glasses. Aron, Aron, Norman, McKenna, and Heyman (2000) had couples perform a task that was either working

cooperatively together on a gym mat in a simple or a more novel and arousing way that included them being tied together and having to balance a pillow between them. Those in the novel and arousing task showed greater relationship satisfaction at the end (Aron et al., 2000). The mundane task was similar to the novel and exciting task, but did not include performing the task while being tied together and balancing something between the couple. Having to perform the task while being tied and balancing a pillow turned the task into something both participants found novel and more challenging (Aron et al., 2000).

Likewise, in the current experiment, both groups were participating in similar tasks, but the one with the glasses was more novel and arousing. In the experimental condition, the task was similar to what people may have experienced when playing a party game that asks people to portray different emotions or in a communication exercise. Also, trying to guess emotions or thoughts from a partner when they are using words that do not reflect what they want to say--for example when they are being sarcastic or are telling a joke--is a common experience. On the other hand, in the current study, the control group participants were asked to guess an emotion from their partners while their eyes, their eyebrows, and part of the cheeks were covered. Likewise, the actor of the emotion had to wear glasses that made him or her practically blind. This left that person unable to receive any visual feedback on his or her performance. Likewise, it is possible that the couples in the control group felt more aroused by the greater challenge and uncertainty of doing this exercise blindly due to wearing the glasses. Therefore, it is possible that those who were in the control group found the task more novel than those in the experimental group. Thus, it is possible that both groups improved on the relationship variables, but for different reasons: The experimental group improved due to eye contact, and the control group improved due to the task being more novel and arousing. For future research it would be wise to have another group, to serve as an additional control group that comes to the laboratory without participating in any activity. As long as the participants in this additional group would do something that cannot be

arousing, this group could uncover if the other two groups improved due to arousal or if neither group improved.

Fourth and finally, it is possible that eye contact did not have an effect—that neither group improved. The reason why eye contact may not have had an effect may be that the conditions were not ideal. First, it could be that the couple sat too far apart. In the current study, the participants sat five feet apart. That distance may be too far away to cause significant arousal and a positive effect. Second, according to Kleinke (1986), an increase of intimacy may be more likely when the experiment is unstructured and nonevaluative. This experiment was structured, with rules the participants had to follow. Also, at least to the participants, their answers were recorded and could possibly be evaluated by the experimenter. The participants were being told in the instructions that they should not worry about their performance. Nevertheless, they may still have felt some stress due to having to explain and guess different emotions, not only in front of their partner, but also in front of the research assistant.

Of course, as mentioned before, the experimental studies where eye contact did have a significant effect all included participants who did not know each other. For partners who have looked often into each other's eyes, the effect of looking into each others' faces one more time during our experiment may either have had no effect or only a minor effect that was not detected. Nevertheless, if eye contact has at least a small effect that just was not detected, eye contact could still have clinical value. If there is a small effect, it is possible that repeated exercises that include eye contact for extended time might have a cumulative significant effect. These repeated exercises of eye contact could happen during marital therapy sessions or could be assigned as homework for couples.

References

Abele, A. (1986). Functions of gaze in social interaction: Communication and monitoring. *Journal of Nonverbal Behavior, 10*(2), 83-101. doi:10.1007/BF01000006

Aron, A., Aron, E. N., Norman, C. C., McKenna, C., & Heyman, R. E. (2000). Couples' Shared Participation in Novel and Arousing Activities and Experienced Relationship Quality. *Journal of Personality & Social Psychology, 78*(2), 273-284. doi:10.1037//0022-3514.78.2.273

Beier, E. G., & Sternberg, D. P. (1977). Marital communication. *Journal of Communication, 27*(3), 92-97. doi:10.1111/j.1460-2466.1977.tb02131.x

Bramlett, M., & Mosher, W. DEPARTMENT OF HEALTH AND HUMAN SERVICES, Centers for Disease Control and Prevention National Center for Health Statistics. (2002). *Cohabitation,marriage,divorce, and remarriage in the united states* (Vital and health statistics. Series. 23, Data from the national survey of family growth; no 22). Retrieved from DHHS website: http://www.cdc.gov/nchs/data/series/sr_23/sr23_022.pdf

Cordell, D. M., & McGahan, J. R. (2004). Mutual gaze duration as a function of length of conversation in male-female dyads. *Psychological Reports, 94*(1), 109-114. doi:10.2466/PR0.94.1.109-114

Coutts, L. M., Schneider, F. W., & Montgomery, S. (1980). An investigation of the arousal model of interpersonal intimacy. *Journal of Experimental Social Psychology, 16*(6), 545-561. doi:10.1016/0022-1031(80)90057-8

Coutts, L. M., & Schneider, F. W. (1976). Affiliative conflict theory: An investigation of the intimacy equilibrium and compensation hypothesis. *Journal of Personality And Social Psychology, 34*(6), 1135-1142. doi:10.1037/0022-3514.34.6.1135

Dutton, D. G., & Aron, A. P. (1974). Some evidence for heightened sexual attraction under conditions of high anxiety. *Journal Of Personality And Social Psychology, 30*(4), 510-517. doi:10.1037/h0037031

Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin, 26*, 340-354.

Gottman, J.M. (2004). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Erlbaum.

Goldstein, M. A., Kilroy, M., & van de Voort, D. (1976). Gaze as a function of conversation and degree of love. *Journal of Psychology, 92*(2), 227.

Gordon, C. L., & Baucom, D. H. (2009). Examining the individual within marriage: Personal strengths and relationship satisfaction. Personal Relationships, 16(3), 421-435.

Graham, J. M., Diebels, K. J., & Barnow, Z. B. (2011). The reliability of relationship satisfaction: A re liability generalization meta-analysis. *Journal Of Family Psychology, 25*(1), 39-48. doi:10.1037/a0022441

Hendrick, S. S., Dicke, A., & Hendrick, C. (1998). The Relationship Assessment Scale. *Journal of Social and Personal Relationships, 15*(1), 137-142. doi:10.1177/0265407598151009

Hendrick, S. S. (1988). A Generic Measure of Relationship Satisfaction. *Journal of Marriage and Family, 50*(1), 93.

Lewandowski, G. J., & Aron, A. P. (2004). Distinguishing arousal from novelty and challenge in initial romantic attraction between strangers. *Social Behavior And Personality, 32*(4), 361-372. doi:10.2224/sbp.2004.32.4.361

Kauffman, C., & Silberman, J. (2009). Finding and fostering the positive in relationships: positive interventions in couples therapy. *Journal of Clinical Psychology, 65*(5), 520-531.

Kellerman, J., Lewis, J., & Laird, J. D. (1989). Looking and loving: The effects of mutual gaze on feelings of romantic love. *Journal of Research in Personality, 23*(2), 145-161. doi:10.1016/0092-6566(89)90020-2

Kleinke, C. L. (1986). Gaze and eye contact: A research review. *Psychological Bulletin, 100*(1), 78-

100. doi:10.1037/0033-2909.100.1.78

Kleinke, C. L., Meeker, F. B., & La Fong, C. (1974). Effects of gaze, touch, and use of name on evaluation of engaged couples. *Journal of Research in Personality, 7*(4), 368-373. doi:10.1016/0092-6566(74)90058-0

Kleinke, C. L., & Pohlen, P. D. (1971). Affective and emotional responses as a function of other person's gaze and cooperativeness in a two-person game. *Journal of Personality and Social Psychology, 17*(3), 308-313. doi:10.1037/h0030600

Mason, M. F., Tatkow, E. P., & Macrae, C. (2005). The Look of Love. *Psychological Science, 16*(3), 236-239. doi:10.1111/j.0956-7976.2005.00809.x

Meston, C. M., & Frohlich, P. F. (2003). Love at first fright: Partner salience moderates roller-coaster-induced excitation transfer. *Archives of Sexual Behavior, 32*(6), 537-544. doi:10.1023/A:1026037527455

Murphy, N. A., Hall, J. A., & Colvin, C. (2003). Accurate Intelligence Assessments in Social Interactions: Mediators and Gender Effects. *Journal of Personality, 71*(3), 465-493. doi:10.1111/1467-6494.7103008

Phillips, W., Baron-Cohen, S., & Rutter, M. (1992). The role of eye contact in goal detection: Evidence from normal infants and children with autism or mental handicap. *Development and Psychopathology, 4*(3), 375-383. doi:10.1017/S0954579400000845

Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology, 16*(2), 265-273. doi:10.1037/h0029841

Snyder, D. K., & Halford, W. (2012). Evidence-based couple therapy: current status and future directions. *Journal of Family Therapy, 34*(3), 229-249. doi:10.1111/j.1467-6427.2012.00599.x

Solomon, M., & Tatkin, S. (2011). *Love and war in intimate relationships: Connection, disconnection, and mutual regulation in couple therapy*. New York, NY: W W Norton & Co.

Vaughn, M. J., & Matyastik Baier, M. E. (1999). Reliability and validity of the Relationship

Assessment Scale. *American Journal of Family Therapy, 27*(2), 137-147. doi:10.1080/019261899262023

White, G. L., Fishbein, S., & Rutsein, J. (1981). Passionate love and the misattribution of arousal. *Journal of Personality and Social Psychology*, *41*(1), 56-62. doi:10.1037/0022-3514.41.1.56

Williams, G. P., & Kleinke, C. L. (1993). Effects of mutual gaze and touch on attraction, mood, and cardiovascular reactivity. *Journal of Research In Personality, 27*(2), 170-183. doi:10.1006/jrpe.1993.1012

Wirth, J. H., Sacco, D. F., Hugenberg, K., & Williams, K. D. (2010). Eye gaze as relational evaluation: Averted eye gaze leads to feelings of ostracism and relational devaluation. *Personality and Social Psychology Bulletin*, *36*(7), 869-882. doi:10.1177/0146167210370032

Tables

Table 1:

	Experimental Condition: Participant wearing glasses M (SD)	Participants with eye contact M (SD)
Enjoyment of task	2.87 (.81)	2.85 (.83)
Annoyed by task	1.08 (.89)	1.06 (.99)

Table 2:

	Experimental Condition:	
	Participant wearing glasses M (SD)	Participant with eye contact M (SD)
Relationship Questionnaire:		
RAS	4.48 (.51)[n.s.]	4.44(.59) [n.s.]
PRQC total	6.04 (.85)[n.s.]	6.13(.79) [n.s.]
Love PRQC subscale	6.53 (.75)[n.s.]	6.54 (.72) [n.s.]
Passion PRQC subscale	5.52 (1.16)[n.s.]	5.62 (1.13) [n.s.]
Intimacy PRQC subscale	6.06 (.96)[n.s.]	6.21 (.87) [n.s.]

There were 60 couples and 30 in each condition.
n.s.= not significant

Table 3:

	$F(1, 59)$	p	η^2
Relationship Questionnaire:			
RAS	.02	.89	.00
PRQC total	.01	.94	.00
Love PRQC subscale	.23	.64	.00
Passion PRQC subscale	.14	.71	.00
Intimacy PRQC subscale	.49	.49	.01

Appendix A

Relationship Questionnaire: Please answer all of the following questions to the best of your ability.

How true are the following statements about you and your partner?

Scale: (Never true=0, seldom true=1, sometimes true=2, usually true=3, almost always true=4)

never true seldom true sometimes true usually true almost always true

0 . . . . . 1 . . . . . 2 . . . . . 3 4

	Circle one
1. Your partner listens to you.	**never true** 0 1 2 3 4 **almost always true**
2. Your partner lets you talk without interrupting.	0 1 2 3 4
3. You let your partner talk without interrupting.	**never true** 0 1 2 3 4 **almost always true**
4. You have a tendency to keep your feelings to yourself.	0 1 2 3 4
5. Your partner understands how you feel.	**never true** 0 1 2 3 4 **almost always true**
6. You understand how your partner is feeling.	0 1 2 3 4
7. Your partner is taking your opinion into account.	**never true** 0 1 2 3 4 **almost always true**
8. You take your partner's opinion into account.	0 1 2 3 4
9. It is easy to understand what my partner means.	**never true** 0 1 2 3 4 **almost always true**
10. You discuss interests with your partner.	0 1 2 3 4
11. It is easy to share my feelings with my partner.	**never true** 0 1 2 3 4 **almost always true**
12. When you have a problem you discuss it with your partner.	0 1 2 3 4
13. When your partner has a problem they discuss it with you.	**never true** 0 1 2 3 4 **almost always true**
14. You sometimes tune out when your partner is talking.	0 1 2 3 4
15. Your partner is tuning out sometimes when you are talking.	**never true** 0 1 2 3 4 **almost always true**
16. It is easy to tell your partner secrets.	0 1 2 3 4
17. Your partner tells you secrets.	**never true** 0 1 2 3 4 **almost always true**
18. You feel like you understand your partner without words.	0 1 2 3 4
19. Without asking you can pick up on your partner's mood.	**never true** 0 1 2 3 4 **almost always true**
20. You are good at empathizing with your partner.	0 1 2 3 4

Source: Field, N.: Measuring Communication, 2014

How true are the following statements about you and your partner?

Scale: (Never true=0, seldom true=1, sometimes true=2, usually true=3, almost always true=4)

never true seldom true sometimes true usually true almost always true

0 . . . . . 1 . . . . . 2 . . . . . 3 4

	Circle one				
21. When your partner has a word on the tip of their tongue are you able to guess it correctly.	**never true** 0	1	2	3	4 **almost always true**
22. You can gain important information about your partner's feelings from the tone of their voice.	**never true** 0	1	2	3	4 **almost always true**
23. You can look at your partner and know their feelings	**never true** 0	1	2	3	4 **almost always true**

Source: Field, N.: Measuring Communication, 2014

24. How well does your partner meet your needs? **Circle one**

Poorly 1 2 3 4 5 Extremely well

---

25. In general, how satisfied are you with your relationship?

Unsatisfied 1 2 3 4 5 Extremely satisfied

---

26. How good is your relationship compared to most?

Poor 1 2 3 4 5 Excellent

---

27. How often do you wish you hadn't gotten into this relationship?

Never 1 2 3 4 5 Very often

---

28. To what extent has your relationship met your original expectations?

Hardly at all 1 2 3 4 5 Completely

---

29. How much do you love your partner?

Not much 1 2 3 4 5 Very much

---

30. How many problems are there in your relationship?

Very few 1 2 3 4 5 Very many

Source: Hendrick, S.S.: A Generic Measure of Relationship Satisfaction, 1988

Please think about your current relationship and tell us how much you agree with each of the statements below. Use the following scale:

1 . . . . . 2 . . . . . 3 . . . . . 4 . . . . . 5 . . . . . 6 7
not at all extremely

	Circle one
31. How intimate is your relationship?	Not at all 1 2 3 4 5 6 7 extremely
32. How passionate is your relationship?	Not at all 1 2 3 4 5 6 7 extremely
33. How connected are you to your partner?	Not at all 1 2 3 4 5 6 7 extremely
34. How close is your relationship?	Not at all 1 2 3 4 5 6 7 extremely
35. How lustful is your relationship?	Not at all 1 2 3 4 5 6 7 extremely
36. How much do you adore your partner?	Not at all 1 2 3 4 5 6 7 extremely
37. How much do you love your partner?	Not at all 1 2 3 4 5 6 7 extremely
38. How sexually intense is your relationship?	Not at all 1 2 3 4 5 6 7 extremely
39. How much do you cherish your partner?	Not at all 1 2 3 4 5 6 7 extremely

Source: Fletcher, G. J. O., Simpson, J. A., Thomas, G.: The measurement of perceived relationship quality components: A confirmatory factor analytic approach 2000.

40. How long have you been together with your partner? (Answer to the best of your ability and guess if necessary for month or days) _____ years _____ months _____ days

41. What is your Gender? (Check one box) ☐ Male ☐ Female

42. ____ How enjoyable was the task? (0 = not enjoyable at all, 1 = a little enjoyable, 2 = somewhat, enjoyable, 3 = enjoyable, 4 = very enjoyable)

43. ____ How annoying was the task? (0 = not at all annoying, 1 = a little annoying, 2 = somewhat, annoying, 3 = annoying, 4 = very annoying).

44. What do you think this study was about?

_____
_____
_____
_____
_____

Source: Field, N.: Measuring Communication, 2014

Appendix B

STATEMENT OF INFORMED CONSENT

The purpose of this research study is to examine the effect of verbal and nonverbal communication tasks on participants. If you choose to participate in this study, you will go through a series of 3 short communication tasks. You will also fill out one questionnaire at the end and it is expected that filling out the questionnaires and the entire study is going to take about 35-40 minutes. This research project is being conducted by Dr. Kelly Brennan-Jones and Norman Field in the Psychology Department at the College at Brockport State University of New York. This study is a requirement for Norman Field to obtain his Master's degree in psychology.

In order to participate in this study, your informed consent is required. You are being asked to make a decision whether or not to participate in the project. If you want to participate in the project, and agree with the statements below, please sign your name in the space provided at the bottom. You may leave the study without penalty, including once the study has begun.

I understand that:

1. My participation is voluntary and I have the right to refuse to answer any questions.

2. My confidentiality will be protected. My name will not be written on the survey. Upon completion of this study, I will be asked to add my name to an attendance list. This list will be kept entirely separate from all answers made on the questionnaire and will not be connect to the attendance sheet. This protects me from being identified by name.

3. Personal risks involved in this project are a certain amount of emotional ambiguity or

discomfort may result due to the sensitivity of the topic and answering some questions of a personal nature. Further, I understand that it is possible that discomfort will be felt during some exercises that may require me to wear glasses were the lenses are taped with duct tape and do not allow me to see while sitting down to participate in communication exercises. Should any discomfort arise due to the nature of this study I understand that I could contact a mental health professional at the Counseling Services at the College at Brockport at 585-395-2207. This Counseling center offers services to students free of charge.

4. Potential benefits to this study are learning new information that might result in the betterment of your personal relationship with your partner.

5. A maximum of 60 couples will take part in this study.

6. My responses will not be connected to my name, because the signed consent form will be kept separate from my responses, which are anonymous. The attendance and sign-up sheets can also not be connected to your responses. Answers will be completely confidential, even your partner will not know your answers. So your confidentiality will be protected, but it cannot be guaranteed. All forms will be kept in separate locked drawers until they will be shredded once the data collection stage is completed.

7. For my participation, I will receive research credit for my introductory psychology class. The terms of receiving research credit (e.g., required analysis) may vary from professor to professor.

I am 18 years of age or older. I have read and understand the above statements. All of my questions regarding my participation in this study have been answered to my satisfaction. I agree to participate in

the study realizing I may withdraw without penalty at any time during the study.

If you have any further questions you may contact us in the Psychology Department:

Primary researcher:

Norman Field

Email: nfiel3@u.brockport.edu

Phone: (585) 831-9764

Faculty Advisor:

Kelly Brennan-Jones

Email: kbrennan@brockport.edu

Phone : (585) 395-5553

_____ _____

Participant Signature Date

Appendix C

List of emotions on the cards:

-acceptance
- admiration
-affection
-aggravation
-anger
-anguish
-anxiety
-attraction
-boredom
-caution
-certainty
-compassion
-confidence
-confusion
-courage
-curiosity
-defeat
-delight
-dependence
-depression
-desire
-disappointment
-dislike
-distress
-embarrassment
-envy
-excitement
-fear
-frustration
-fury
-generosity
-greed
-grief
-guilt
-hate
-hope
-horror
-hostility
-impatience
-jealousy
-joy
-kindness
-loneliness
-longing
-love
-lust
-misery
-optimism
-panic
-patience
-pessimism
-pity
-pleasure
-pride
-rage
-relief
-sadness
-satisfaction
-scorn
-shame
-sorrow
-sympathy
-terror
-wonder
-wrath.

Appendix D

Experiment instructions for the experimental condition:

"We will now begin the first stage of the experiment. Please sit at the table in the chairs across from each other. In this part of the experiment there will be one person who is the actor and the other who is the guesser. The actor will get a pile of cards and each card has one emotion on it. It will be the actor's job to say the memorized words "The weatherman said it would rain cats and dogs today" word for word, but convey the emotion on the card. So, if the actor draws the emotion "happy", the actor is not allowed to change the words to "I'm glad that the weatherman said it would rain cats and dogs today". However, the actor is allowed to vary their tone and facial expressions to help the guesser see what the emotion may be on the card. Further, the actor is not allowed to use their hands during the process, therefore they have to sit on them. The guesser will try to figure out what emotion is portrayed by the actor. After the actor has said the memorized statement for the first time, the guesser will enter the number 1 on the keyboard if they are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if they are not sure but would be willing to make a guess, and 3 if they don't feel like they know what emotion is being portrayed. The guesser is not allowed to say any words or give any feedback to the actor. For example, please don't say "I got it, aha, or good job". The actor should allow for a brief pause to allow the guesser time to enter a number on the keyboard. Next the actor will say the statement a second time and the guesser will again either press the number 1 if they are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if they are not sure but would be willing to make a guess, and 3 if they don't feel like they know what emotion is being portrayed. The second time the actor can either try to convey the emotion in exactly the same way as the first time or with a little different tone and facial expression. After the actor has said the statement for the second time they will flip over the next card and again say what is on that card two times with a brief pause in between to allow time for the guesser

to enter the number. After 4 minutes the roles will switch and the actor will become the guesser for 4 minutes. Each person will be the actor 3 times and 3 times the guesser. We will flip a coin to determine who will first be the actor. (Researcher flips coin). Actor now please look at the first card and then sit on your hands to make sure they are not being used until you look at the next card. In case you do not know an emotion skip it, but please don't skip emotions because you don't want to portray them or because they are difficult to portray"

Then start the stop watch for 4 minutes.

<u>The researcher will use a stop watch and after 4 minutes the researcher will say:</u>

"Thanks. Now switch roles the person that was the actor will now become the guesser. And the guesser will become the actor. Please switch the pile of cards and keyboard around. So that the new actor has the cards and the new guesser has the keyboard" Once the actor has looked at the first card start the timer for 4 minutes again.

<u>What the researcher will say during the experiment:</u>

If hands are used: "Please don't use your hands in the process."

If someone alters the words of the statement: "Please say the statement exactly word for word. It is: "the weatherman said it would rain cats and dogs today"

Laughter is going to be allowed, but if the guesser is giving feedback to the actor like "I got it, aha, huh, mhh, or good job" the researcher will say: "please don't give any feedback on the actor's performance"

If the guesser asks what number they should enter: "Press the number 1 if you are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if you are not sure

but would be willing to make a guess, and 3 if you don't feel like they know what emotion is being portrayed."

If the actor is skipping two cards in a row: "Please don't skip emotions because you don't want to portray them or because they are difficult to portray, only skip a card if you don't know the emotion at all"

If the guesser wants to go back and change a current answer: "You can hit the back space button once and then enter the new number."

If the guesser wants to go back and change a previous answer: "Sorry, you are not allowed to go back to previous answers to change them."

Appendix E

Experiment instructions for the control condition:

"We will now begin the first stage of the experiment. Please sit at the table in the chairs across from each other. In this part of the experiment there will be one person who is the actor and the other who is the guesser. The actor will get a pile of cards and each card has one emotion on it. It will be the actor's job to say the memorized words "The weatherman said it would rain cats and dogs today" word for word, but convey the emotion on the card. So, if the actor draws the emotion "happy", the actor is not allowed to change the words to "I'm glad that the weatherman said it would rain cats and dogs today". However, the actor is allowed to vary their tone and facial expressions to help the guesser understand what the emotion may be on the card. Further, the actor is not allowed to use their hands during the process, therefore they have to sit on them. The guesser will try to figure out what emotion is portrayed by the actor. After the actor has said the memorized statement for the first time, the guesser will enter the number 1 on the keyboard if they are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if they are not sure but would be willing to make a guess, and 3 if they don't feel like they know what emotion is being portrayed. The guesser is not allowed to say any words or give any feedback to the actor. For example, please don't say "I got it, aha, or good job". The actor should allow for a brief pause to allow the guesser time to enter a number on the keyboard. Next the actor will say the statement a second time and the guesser will again either press the number 1 if they are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if they are not sure but would be willing to make a guess, and 3 if they don't feel like they know what emotion is being portrayed. The second time the actor can either try to convey the emotion in exactly the same way as the first time or with a little different tone and facial expression. After the actor has said the statement for the second time they will

flip over the next card and again say what is on that card two times with a brief pause in between to allow time for the guesser to enter the number. After 4 minutes the roles will switch and the actor will become the guesser for 4 minutes. Each person will be the actor 3 times and 3 times the guesser. Also, during the time a person is the actor they will be wearing these taped glasses. These glasses will not allow them to see their partner. The actor is only allowed to lift the glasses when they are looking at a new card. After they have seen the emotion on the card they will put the glasses back on and say their statement. We will flip a coin to determine who will first be the actor. (Researcher flips coin). Actor now please look at the first card and then sit on your hands to make sure they are not being used until you look at the next card. In case you do not know an emotion skip it, but please don't skip emotions because you don't want to portray them or because they are difficult to portray"

Then start the stop watch for 4 minutes.

<u>The researcher will use a stop watch and after 4 minutes the researcher will say:</u>

"Thanks. Now switch roles the person that was the actor will now become the guesser. And the guesser will become the actor. Please switch the pile of cards, glasses and keyboard around. So that the new actor has the cards and glasses, while the new guesser has the keyboard" Once the actor has looked at the first card start the timer for 4 minutes again.

<u>What the researcher will say during the experiment:</u>

If hands are used: "Please don't use your hands in the process."

If someone alters the words of the statement: "Please say the statement exactly word for word. It is: "the weatherman said it would rain cats and dogs today"

Laughter is going to be allowed, but if the guesser is giving feedback to the actor like "I got it, aha, huh, mhh, or good job" the researcher will say: "please don't give any feedback on the actor's performance"

If the guesser asks what number they should enter: “Press the number 1 if you are at least 90% sure that they know the emotion on the card or an emotion that is very similar, the number 2 if you are not sure but would be willing to make a guess, and 3 if you don’t feel like they know what emotion is being portrayed.”

If the glasses are lifted besides looking at the next card: “Please, keep the glasses on during the whole time that you are the actor and lift them only briefly to look at the next card.”

If the glasses are lifted while looking at the next card not only to look at the card, but also to establish eye contact with their partner: “Please don’t make eye contact with your partner during the whole time that you are the actor and lift the glasses only briefly to look at the next card.”

If the actor is skipping two cards in a row: “Please don’t skip emotions because you don’t want to portray them or because they are difficult to portray, only skip a card if you don’t know the emotion at all”

If the guesser wants to go back and change a current answer: “You can hit the back space button once and then enter the new number.”

If the guesser wants to go back and change a previous answer: “Sorry, you are not allowed to go back to previous answers to change them.”

Appendix F

Debriefing Form

Investigator: Norman Field Graduate Student, Department of Psychology, College at Brockport SUNY

Thank you for participating in the study. If you have any more questions about your participation or about any other aspect of this study, please feel free to contact the investigator, Norman Field, via email at normanfi@hotmail.com or through the phone 585-831-9764. You can also contact the IRB Department at 585-395-2779. Finally, if you are experiencing distress as a result of participating in this study and would like to talk to a mental health professional, please contact the Counseling Services at the Brockport College at 585-395-2207. The Counseling center offers services to students and their partners free of charge.