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The Art of Caring: Increasing Empathy Through Conversation

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Abstract

In our every day lives we use empathy more than we would assume, however a current empathy deficit has led us to wonder how we can increase our empathy. The present study aimed to find a way to increase one's empathy, specifically through an emotional conversation with another individual. There were 61 participants who were separated into either an emotional or factual conversation group. They first took surveys including the IRI, closeness questions, and the pre Revised Eyes Test and then engaged in conversation with another participant. They then took a post Revised Eyes Test after their conversation. The results showed that while the emotional conversation group did not increase in empathy more than the factual group, all the participants in both groups significantly increased in empathy after their conversation. The present study supports the power of conversation on increasing empathy.

The Art of Caring: Increasing Empathy Through Conversation

Within every conversation, a form of empathy is being used to interpret the person's subtle cues, intentions, and emotions (Nishida, 2012). Despite this innate capability, there seems to be a lack of empathy in our society in this day and age; according to Schumann, Zaki, and Dweck (2014) we've reached a time in American history where there is an empathy deficit that is changing our culture's ability to see another's perspective. While empathy has always been a common topic of study in the psychological world due to its innate presence in humans, not many researchers have explored ways in which to increase empathy in individuals. Due to this current empathy deficit, increasing empathy would be particularly useful to society. This study aims to discover the power of empathy and its relationship to conversation. Before we can understand their relationship, it is important to understand how empathy is defined.

Empathy: Definitions and Theoretical Considerations

Empathy has a variety of definitions. For the purposes of this study, the definition utilized is the ability to form a representation of another's mental state (Asada, 2015). Jean Knox (2013) describes empathy simply as "the capacity to put ourselves into someone else's shoes" (p. 493). Empathy is often confused with other similar terms, such as sympathy or compassion. However, distinguishing between the three is important for the overall understanding of the usage of empathy. Both sympathy and compassion are derivative of the ability to "feel for" another person (Knox, 2013), but are distinct constructs compared to empathy. However, sympathy is the awareness of another person's emotional state whereas empathy is self-awareness in relation to the other person's emotional state (Wispé, 1986). For example, sympathy would be understanding that another person is sad whereas empathy would be understanding what that person's sadness must feel like to them. Sympathy has been described more as an emotional

response of sorrow or concern; empathy as a feeling of comprehension of the another's feelings (Eisenberg, Wentzel, & Harris, 1998). Wispé (1986) also states that sympathy places the importance of the other's well-being at the core, knowing that the person is not our self. Empathy allows us to put our self in the place of another (Wispé, 1986).

While sympathy and empathy both help with the understanding of another person, compassion can be utilized as well. After the understanding is formed, whether through empathy or sympathy, a desire to take action arises; that action is compassion (Goetz, Keltner, & Simon-Thomas, 2010). The overarching concept in all definitions of compassion is the desire to help (Goetz, Keltner, & Simon-Thomas, 2010). Paul Gilbert (2011) adds that compassion can be directed towards others or towards our self, also known as self-compassion (Gilbert, 2011). Compassion is frequently placed under the category of empathy rather than recognized as a broad category in and of itself (Knox, 2013). Batson, Klein, Highberger, and Shaw (1995) utilized the term *compassionate* as a component of empathy rather than compassion being its own separate category. Although sympathy and compassion are useful tools when it comes to handling emotions, empathy is generally the broadest umbrella category and is researched the most in psychological studies.

The level of empathy an adult has may correlate to their attachment style when they were young. In a study conducted by Joireman, Needham, and Cummings (2001), a correlation was found between participants who had a secure attachment style when they were young and their current empathic concern and perspective taking abilities (Joireman, Needham, & Cummings, 2001). Therefore, we are already learning how to express and understand empathy from a young age by feeling secure in relationships with our parents.

Biological Basis of Empathy

There is evidence that empathy is innate within humans. Evolutionary theorists have proposed the biological function of empathy is to help humans achieve their basic needs (Damasio & Carvalho, 2013). According to Damasio and Carvalho (2013), both animals and humans have biological mechanisms in place to help them quickly evaluate whether something is threatening or advantageous to them. One of these systems is the limbic system; the oldest system in the brain (Asada, 2014). Researchers have linked the limbic system to perspective-taking and emotional contagion, two components of empathy (Asada, 2014). Another biological system that helps us understand others is the peripheral neurotransmitter oxytocin (Crockford, Deschner, Ziegler, & Wittig, 2014). In fact, there are studies in which a manipulated increase in oxytocin levels, sometimes through inhaling, can actually lead to an increase in empathy in social situations (Crockford, Deschner, Zielger, & Wittig, 2014).

This ability to recognize another's emotional state has been found in mice (Asada, 2014). In an experiment by Chen, Panksepp, and Lahvis (2009), they took two mice and labeled them Mouse A and Mouse B. They administered tiny electric shocks repeatedly to Mouse B and observed Mouse A's behavioral reactions and heart rate. Upon viewing Mouse B in pain, Mouse A would freeze completely and their heart rate increased significantly. Although they were not receiving the shock themselves, the fear was translated and recognized as shown by their lack of movement and increased heart rate (Chen, Panskepp, & Lahvis, 2009).

Neuroscientists have posited that our brains have an automatic processing system in place that allows us to feel with another individual called mirror neurons (Schumann, Zaki, & Dweck, 2014). Decety and Jackson (2006) found, using fMRI imaging, that when humans viewed a face in emotional pain or disgust, their brain would begin to mimic the emotional state of the face in which they are looking at. Lamm, Decety, and Singer (2011), in a meta-analysis of studies on

emotional mimicry, found the trend that the anterior insula and anterior medial cingulate cortex were the regions that were most closely linked to empathy in regards to pain. This shows how there are specific areas of the human brain that are biologically built in to help form an understanding of human empathy.

Hutman and Dapretto (2009) support empathy as innate from an early age. Beginning from infancy, specifically 42 minutes after birth, babies are already capable of imitating and matching adults in the environment around them. Since no shaping or learning behavior could possibly have occurred this early on, this shows that there is an innate system in our brain to help us understand others since birth.

Types of Empathy

Empathy can be separated into two categories; affective and cognitive empathy. The original form of empathy that was defined was emotional, or affective, empathy. It can be described as an ability to feel with another individual through our ability to understand other's feelings (Asada, 2015). As Schumann, Zaki, and Dweck (2014) explain, affective empathy is an automatic and unconscious process (2014). Cognitive empathy, on the other hand, is more of a conscious process; in other words, perspective taking (Asada, 2015). Perspective taking, as defined by Longmire and Harrison (2018), is our ability to try to cognitively understand another's difficulty. Therefore, in order to make use of our cognitive empathy, we must apply empathic effort to understand another's perspective (Schumann, Zaki, & Dweck, 2014). Cognitive empathy may be particularly useful in social situations where mediating conflict or helping others is necessary (Schumann, Zaki & Dweck, 2014).

Batson, Klein, Heighberger, and Shaw (1995) found a way to examine the influence of the types of empathy on decision making (1995). Participants were instructed to listen to a sick

child speak about a terminal illness with which they had recently been diagnosed. Participants were assigned to one of two conditions; either to listen and try to imagine what the child must be feeling or to listen to the child from an objective perspective. They were then given a choice. They could choose to provide a new drug to the child that would increase that child's quality of life, but if they were to do so it would move other children down on the waitlist who had been waiting longer and were to die sooner. Participants who were told to listen and understand what the child must be feeling were 73% more inclined to recommend the child be moved up the wait list.

Cognitive empathy has also been linked to altruism (Maiborn, 2017). Philosopher Thomas Nagel believed that altruism cannot exist without cognitive empathy as its source (Maiborn, 2017). While both affective and cognitive empathy can promote altruistic or compassionate actions, Maiborn (2017) maintains that an objective understanding of another person's mental state may more commonly lead to prosocial behaviors. In an alternative perspective, Bibeau, Dionne, and Leblanc (2016) analyzed a number of studies on compassionate meditation and empathy and found that focusing on compassion for the self actually helps form an objective understanding of another's emotions. Other studies that have researched compassion and empathy, such as Fulton's (2012) investigation on mindful compassion impacting both affective and cognitive empathy or Shapiro and Izett's (2008) look into the impact of mindfulness and loving-kindness on empathy, provide examples of ways to increase one's empathy.

In order to measure both cognitive and affective empathy in individuals, Davis (1983) created a scale called the Interpersonal Reactivity Index. When it came to affective empathy, he defined it as two categories: Empathic Concern and Perspective Taking. He found that,

specifically, empathic concern had a strong correlation to both emotional reactions and helping behaviors. Unlike cognitive empathy, affective empathy was also associated more with a selfless concern for others. This corroborates with the Batson, Klein, Heighberger, and Shaw (1995) study which found that when our affective empathy is being used we are more likely to engage in helping behaviors.

Empathy and Conversation

While few studies have directly investigated the link between conversation and empathy, there have been a few significant findings supporting this relationship. According to Nishida (2012), conversations consist of speech acts of both verbal and non-verbal nature. Joint actions and words shared between two individuals, such as participating in similar behaviors and using similar language, is what fosters the communication in a conversation. Gould and Gautreau (2014) investigated the link between empathy and self-reported conversational enjoyment. Their researchers found a significant correlation between older adults reported rates of enjoyment in their conversations and their level of empathic concern towards others. Because their results were correlational, this leaves the relationship between the two unexplored; is the conversation itself causing an increase in empathy?

Conversations can vary in their topic, length, and enjoyment, depending on the individuals conversing. While there is support to links between empathic concern and conversational enjoyment (Gould & Gautreau, 2014), there has been little investigation of the types of conversation that can foster empathy. However, self-disclosure has frequently been used as a construct to measure the increase in intimacy (Laurenceau, Rivera, Schaffer, & Pietromonaco, 2004). Disclosure can be considered factual and descriptive or emotional and evaluative (Morton, 1978). Factual disclosure is more impersonal and trivial, whereas emotional

disclosure involves more feelings (Morton, 1978). There may be a relationship between emotional disclosure and the strength of intimacy felt between individuals (Reis & Patrick, 1996). While disclosure is not always necessary in every conversation, these findings suggest a link to the type of disclosure being used and the increase in one's empathy. The current study will use the categories of factual and emotional as a model for types of conversations our participants will be engaged in.

Research Question and Hypotheses

The current study investigated whether specific types of conversation can lead to an increase in empathy. We manipulated whether participants engaged in factual or emotional conversation to see if one would foster more empathy. The research also investigated whether affective or cognitive empathy increased more as a result of the two types of conversation.

If participants are engaged in an emotional and evaluative conversation, then they should be more likely to show an increase in empathy. Specifically, they should be more likely to show an increase in affective empathy. Since emotional and evaluative disclosure has been linked to fostering intimacy (Laurenceau, Rivera, Schaffer, & Pietromonaco, 2004), it may be more likely that affective empathy will increase.

Methods

Participants

There were 61 participants in this study, all being undergraduate students at a small liberal arts college. Their ages ranged from 18 to 23, with an average age of 20 ($SD = 1.39$). There were 46 females, 14 males, and 1 transgender student. Participants were recruited through emails sent by their psychology professors. These students were offered participation credit for

partaking in this study. Other participants volunteered their time in which they did not receive credit but were willing to engage in the study for no compensation.

Measures

To measure empathy, the participants were given the Interpersonal Reactivity Index (IRI; Davis, 1983). This self-report questionnaire included 28 questions that aim to evaluate an individual's ability to be empathic. It measured 4 categories of empathy: perspective-taking (PT), fantasy (F), empathic concern (EC), and personal distress (PD). PT included questions such as "before criticizing someone, I try to imagine how I would feel if I were in their place." F included questions such as "I really get involved with the feelings of the characters in a novel." EC included questions such as "I often have tender, concerned feelings for people less fortunate than me." PD included questions such as "being in a tense emotional situation scares me." Questions were on a Likert scale in which 1 stated "does not describe me very well" and 5 stated "describes me very well." Each subscale contained seven items. The IRI was only given pre-condition since it is a trait based measure and would not be sensitive to state manipulation.

The participants also took the Revised Eyes Test (Baron-Cohen, Wheelwright, & Hill, 2001). In this measure, participants viewed a picture of eyes and determined the emotional state of the person by selecting one of four emotions they were given as multiple choice options (i.e. question 5: joking, insisting, amused, or relaxed). There were two sets of this measure, each with 18 eyes pictures, for a total of 36 photographs. Each picture of eyes had a correct multiple choice answer. If they selected the correct emotional state, they received a point. To grade their answers, a total number of correct answers was added up out of 18 for each set of eyes pictures. The difference between scores of both sets was calculated.

A brief 10-point Likert scale was created in order to evaluate how close the participants felt to their randomly assigned partner both before and after their conversation. The question was phrased as “how close do you feel to the participant you were assigned to?” Along with this scale on the post condition survey, four short statements were given to the participants to understand to what degree they understood and felt understood by their assigned conversation partner. Participants had to select to what extent they agreed with the statements on a scale from “Strongly Agree” to “Strongly Disagree.” The statements were as follows; “I believe I understood what the person I spoke to was thinking,” “I believe I understood what the person I spoke to was feeling,” “I believe the person I spoke to understood what I was thinking,” and “I believe the person I spoke to understood what I was feeling.”

The questions for the conversation section were based off of a study by Aron, Melinat, Aron, Vallone, and Bator (1997) in which they used two sets of conversation questions to foster interpersonal closeness in individuals. They had one set of 36 questions that would lead to self-disclosure and another set of 36 questions that would lead to small-talk between participants. The sets of 24 emotional and 24 factual questions that our study uses came from Aron et al.’s list of questions and can be seen in the Appendix A and B.

Procedure

Participants signed up online for a time slot. Up to six participants could engage in the experiment at any given time. As they showed up to the lab, they were greeted and sat in a waiting room to read over and sign their consent form. On this consent form, they were all given a random participant ID number which then assigned them randomly to another participant. At this time, they were then introduced to the participant they were partnered with. Once they signed the consent form, they were then brought into another lab room in which six desks were

set up. Each desk contained a sheet of vocabulary words that they could use during the Revised Eyes Test. They were then instructed to choose any of the desks they would like and to take out their laptop, tablet, or cellphone. Participants then were asked to type in a link to an online survey which included the basic demographic information, a closeness scale, the IRI, and the first half of the Revised Eyes Test.

After all the participants finished these surveys, they were assigned in their pairings to another lab room for them to enter. In these lab rooms two chairs were set up facing each other. Half of the rooms had the list of emotional questions in them and the other half had a list of factual questions. They were then told that they had thirty minutes to answer as many of the questions from the list with the other participant that they could.

After the thirty minutes was up, they were told to come back into the main lab room and to make their way back to their desks. They were provided another link to a survey where they filled out the other half of the Revised Eyes Test and some basic questions regarding their conversation with the other participant. Once they were done, they were all given a short debriefing regarding the nature of the study and offered counseling in case any of them were feeling distress from the questions. The participants were then dismissed.

Results

In order to ensure that there were no differences in empathy prior to the manipulation, IRI scores were compared for the two groups. These analyses did not yield significant results, although the data for empathic concern was approaching significance with empathic concern lower for the emotion group ($M = 18.29$, $SD = 5.63$) than the factual group ($M = 20.58$, $SD = 3.40$), ($t = -1.75$, $df = 48$, $p = .086$). Results for the rest of the IRI scores are shown in Table 1.

The results comparing the emotional group to the factual group's eyes test score are shown on Table 2. In an independent groups *t*-test, the emotional group's score ($M = .97$, $SD = 2.18$) was compared to the factual group's score ($M = 1.29$, $SD = 3.14$). The data from this test was not statistically significant in that one group's empathy did not increase more than the other and had a small effect size, ($t = .46$, $df = 58$, $p = .646$, two-tailed, $d = .12$)

Since the independent groups *t*-test did not yield significant results, a paired samples *t*-test was conducted with all the participants total pre eyes test scores ($M = 13.5$, $SD = 2.87$) and total post eyes test scores ($M = 14.63$, $SD = 2.19$). From the data, there was statistical significance in all the participant's post eyes test scores increasing with a small effect size ($t = 3.25$, $df = 59$, $p = .002$, two-tailed, $d = .44$).

Analyses were conducted examining whether individuals in the emotional and factual group felt understood. On the question that asked "I believe the person I spoke to understood what I was thinking," an independent groups *t* test that compared the emotional group ($M = 1.59$, $SD = .57$) to the factual group ($M = 2.03$, $SD = .95$) was conducted. The data showed statistical significance for the emotional group with a moderate effect size ($t = 2.2$, $df = 58$, $p = .032$, two-tailed, $d = .58$). Additional questions examining whether the individual felt understood or understood the other person did not indicate significant results. The means and standard deviations for these scales are presented in Table 3. Significant differences were not found for the questions "I believe I understood what the person I spoke to was thinking" ($t = -1.27$, $df = 58$, $p = .210$), "I believe I understood what the person I spoke to was feeling" ($t = -1.03$, $df = 58$, $p = .307$), and "I believe the person I spoke to understood what I was feeling" ($t = -1.43$, $df = 58$, $p = .158$).

Another independent groups *t*-test was conducted to compare the emotional ($M = 1.10$, $SD = .31$) and factual ($M = 1.94$, $SD = 2.03$) groups rated post closeness to their assigned participant. From this data, we found statistical significance with the emotional group rating higher post closeness with a medium effect size ($t = -2.19$, $df = 59$, $p = .033$, two-tailed, $d = .72$).

In order to determine if people's pre-closeness affected their empathy, an independent groups *t*-test was conducted to compare the emotional group ($M = 5.69$, $SD = 2.26$) to the factual group ($M = 3.63$, $SD = 2.65$). The factual group had a larger significance in knowing each other pre application of the test condition with a high effect size ($t = 3.12$, $df = 54$, $p = .003$, two-tailed, $d = .84$).

Discussion

My primary hypothesis posited that the emotional group would increase in empathy more than the factual group. Analysis of the data suggests that being assigned to the emotional or the factual group did not show result in a significant change of empathy when comparing groups. Additionally, the hypothesis stating that the emotional group would increase in affective empathy more than their cognitive empathy was not supported. This conflicts with the finding from the Reis and Patrick (1996) study that found a link between emotional conversations and a stronger sense of intimacy between individuals. While an increase in intimacy does not necessarily imply that affective empathy would increase, it was hypothesized that empathy plays an important role in fostering intimacy and, therefore, would be a factor that would increase from an emotional conversation as well.

The Batson, Klein, Heighberger, & Shaw (1995) study supported that participant's affective empathy would increase when exposed to emotional content. However, affective empathy did not increase more than cognitive empathy from the emotional conversation.

Another study used to support the belief that affective empathy would increase was Gould and Gautreau (2014). Even though they found the correlation between empathic concern and conversation enjoyment, this does not necessarily mean causation. As empathic concern is one of the measures of affective empathy, my hypothesis was that this conversation between the participants could help foster the increase in their empathic concern. However, this was not the case and more studies on possible causation between these two will have to be done in the future.

There are many possible reasons as to why my hypotheses were not supported. One reason is there is a chance that our measure for empathy, the Revised Eyes Test (Baron-Cohen, Wheelwright, & Hill, 2001), did not have the strength to notice an increase in empathy between the two conditions. The test was developed to research the ability of autistic children and adults to understand human emotions and the Revised Eyes Test was not originally intended to be used as a pre and post test measure. It is possible that there are other tests intended to measure pre and post empathy, however one was not found for the purposes of this study.

Another possible explanation as to why the participant's affective empathy did not increase more is that there was no way to know definitively if the participants were listening and trying to understand each other. As the participants entered their individual rooms to have their conversation, the doors closed and there was no way to know if they followed the questions and were listening to their partner. However, one of the findings showed that the emotional group reported that they felt like the person they were assigned to understood what they were thinking more than the factual group. This means that the emotional group felt more understood on a cognitive level than the factual group. There are many possible reasons as to why we found this result. Since the participants were not trained or informed on any type of empathy, they were not aware of how to utilize empathy during their conversation. Since our culture is already skewed

towards avoiding emotion (Schumann, Zaki, & Dweck, 2014), the participants might have been focusing more on the content of what their partner was saying rather than the feelings behind it. The participants in the factual group already had questions that were content driven, therefore did not necessarily feel the discomfort with emotions or try to avoid them. Also, given the short nature of the conversation, there might not have been enough time for a more intimate bond to be established between the participants. Because of this, there might have been a lack of comfort for the participants to open up and share their emotions with each other whereas the factual group might have felt more comfort answering more surface level questions.

Interestingly, even though the emotional group did not show an increase in empathy more than the factual group, all participants who took part in this experiment showed a statistically significant increase in their empathy. This means that no matter which conversation the participants were assigned to their empathy increased, showing that any conversation could be a powerful tool for fostering empathy in individuals. It has been found that self-compassion can lead to an increase in empathic concern for others (Bibeau, Dionne, & Leblanc, 2016). While this study devised a conversation between two individuals, there is a chance that the questions, which were focused on answering information about the self, could have led the participants to have more self-compassion. Therefore, because of this focus on their own self in both sets of questions, they were then able to be more empathic towards the other person as well.

What is also interesting is that on the scales of post-closeness, there was a statistically significant finding in the emotional group increasing in closeness after their conversation. This corroborates with the study by Aron, Melinat, Aron, Vallone, and Bator (1997) in which they found a correlation between the self-disclosure conversation leading to a stronger increase in interpersonal closeness between the individuals. It is not surprising then that the group of

individuals who engaged in the more emotional set of questions felt closer to the partner they were assigned to. It's also interesting that we found this despite the factual group having a higher amount of pre-closeness to the partner they were assigned to. Even though this happened by chance, we still found that the emotional group felt closer to their assigned partner after the conversation.

As with every scientific study, there were limitations that could be addressed in future studies. The circumstance for recruiting participants was limited and thus led to a small sample size. Given the relatively small pool of participants, there was a higher chance that individuals would know each other pre experimental condition. By chance, the factual group did have a higher significance in knowing each other and, therefore, this may have skewed the results. Since people in the factual group knew each other better coming into the study, this confound of closeness potentially put them at an advantage for increasing their empathy. Closeness has been found to increase more from emotional conversations (Reis & Patrick, 1997), however if the factual group already had higher baseline closeness then the data was skewed so that the emotional group then had greater opportunity to increase in closeness. On the other hand, we could presume that empathy could increase more through conversation if the people are already comfortable with one another, however more studies would have to be done to test this theory. Despite there being higher closeness in the factual group, we still found that the emotional group increased in closeness more than the factual group.

Another potential limitation was our use of the Revised Eyes Test by Baron-Cohen, Wheelwright, & Hill (2001). As mentioned previously, no studies were found that used this test as a pre and post measure of empathy. Therefore, there have not been any split-half reliability tests done to ensure that the pre and post eyes test measures had the same level of difficulty. The

test was split in two by the original authors though, showing that the test did have the ability to be separated into sections with an even number of women and men's eyes in both groups. Also, no currently existing studies were found that look for ways to increase empathy either cognitively or affectively. Therefore, it was difficult to find a method that would appropriately find a way to increase empathy. While the method is based on a previous study (Aron, Melinat, Aron, Vallone, & Bator, 1997), they did not use this method as a way to increase empathy. It was then difficult to predict if this method would be appropriate for our own study. Even though their method did not have past usage for studying empathy, it still provided inspiration for how we would be able to structure our study's method.

Given that the participants were recruited from a college campus, there were times when a participant would not show up and a research assistant would fill in for the conversation. Given their knowledge of the purpose of this study, this could have skewed the data of the participants who had engaged in a conversation with them. However, the research assistants had not seen the questions beforehand so they would not pre-plan their answers. Finally, the data from the Interpersonal Reactivity Index (Davis, 1980) unfortunately had some mistakes since the survey software was not set to force choice for the participants. Some participants skipped questions and we were therefore unable to use their data for the IRI. However, we were still able to use the data from 50 participants IRI responses which is still a large number of participants.

Despite the limitations and the lack of support for the original hypothesis, there was support for any conversation leading to an increase in empathy. For the future, it would be interesting to study to what extent the participant's empathy increased. For example, a longitudinal study could be conducted to see how their empathy is affected long term. Also, there's a chance that other types of conversation could lead to an increase in empathy. For

example, perhaps conversations about the self could lead to an increase in empathic concern more than conversations about others would (Bibeau, Dionne, & Leblanc, 2016). Given that studies on increasing empathy are only just beginning, the possibilities are endless on ways we can use conversation as a tool.

While empathy is generally thought to be an innate ability within most of us, it is becoming clear that there can be ways to help others that struggle to empathize increase this skill. Whether it be through self-compassion or conversation, it seems that empathy is something we can practice and become better at using. From a relatively small sample, there was support for increasing empathy due to the interaction between two people engaging in a conversation. If more research is done to support using conversation as a tool to increase empathy, this data could be used to help people around the world better understand each other. In a world with a multitude of opinions, values, and beliefs, we can all find a way to relate to each other just by using our innate common denominator; our empathy.

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Table 1

Comparing Emotional and Factual Groups IRI Subscale Scores

Ratings	Emotional		Factual		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Perspective Taking	17.41	5.12	18.04	5.18	-.5	55	.650
Empathic Concern	18.29	5.63	20.58	3.40	-1.8	48	.086
Fantasy Scale	17.16	5.79	18	5.79	-.52	50	.603
Personal Distress	11.55	5.70	12.07	5.20	-.34	47	.736

Table 2

Comparing Emotional versus Factual Groups Post Minus Pre Eyes Test Scores

Ratings	Emotional		Factual		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Eyes Test	.97	2.18	1.29	3.14	.46	58	.646

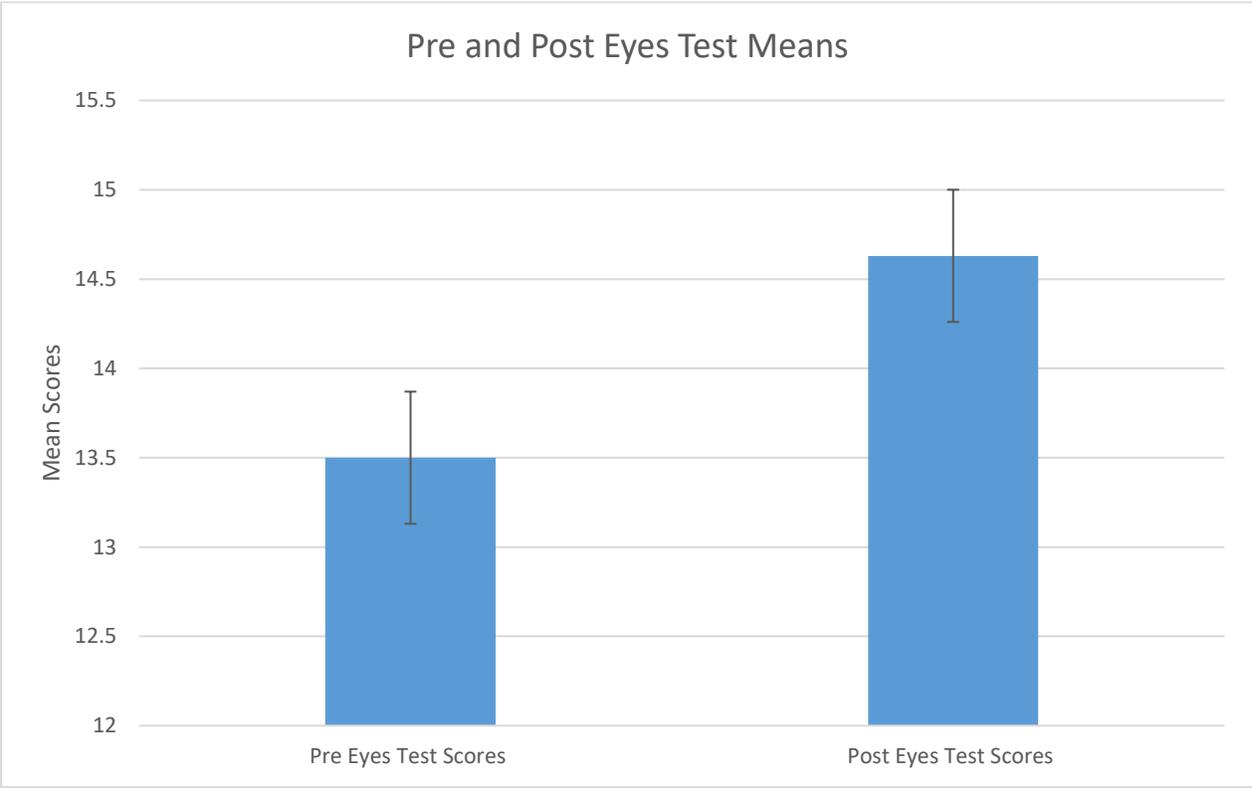
Table 3

Comparing Emotional and Factual Groups Thoughts and Feelings Scales

Ratings	Emotional		Factual		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Other person understood my thoughts	1.59	.57	2.03	.95	-2.2	58	.032*
Other person understood my feelings	1.66	.72	1.97	.95	-1.4	58	.158
I understood the other's thoughts	1.66	.67	1.90	.83	-1.2	58	.210
I understood the other's feelings	1.66	.81	1.87	.81	-1.0	58	.307

* $p < .05$

Figure 1



Appendix A

Emotional Questions

Answer each question with your partner. One partner should read the question aloud and then you both shall answer, starting with the person who read it aloud. When you both have answered, move on to the next question. Please go in order. You will have 30 minutes. If you do not get to all the questions, that is okay.

1. Given the choice of anyone in the world, whom would you want as a dinner guest?
2. Would you like to be famous? In what way?
3. What would constitute your “perfect” day?
4. If you were able to live to the age of 90 and retain either the body or mind of a 30-year-old for the last 60 years of your life, which would you want?
5. Do you have a secret hunch about how you will die?
6. For what in your life are you most grateful?
7. If you could change anything about the way you were raised, what would it be?
8. If you could wake up tomorrow having gained any one quality or ability, what would it be?
9. If a crystal ball could tell you the truth about yourself, your life, the future or anything else, what would you want to know?
10. Is there something that you’ve dreamed of doing for a long time? Why haven’t you done it?
11. What is the greatest accomplishment of your life?
12. What do you value most in a friendship?
13. What is your most treasured memory?

14. If you knew that in one year you would die suddenly, would you change anything about the way you are now living? Why?
15. What is your favorite quality about yourself?
16. How do you feel about your relationship with your mother?
17. Who do you feel closest to in your life?
18. Share with your partner an embarrassing moment in your life.
19. When did you last cry in front of another person? By yourself?
20. What, if anything, is too serious to be joked about?
21. If you were to die this evening with no opportunity to communicate with anyone, what would you most regret not having told someone? Why haven't you told them yet?
22. Your house, containing everything you own, catches fire. After saving your loved ones and pets, you have time to safely make a final dash to save any one item. What would it be? Why?
23. Of all the people in your family, whose death would you find most disturbing? Why?
24. What is your biggest struggle in your life at the moment?

Appendix B

Factual Questions

Answer each question with your partner. One partner should read the question aloud and then you both shall answer, starting with the person who read it aloud. When you both have answered, move on to the next question. Please go in order. You will have 30 minutes. If you do not get to all the questions, that is okay.

1. What was the best gift you ever received and why?
2. How did you celebrate last Halloween?
3. If you had to move to a new state, where would you move and why? What would you miss about your current state?
4. If you could invent a new flavor of ice cream, what would it be?
5. What is the best restaurant you've been to in the last month? Describe it.
6. Describe the last pet you owned.
7. What is your favorite holiday and why?
8. What gifts did you receive on your last birthday?
9. Describe the last time you went to the zoo.
10. Tell the names and ages of your family members, including grandparents, aunts, uncles, etc.
11. Do you like to get up early or stay up late?
12. Where are you from? Name all the places you lived.
13. What is your favorite class you've taken so far in college?
14. What did you do last summer?
15. What gifts did you get for Christmas/Hannukah?

16. Who is your favorite actor of your gender? Describe your favorite scene they've been in.
17. What was your impression of college when you started and how did it change?
18. What is the best TV show you've seen in the last month? Describe it.
19. Where did you go to high school? Describe what your high school was like.
20. What is the best book you've read in the last three months? Describe it.
21. What foreign country would you like to visit? What attracts you to this place?
22. Describe your mother's best friend.
23. How often do you get a haircut? Where do you go? Have you ever had a bad experience with haircuts?
24. What is the last concert you saw? How many times have you seen them before (if ever)?
Where?