

CREATING AND STUDYING “INSTANT ENEMIES” AND INSTANT ALLIES” IN SAME-SEX
DYADIC INTERACTIONS

by

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ABSTRACT

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The present study was designed to investigate the “instant enemy” and “instant ally” phenomena. Forty-three pairs of unacquainted college students interacted in same-sex and same-race pairs for 10 minutes. In the enemy condition, the dyads consisted of one participant who was liberal and one participant who was conservative. In the ally condition, both participants were either liberal or both participants were conservative. It was expected that dyads consisting of political opposites would behave like “instant enemies,” whereas dyads consisting of participants with similar political attitudes would behave more like “instant allies.” This general prediction was expected to be reflected in self-report, behavioral measures, and physiological measures of stress (e.g., cortisol). The results failed to support any of the formal hypotheses. However, some effects that were not formally hypothesized were found. For instance, preliminary evidence was found that suggested that the strangers’ interactions were negative when the participants had dissimilar attitudes and at least one participant was low on agreeableness.

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CHAPTER 1

INTRODUCTION

Rick boarded the train and began looking for a place to sit. He spotted an empty row and chose the window seat. A few minutes later, a man sat down next to him. Rick decided to read the book he had brought, which was a critique of the current presidential administration. Upon glancing at the book, the man seated next to him began questioning Rick about his political orientation. Rick quickly discovered that he and the other man had opposite views about politics. They argued for several minutes until the tension became so thick that Rick felt compelled to break it by excusing himself and moving to a row at the back of the compartment.

A week later, when Rick had occasion to take the same train, he began to feel nervous about whom he might sit next to. He certainly did not want this trip to resemble the last one. He decided to be extra cautious and bring along a less politically provocative book. Again, he chose a window seat, and shortly afterwards a man came and sat down next to him. To Rick's surprise, the man began reading the exact book that Rick had tried to read on the previous train ride. Rick told the man that he had been reading the same book, which prompted a very long and surprisingly amicable conversation about politics. They agreed on virtually all issues and, by the end of the trip, Rick felt that he had made a new friend.

As this hypothetical scenario suggests, initial encounters with strangers can at times have a powerful impact on our lives. This is especially true when they take the form of exceptionally negative or positive encounters, as in the two cases that Rick experienced. One might even say that Rick met an “instant enemy” on the first trip and an “instant ally” on the

second trip. But what accounts for the feelings of immediate enmity between some individuals and the feelings of immediate kinship among others? Does disagreeing with someone's political attitudes typically constitute enough reason to form an instant dislike for them and to rate their personality negatively? And in the opposite case, does agreeing with someone's political attitudes constitute enough reason to form an instant attraction to them and to rate their personality positively? Furthermore, what kinds of reactions do individuals have during these experiences? Does the tension one feels when faced with an "instant enemy" manifest itself in nonverbal "distancing" behaviors and in changes in body chemistry, such as increased cortisol production? The present study used observational research to examine how "instant enemies" and "instant allies" develop in the context of naturally occurring social interactions.

Although interpersonal attraction and friendship formation have been studied extensively (Fehr, 2004; Morry, 2007), there has been relatively little research on how two people come to regard each other as enemies. In fact, some of the most relevant existing research has tended to focus on groups, rather than individuals, and is found primarily in the literature on prejudice. Prejudice has been defined as a form of hostility targeted at members of an outgroup (Allport, 1954; Brown, 2000; Pettigrew, 1982). A dramatic example is provided by hate crimes. Hate crimes, which can be viewed as an extreme manifestation of the "instant enemy" phenomenon, are typically directed at strangers who are readily recognized as being members of a despised outgroup (Berrill, 1990; Cheng, Ickes & Kenworthy, in press; Herek, Cogan, & Gillis, 2002; McDevitt, Levin, Bennett 2002).

In Rick's case, we can attribute the stark contrast between his two interaction experiences to ideological differences. Findings that have accumulated in social psychological research over nearly half a century have clearly established the positive relationship between attitude similarity and attraction (Byrne, 1961, 1971, 1997). More germane to the topic of "instant enemies" is the opposite relationship—the link between attitude *dissimilarity* and repulsion. Arguing an extreme position, Rosenbaum (1986) proposed that *only* dissimilar

attitudes play a significant role in interpersonal attraction, and that they do so by triggering repulsion, the opposite of attraction. In Rosenbaum's view, similar attitudes are unnecessary for relationship development.

Subsequent research has demonstrated, however, that both attitude similarity and attitude dissimilarity play a role in attraction, but attitude dissimilarity is weighted more heavily when forming impressions of other individuals (Singh & Teoh, 1999; Singh & Ho, 2000). The studies used to draw these conclusions have an important limitation, however. In most cases, these attraction/repulsion studies have employed the "bogus stranger" paradigm, wherein participants merely view the attitude profiles of fictitious individuals rather than interact with an actual stranger. Conclusions that can be drawn from such studies are limited, because the only information salient to the participant is the "stranger's" attitudes.

A few studies have examined the association of attitude similarity with attraction in the context of actual interactions. Byrne, Baskett, and Hodges (1971) performed two experiments to test whether or not perceiving a person to be similar to oneself would cause participants to position themselves in closer proximity to the similar other. The researchers led the participants to believe that one same-sex confederate held similar attitudes whereas a second same-sex confederate held dissimilar attitudes. In their first study, participants chose from seats arranged side-by-side. The two confederates were seated in the second-to-last seat on either end. Females more often sat next to the similar confederate, however, males seemed to have no clear preference.

The researchers acknowledged that the difference they found between males and females might be due to a gender difference regarding preferred seating arrangements. To rule out this alternative explanation, their second study involved a face-to-face arrangement, wherein participants could choose between one of two chairs situated opposite to each confederate. With this procedural change in effect, the male participants usually chose the seat opposite the similar confederate.

Other studies have examined the formation of attraction between multiple participants, rather than between a participant and a confederate. Newcomb (1961) studied two groups of unacquainted male students who were brought together to live in the same boardinghouse. He found that, over a period of a year, individuals with similar attitudes were more likely to become close friends than those with dissimilar attitudes. Similarly, Griffitt and Veitch (1974) studied unacquainted males who volunteered to live for ten days in conditions designed to replicate a fall-out shelter. A variety of attitudes were evaluated for each of the participants prior to their internment. During the study, the participants were asked at three different points to identify the three individuals they would like to remain in the shelter, as well as the three individuals they would least like to remain. Consistent with previous findings, attraction was correlated with attitude similarity at all three points.

Although these studies address attitude similarity and attraction within actual interactions, they do not address in detail what occurs when the basis of a mutual antipathy is present. Moreover, because the Byrne et al. study involved interacting with a confederate, there was only a unilateral attraction being studied. The Newcomb (1961) study and the Griffitt and Veitch (1974) studies do a better job of addressing the mutual nature of attraction/repulsion because no confederates were used. However, because the participants were living together and could choose who they interacted with, incidences of mutual antipathy could not be reliably anticipated or closely examined.

To enable a more focused behavioral study of mutual antipathy as well as mutual attraction, the present study used the unstructured dyadic interaction paradigm (Ickes, Robertson, Took, & Teng, 1986; Ickes, Stinson, Bissonnette, & Garcia, 1990) to explore the formation of instant mutual antipathy between two individuals. Although some of the previously mentioned studies have alluded to the mutual antipathy phenomenon, it still remains to be thoroughly examined. The following findings provided the background for the exploration of this phenomenon.

1.1 Behavioral and Physiological Manifestations of Mutual Antipathy: Previous Findings

Several studies have demonstrated how implicit negative attitudes toward a person are manifested in nonverbal behavior. McConnell and Leibold (2001) found that prejudiced attitudes were associated with less speaking time and more speech errors by White participants when they interacted with a member of a different race. A conceptually similar study demonstrated that White participants with implicitly prejudiced attitudes displayed less eye contact and more blinking when interviewed by a Black confederate (Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997). Ickes (1984) found comparable effects, such that white participants, who were inclined to avoid contact with Blacks, tended to smile less when they were actually required to interact with a black participant for the study.

It is reasonable to predict that interacting with someone who is viewed negatively, as in the above-mentioned studies, will be experienced as more stressful than interacting with someone who is viewed positively. This prediction follows directly from Heider's (1958) balance theory, which asserts that if Person A has a positive affective link to attitude X and Person B also has a positive affective link to attitude X, then a psychologically "balanced" relationship requires that Person A and Person B also have a positive affective link to each other (i.e., they should like each other). On the other hand, if Person A and Person B disagree (Person A has a positive affective link to an attitude that Person B is negatively linked to), a state of psychological imbalance exists, and one way to resolve it and achieve a more balanced state is for A and B to dislike each other. However, mutual dislike itself engenders a strong sense of psychological imbalance, as Heider (1958) has noted, because it violates the general expectation that pairs of people will, in general, like each other. Mutual dislike should therefore result in feelings of mutual tension, stress, and discomfort.

More intuitively, this same prediction also follows from the commonsense perception that if one does not successfully conceal one's feelings of contempt or antipathy for an interaction partner, the partner can be expected to recognize and then reciprocate these

feelings, thereby leading to a tense and unpleasant interaction in which the tension and bad feelings can continue to escalate. The effects of this *reciprocity norm* on the dyad-level expression of mutual liking or mutual dislike have been repeatedly documented in the research literature, most notably in research based on the various circumplex theories (Kiesler, 1983; Leary, 1957; Wiggins, 1982).

When people are faced with such a potentially stressful incident, a sequence of physiological responses is initiated in order to handle the stressor. One such physiological response is activation of hypothalamic-pituitary-adrenal (HPA) functioning, which leads to the release of the hormone cortisol. A person's cortisol level is indicative of the level of stress that he or she is currently experiencing (McEwen, 1998). Research that examines the relationship between intense interpersonal liking and disliking and cortisol levels is virtually non-existent; however, analogous studies have looked at negative interactions and cortisol production.

For example, one study demonstrated higher levels of cortisol in romantic couples, particularly men, following a marital conflict discussion (Laurent & Powers, 2006). Flinn and England (1995) found similar results when they studied negative and positive interactions between children and other family members, such that cortisol levels were significantly higher following negative interactions. Other studies have demonstrated that engaging in competitive tasks results in more cortisol production in males (Edwards, Wetzel, & Wyner, 2006; Wagner, Flinn, & England, 2002). Taken together, the results of these studies may provide insight into how cortisol production would be affected in the “instant enemy” situation, because such a situation would likely involve a negative interaction and, perhaps, also represent a type of competition due to feelings of rivalry over the desire to see one's own values or viewpoint prevail.

1.2 The Present Study

The present study sought to explore various aspects of the “instant enemy” and “instant ally” phenomena by drawing from the previously discussed research on attitude similarity and

attraction, attitude dissimilarity and repulsion, nonverbal manifestations of prejudice, and cortisol production during negative interactions and competitive tasks.

In particular, the study investigated how the awareness of similar or dissimilar political attitudes between two strangers could contribute to the formation of “instant enemies” and “instant allies.” It investigated how the participants’ conversations, nonverbal behavior, and self-report measures differ from one context (“instant enemies”) to the other (“instant allies”). Finally, pre- and post-interaction saliva samples were obtained from the two participants in each session and used to measure their cortisol levels, so that the apparent stress levels of individuals who meet “instant enemies” could be compared to those of individuals who meet “instant allies.”

To study these phenomena, the observational method known as the *unstructured dyadic interaction paradigm* was used (Ickes et al., 1986; Ickes et al., 1990). In this method, two participants are led into a “waiting room” and seated on a couch. Once they have been seated, the experimenter “discovers” that he or she will have to leave them alone together for a few minutes to take care of an “errand.” While the experimenter is gone, the interaction that occurs between the two participants is covertly recorded via a hidden microphone and camcorder. This observational method enables the researcher to obtain records of the dyad members’ spontaneous, unstructured behavior during the interaction. The recording is unobtrusive and the participants are unaware that the experiment has already begun and that their initial interaction together is being filmed.

The resulting video recordings can be coded to obtain measures of a wide range of verbal and nonverbal behaviors. Verbal behaviors that can be evaluated include, but are not limited to, the number of conversation sequences initiated by each participant and the number of questions and statements made by each. The researcher can also measure nonverbal behaviors such as each participant’s body orientation, the interpersonal distance between the

two of them as they sit on the couch, and the frequency and duration of their smiles, laughs, and directed gazes.

In the present study, each participant was matched with a same-sex and same-race interaction partner according to their similar or dissimilar political orientation. Some dyads were composed of interaction partners who had the same political orientation, whereas other dyads were composed of partners with opposing political orientations. The resulting design included three dyad conditions: (1) two ally conditions in which the dyad members had the same political orientation (conservative-conservative and liberal-liberal) and (2) one enemy condition, in which the dyad members had different political orientations (conservative-liberal).

This design, along with aspects of the method that were intended to prime the participants' political beliefs (see below), sought to facilitate the formation of "instant" enemy and ally relationships so that the development of these relationship types could be captured and observed directly in the video recordings. Post-interaction self-report measures were also collected from the participants in each session, in order to see how the dyad members perceived the interaction. In addition to these behavioral and psychological measures, saliva samples were collected from each participant both before and after their initial, unstructured interaction.

In summary, the literature discussed above suggests that attitude similarity can lead to attraction, whereas attitude dissimilarity can lead to repulsion, and that this difference may be evident in self-report, behavioral and physiological measures. Given this expected difference, the following hypotheses are proposed.

1.3 Hypotheses

The overarching general hypothesis was that dyad partners with opposing political views should be more likely to behave like "instant enemies," whereas dyad partners with similar political views should be more likely to behave like "instant allies." A holistic approach

was adopted by examining evidence of this “instant ally” and “instant enemy” phenomena across a variety of different dependent measures.

1.3.1 Hypothesis 1

Participants in the ally condition should report higher levels of liking for partner than participants in the enemy condition.

1.3.2 Hypothesis 2

Participants in the ally condition should perceive their interaction as being more smooth and relaxed than participants in the enemy condition.

1.3.3 Hypothesis 3

Consistent with the general hypothesis, the participants in the ally dyads should provide each other with more verbal reinforcements (“yeah” and “uh huh”). This hypothesis is based on the expectation that participants in the dyads composed of members with similar attitudes will agree more than participants in the dyads composed of political opposites.

1.3.4 Hypothesis 4

Because they should perceive their allies as like-minded, participants in the ally dyads should disclose more personal (as opposed to impersonal) information to each other. This empirically-based prediction is based on previous evidence that increased liking leads to increased self-disclosure (Certner, 1973; Gelman & McGinley, 1978). This prediction also follows from the Hypothesis 3 assumption that, given more verbal and nonverbal reinforcements for their shared political views, the members of like-minded dyads should expect such reinforcement to generalize to their disclosure of more personal information. In contrast, participants in the enemy dyads should disclose less personal information, because (1) they should recognize or assume that their interaction partner has opposing views, which should lead to less liking and potentially greater stress, anxiety, and conflict; and (2) their disclosure of impersonal (political) information will not be reinforced, and may be actively punished, therefore discouraging their disclosure of personal information.

1.3.5 Hypothesis 5

The participants' nonverbal behavior should reflect their liking or disliking for their dyad partner. Based on the findings of previous dyadic interaction studies (including gender-composition differences in the nonverbal behaviors of same-sex female dyads and same-sex male dyads (Garcia, Stinson, Ickes, Bissonnette, & Briggs, 1991; Ickes & Barnes, 1977; Ickes, Tooke, Stinson, Baker & Bissonnette, 1988; Ickes, Schermer & Steeno, 1979), the following differences in nonverbal behavior were expected:

1.3.5.1 Hypothesis 5a: Positive Affect (Smiles and Laughter)

The participants in the ally condition should display more smiles and laughter than the participants in the enemy condition. This prediction was based on the many empirical precedents suggesting that the "like-minded" individuals should determine that they have many attitudes in common with their dyad partner, thereby making them feel more at ease and freer to demonstrate more positive affect (see the review of previous relevant findings above). With regard to gender composition differences and also consistent with previous findings (Ickes, Schermer, & Steeno, 1979; Ickes et al., 1988), it was predicted that, overall, the female-female dyads would display more smiles and laughter than the male-male dyads.

1.3.5.2 Hypothesis 5b: Interpersonal Distance

The members of the ally dyads should sit closer to each other on the couch than members of the enemy dyads. This prediction is based on the findings from the previously discussed study by Byrne et al. (1971) in which participants chose to sit closer to confederates who appeared to have similar attitudes rather than dissimilar attitudes. With regard to gender composition differences, it is predicted that, consistent with previous findings using the unstructured dyadic interaction paradigm (Ickes et al., 1979; Ickes et al., 1988), the members of the female-female pairs should tend to sit closer together than the members of the male-male pairs will.

1.3.5.3 Hypothesis 5c: Mutual Gaze

Because mutual gaze (i.e., "eye contact") tends to amplify the predominant affective tone of an interaction (Ellsworth, Carlsmith & Merrill, 1968; Scherwitz, Helmreich, 1973; Fukuhara, 1990), the participants in the ally dyads should display more mutual gazes than participants in the conservative-liberal dyads. The rationale for this prediction is that "political opposites" would want to avoid eye contact because of its tendency to intensify the level of tension they feel. With regard to gender-composition differences, based on previous findings (Ickes et al, 1979; Ickes et al., 1988), it was also predicted that, overall, the female-female dyads should display more mutual gazes than the male-male dyads.

1.3.6 Hypothesis 6

Because cortisol is implicated in underlying stress levels, it was expected that participants in the ally condition (conservative-conservative and liberal-liberal) should have a comparable, or even lower, average level of cortisol in their post-interaction saliva sample than in their pre-interaction saliva sample, whereas the participants in the "enemy" condition (conservative-liberal) should have a higher average level of cortisol in their post-interaction saliva sample than in their pre-interaction sample. This hypothesis is a logical corollary of the general prediction (see above) that meeting an unexpected "ally" would have a reassuring and relaxing effect, whereas meeting an unexpected "enemy" would have an anxiety-inducing effect. In addition, when looking at the *between-dyads* differences in cortisol levels, it was predicted that the participants in the "enemy" condition should have significantly higher levels of cortisol in their post-interaction saliva samples than the participants in the ally condition.

CHAPTER 2

METHOD

2.1 Participants

The participants were 44 male and 42 female students who were enrolled in introductory psychology classes at the University of Texas at Arlington. There were 11 female enemy dyads and 12 enemy male dyads. There were 10 female ally dyads with 5 consisting of two liberals and 5 consisting of two conservatives. There were 10 male ally dyads with 6 consisting of two liberals and 4 consisting of two conservatives. The dyad members were selected based on their responses to a political orientation test developed by Popan (2008). This scale had an inter-item reliability of .84 in the current sample and a test-retest reliability of .90, each measured by Cronbach's alpha. This test appeared on the departmental pretest taken at the beginning of the semester. Participants who scored half of a standard deviation above or below the mean on this test were eligible to participate. The scale was scored with higher scores indicating conservative responses (i.e., more agreement with conservative political attitude positions and less agreement with liberal political attitude positions). Responses to the items assessing liberal attitude positions were reverse scored, which made low scores indicative of more liberal attitudes. The participants were recruited via phone and/or e-mail by an undergraduate research assistant who did not inform them of the reason(s) for their recruitment to the study or the fact that they would be participating in pairs. Upon completing the study, each of the participants received participation credit in their introductory-level psychology course.

2.2 Setting and Materials

2.2.1 Laboratory Setting

The study took place in the UTA Social Interaction Lab. This facility includes an observation room, a control room, a storage closet, and two cubicles. The observation room, which is where the interaction occurred, contained a couch, a coffee table, and a bookshelf. A wireless transmitting microphone was hidden behind the couch, which backed up to the wall. Directly across from the observation room is a storage closet. The storage closet contained several inconspicuous boxes, one of which concealed a digital camcorder. The control room is adjacent to the observation room and contained audio and video equipment for recording the interaction. Two cubicles are located next to the control room, which provided participants with a private area for completing various pre and/or post-interaction measures. See figure 1 for a layout of the laboratory.

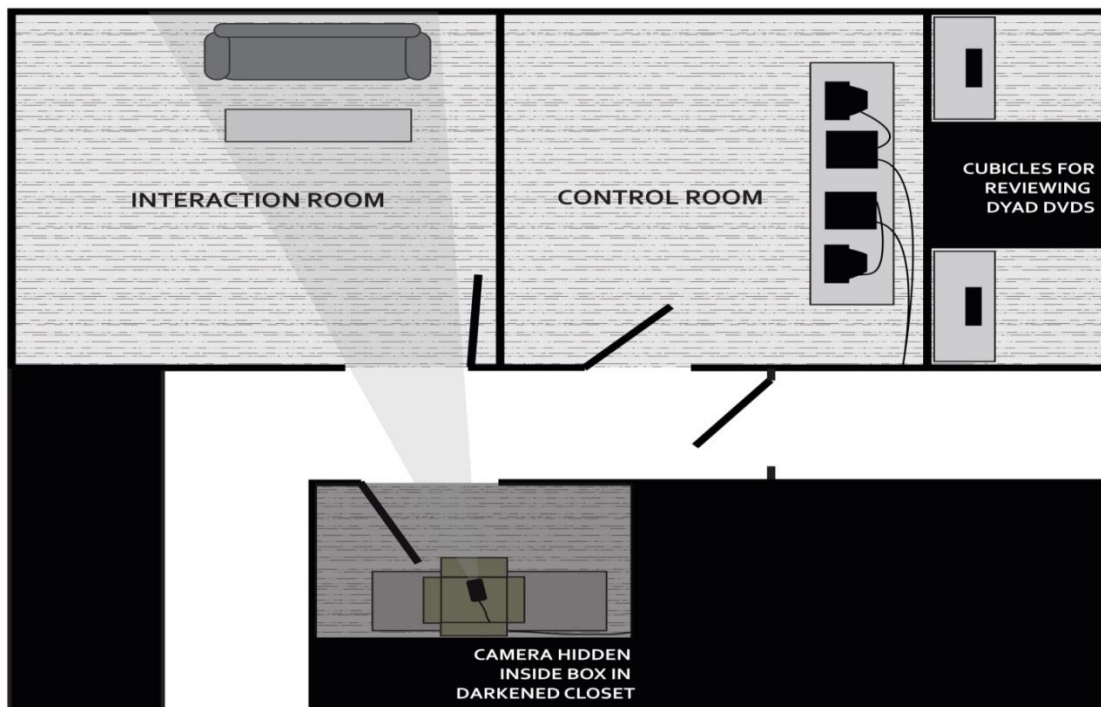


Figure 2.1 Layout of Laboratory.

2.2.2 Pre-interaction Political Test

To prime their political attitudes and their perceptions of groups that are typically viewed less harshly by liberals than by conservatives, the participants were asked to complete a pre-interaction attitude scale ($M = 3.92$, $SD = .99$) that contained items such as, "Same-sex (gay) marriages should be legalized." Other items on this scale tap attitudes toward immigration, funding for social programs, abortion, etc. (see Appendix A). The participants used a Likert-scale response format to indicate the degree to which they agreed or disagreed with each statement. This scale was administered to the participants individually before they were brought together and were taken into the observation room.

2.2.3 Big Five Inventory

The 44-item Big Five Inventory (John, Donahue, & Kentle, 1991) was included on the departmental pretest with the intent to use the data to conduct exploratory analyses of possible personality variables that might contribute to the "instant enemy" or "instant ally" phenomenon.

2.2.4 Post-interaction Thought/Feeling Logs

Immediately after their initial, unstructured interaction, the participants were asked to view a copy of the DVD recording and pause it at each of the points where they distinctly remember having had a particular thought or feeling. At each of these "stop points," the participant wrote down the content of the thought or feeling on a standard form, which will be referred to as the thought/feeling log. This form contained a column in which to write when the thought and feeling occurred (as indicated by the time display on the DVD recording) as well as a column for reporting the content of the thought or feeling itself.

2.2.5 Post-interaction Questionnaire

After the two dyad members completed their respective thought/feeling logs, they were then asked to complete a post-interaction questionnaire. This questionnaire was designed to assess each participant's perception of various aspects of the interaction. For each question that asked for the respondent's perception of the interaction, there was also a similar question

that asked the respondent to infer their dyad partner's corresponding perception. For example, "To what degree did the interaction seem smooth, natural, and relaxed to you?" and "To what degree do you think the interaction seemed smooth, natural, and relaxed to the other person?" Other questions that appeared on the questionnaire included "To what extent did you feel accepted and respected by the other person?" and "To what extent do you think the other person felt rejected or disrespected by you?" In addition, the questionnaire contained a second section in which the participants rated their interaction partner on various personality traits that included attributes such as intelligence, respectfulness, and kindness (see Appendix B).

2.2.6 Saliva Sample Measures of Cortisol

Four saliva samples were collected for each dyad using salivettes. These devices consisted of two concentric test tubes. The smaller interior test tube contained a cotton swab for absorbing saliva. Once the swab was saturated, it was placed in the interior tube and resealed in the outer tube. Each dyad member's saliva was sampled twice: once shortly before the interaction and again 20 minutes after the end of the interaction.

2.3 Procedure

Because of the natural diurnal fluctuations in cortisol levels (Ice, Katz-Stein, Himes, & Kane, 2004; Touitou & Bogdan, 1994), all dyads were run in the afternoon between 2:00 and 4:30 p.m. Once the two members of a dyad were scheduled, they were separately instructed to report to (different) waiting areas. One of the participants reported to the area of the laboratory suite and the other participant reported to the experimenter's office. This precaution was necessary to ensure that the participants did not have an opportunity to meet and interact outside of the controlled observation setting. The experimenter met one of the participants and an undergraduate research assistant met the other participant in these designated areas. Once a participant had been met by either the experimenter or the research assistant, he or she was then escorted to one of the cubicles in the Social Interaction Lab. There, the participant was given a consent form to read over, and was asked to wait while the experimenter (or the

research assistant) left to retrieve some additional forms that were needed for the study. Each participant was left alone for ten minutes. This waiting period was intended to allow the participants to get acclimated to the test environment before the first saliva sample was obtained and to decrease the likelihood of there being a spike in cortisol in the baseline sample due to general anxiety regarding the study.

Precisely ten minutes later, the first saliva sample was collected from both participants in their respective cubicles. As mentioned before, this involved the participants dropping a cotton swab from a tube into their mouth. Participants were instructed to place the swab between their cheek and gum for two minutes and then spit it directly back in the tube. Electronic timers were taken into the cubes when collecting the saliva samples to ensure that the participants kept the swab in their mouth for the full two minutes.

Next, the participants were each given a clipboard that contained a copy of the political orientation test. While the participants independently completed this measure, the experimenter and the research assistant took both saliva samples into the control room and placed them in a freezer. The assistant then remained in the control room to operate the recording equipment. This room contained monitors that showed what was happening in the observation room; it enabled the assistant to know when to press the record button at the start of the participants' initial, unstructured interaction.

After the participants completed the political orientation test, the experimenter collected the participants from the cubicles and led them into the observation room. There, the participants were asked to take a seat on the couch with their clipboard that contained the political orientation test. The experimenter then said the following, "For this study, we are going to ask you to discuss a variety of social issues. In order for you to do that, it is important that you know how your partner feels about these issues. At this point, I would like for you to switch your clipboards and take a moment to carefully review each of your partner's responses to the questions. Exactly 30 seconds later, the research assistant pressed the record button on the

two DVD recorders and then hurried into the observation room to tell the experimenter that she had received an important phone call. The experimenter then told the participants to please wait while she took the call. The experimenter left the observation room and did not return until 10 minutes later. While she was gone, two copies of the participants' interaction were recorded simultaneously onto two separate DVDs via two DVD recorders that were connected to the video camera in the storage room across the hall.

The experimenter returned precisely ten minutes later and probed the participants for suspicion of their interaction being recorded. If either participant displayed an obvious level of suspicion, the data from that interaction was omitted. If neither participant showed signs of suspicion, the experimenter explained that their interaction had been covertly recorded and the reason for the deception. The participants were then given the option to allow the recording to be used for data or to have it erased and terminate their participation. This involved them signing a video release form. The experimenter informed the participants that regardless of which option they chose, they would still receive full credit for participating. None of the participants chose to have the video erased. While the experimenter debriefed the participants and explained the video release forms, the research assistant prepared the two DVDs for viewing in each cubicle.

If both participants gave written consent to use their DVD as a source of data, they were then taken back to their separate cubicles. Each participant was told that he or she was going to view the interaction DVD and pause it each time the participant remembered having a specific thought or feeling. The participants were instructed to write down on the thought/feeling log the hour, minute, and second indicated by the time display on the TV monitor and then write out the content of the specific thought or feeling being reported at that "tape stop." This procedure provided another self-report measure to possibly analyze later as well as a task for the participants to complete during the 20 minute period before the post-interaction saliva sample was obtained. After each participant completed this review-and-report phase of the

procedure, the post-interaction questionnaire was administered to each participant. The participants were interrupted exactly 20 minutes after the end of the interaction to obtain the second saliva sample.

Finally, the two dyad members were fully debriefed in individual debriefing sessions. The experimenter also explained the importance of not discussing the experiment with other students because they may be potential participants and having this knowledge could compromise the goals of the study.

After each session, the salivettes were taken to an on-campus laboratory where they were spun and frozen at -20°C by a lab technician until future assay. The Enzyme-Linked Immunoabsorbance Assay (ELISA) procedure was used to measure the quantity of cortisol found in each sample.

CHAPTER 3

RESULTS

3.1 Data Screening

Prior to formal hypothesis testing, the data were screened for missing values, outliers, and to ensure that they met the assumptions of the various tests used. None of the variables had more than 5% missing values. In addition, although there were a few outliers, they were all determined to be legitimate values and were therefore retained in the analyses. Although a number of the behavioral measures were not normally distributed, transformations did not substantially change the results, so the original untransformed variables were used for the analyses reported. Table 1 provides the descriptive statistics for the various dependent measures tested. Finally, the assumptions of homogeneity of variances, homoscedasticity, sphericity, etc., were tested where necessary. In the rare cases where these assumptions were violated, appropriate corrections were applied (e.g., adjusted alpha level, etc.).

3.2 Manipulation Check

To ensure that there were actual differences between the participants that were recruited as liberals and the participants that were recruited as conservatives, an independent samples t-test was conducted using the participants' political orientation score from the second administration of the political orientation test (the administration during the actual experiment) as the outcome measure. The results revealed that there were indeed significant differences between those recruited as liberals ($M = 3.14$, $SE = .08$) and those recruited as conservatives ($M = 4.70$, $SE = .09$), $t(84) = -13.06$, $p < .01$.

As a secondary manipulation check, an item was included on the post-interaction questionnaire to test whether the dyad members actually perceived that they were less similar in the enemy condition compared to the ally condition. This item was used to ensure that the

pairing of political opposites and politically similar people actually caused the participants to perceive themselves as having different views. This item read, “to what extent did you and the other person seem to have a similar view of things?”

Kenny, Kashy, and Cook (2006) suggest that before data analytic procedures are chosen for dyad studies, it is first necessary to establish whether there is nonindependence between the members of the dyad on the outcome measure. This can be assessed using the intra-class correlation coefficient and Kenny et al. (2006) suggest that a liberal alpha level of .20 should be adopted. Table 1 displays the intra-class correlation (ICC) coefficients for the various dependent measures tested. The ICC for the perceived similarity item was highly significant, therefore multilevel modeling was used to test the effect of the between-dyads factor of condition on the perceived similarity. This data analytic approach was chosen for the present manipulation check and in tests of many of the subsequent hypotheses, when the dyad members' scores in the dependent measure were nonindependent. This approach is superior to other dyadic data analysis procedures such as a dyad-level ANOVA, because it allows for missing values for one member of a dyad or group, and also allows for unequal sample sizes between conditions (Kenny, Kashy, and Cook, 2006). Condition was recoded using effects codes (enemy = 1, ally = -1). The results of this manipulation check revealed that condition significantly predicted perceived similarity, $b = -1.12$, $t(40.98) = -4.62$, $p < .001$, such that participants in the enemy condition perceived themselves as less similar $M = 5.61$, $SE = .35$)

Table 3.1 Descriptives of Hypothesis Dependent Measures and Intra-Class Correlations Between Dyad Members

	ICC	<i>p</i>	<i>M</i>	<i>SD</i>	Skew	Kurtosis
Liking for partner	0.29	< .01	7.13	1.78	-0.71	-0.13
Smoothness of interaction	-0.01	> .20	6.43	1.97	-0.38	-0.29
Intimate self-disclosure	0.89	< .001	2.46	3.01	1.39	1.41
Verbal reinforcements	0.34	< .01	9.95	8.43	1.4	1.82
Smiles/laughter	0.73	< .001	13.85	9.92	0.51	0.52
Total duration of smiling/laughter	0.87	< .001	42.12	43.73	1.92	4.92
Total duration of mutual gazes	-	-	54.85	57.85	1.38	1.03
Interpersonal distance	-	-	7.65	2.06	0.31	0.66
Pre-interaction cortisol	-0.011	> .20	0.2	0.16	2.27	4.96
Post-interaction cortisol	0.03	> .20	0.16	0.1	0.27	0.53

Note. Mutual gazes and interpersonal distance do not have ICC's, because these measures were the same for each dyad member.

than participants in the ally condition ($M = 7.87, SE = .22$).

3.3 Hypothesis Tests

The dependent measures for the formal hypotheses included self-report, behavioral, and cortisol measures. The intercorrelations of these measures are reported in Table 3.2.

Table 3.2 Zero-order Intercorrelations for Dependent Measures

	1	2	3	4	5	6	7
1. Liking for partner	1						
2. Smoothness of interaction	0.42**	1					
3. Verbal reinforcements	0.37**	0.28**	1				
4. Intimate self-disclosure	0.18	0.25*	0.18	1			
5. Smiles/laughter	0.32**	0.1	0.32**	-0.12	1		
6. Total duration of smiles/laughter	0.14	0.12	0.14	-0.13	0.85**	1	
7. Post-interaction cortisol	-0.19	0.01	-0.19	-0.1	0.06	0.12	1

Note. Mutual gazes and interpersonal distance are not included because these measures were at the dyad level.

3.3.1. Self-Report Measures

The hypotheses involving self-report dependent measures concerned how smooth the interaction was perceived and the degree to which the participant liked their interaction partner. A principal components analysis using varimax rotation was conducted to determine which of the items of the post-interaction questionnaire formed the factors of interest. Four components had eigenvalues above Kaiser's recommended value of 1 and, taken together, explained 69.31% of the variance. Table 3.3 displays the factor loadings following rotation. The first factor was composed of items that assessed liking for partner such as, "How much did you like the other person?" and "To what extent would you like to interact more with the other person in the

future?” The second factor was composed of items that assessed the smoothness of the interaction such as, “To what extent did the interaction seem awkward, forced, or strained to you?” and “How self-conscious did you feel when you were with the other person?” These two factors were used as the dependent measures for the tests of Hypothesis 1 and 2. The third factor was composed of items that assessed the degree to which the participant attempted to “get in sync” with or accommodate their interaction partner such as “How much did you use the other person's behavior as a guide for your own behavior?” The fourth factor was composed of items that assessed the degree of animosity that the participant felt toward their interaction partner such as, “What level of animosity did you feel towards the other person?” This factor structure closely resembled that found in previous dyad studies that employed a very similar post-interaction questionnaire (e.g., Cuperman, 2008).

Hypothesis 1 stated that participants in the ally condition should report higher levels of liking for partner than participants in the enemy condition. This hypothesis was tested using multilevel modeling. Dyad condition (ally and enemy) was entered into the model, along with gender composition (female-female = 1, male-male = -1) and the interaction between condition and gender composition. The results did not support the hypothesis. That is, there was no significant effect for condition, $b = -.24$, $t(36.8) = -1.03$, $p > .05$. There was also no effect for gender composition, $b = .05$, $t(36.8) = .20$, $p > .05$ or the interaction between condition and gender composition, $b = -.23$, $t(36.8) = -1.01$, $p > .05$.

Hypothesis 2 stated that participants in the ally condition should perceive their interaction as being more smooth and relaxed than participants in the enemy condition. Because the ICC for the smoothness of the interaction did not approach Kenny, Kashy, and Cook's (2006) recommended alpha level for establishing nonindependence, this hypothesis was tested at the individual level. Condition was again treated as the primary independent variable, with gender composition also included as an additional independent variable. There was no

effect for condition, $F(1, 81) = .30, p > .05, \eta^2 = .00$, gender composition, $F(1, 81) = .17, p > .05, \eta^2 = .00$.

Table 3.3 Factor Loadings for the Post-Interaction Questionnaire

	Factor 1	Factor 2	Factor 3	Factor 4
To what extent did you feel accepted and respected by the other person?	0.72	-	-	-
To what extent would you like to interact more with the other person in the future?	0.85	-	-	-
How much did you enjoy your interaction with the other person?	0.83	-	-	-
What level of friendliness did you feel towards the other person?	0.82	-	-	-
How much did you like the other person?	0.85	-	-	-
How self-conscious did you feel when you were with the other person? (R)	-	0.57	-	-
To what degree did the interaction seem awkward, forced, and strained to you? (R)	-	0.85	-	-
To what degree did the interaction seem smooth, natural, and relaxed to you?	-	0.82	-	-
How comfortable did you feel around the other person?	-	0.64	-	-
How much did you use the other person's behavior as a guide for your own behavior?	-	-	0.85	-
To what extent did you try to accommodate the other person by adapting your behavior to "fit in" with his/hers?	-	-	0.78	-
To what extent did you feel rejected or disrespected by the other person?	-	-	-	0.81
What level of animosity did you feel towards the other person?	-	-	-	0.72

Note. Items with (R) indicate that the item was reverse coded when computing the score, reliabilities, and factor loadings.

3.3.2 Behavioral Measures

The hypotheses that involved behavioral dependent measures included measures of both verbal and nonverbal behaviors. All behaviors were coded by at least two undergraduate research assistants, with the exception of interpersonal distance, which was simply measured by one assistant. The inter-rater reliabilities ranged from .69 for intimate self-disclosure to .94 for verbal reinforcements (see Table 3.4 for each inter-rater reliability). Each dependent measure was created by taking the average scores, across coders, for each participant or dyad.

Table 3.4 Inter-Rater Reliability for Coded Behaviors

	Single Measures Absolute Agreement ICC	<i>p</i>
Intimate self-disclosure	0.69	< .001
Smiles/laughter	0.86	< .001
Total duration of smiling/laughter	0.91	< .001
Verbal reinforcements	0.94	< .001
Mutual gazes	0.96	< .001

3.3.2.1 Verbal Measures.

The verbal measures that were obtained were instances of intimate self-disclosure and verbal reinforcements (e.g, yeah, uh-huh). The between-dyad member ICC's for both of these behaviors were highly significant (see Table 3.1), therefore multilevel modeling was chosen to test the hypotheses concerning these dependent measures.

Hypothesis 3 stated that the participants in the ally dyads would provide their partner with more verbal reinforcements than participants in the enemy dyads. The same data analytic procedure that was used to test the previous hypothesis was used to test this hypothesis,

however, in this case, the dependent measure was the number of verbal reinforcements. The results did not support the hypothesis. Neither the condition, $b = -.76$, $t(38) = -.69$, $p > .05$ gender composition, $b = .16$, $t(38) = .15$, $p > .05$, nor their interaction, $b = -.11$, $t(38) = -.10$, $p > .05$ had significant effects on verbal reinforcements.

Hypothesis 4 stated that the participants in the ally dyads would disclose more personal information than the participants in the enemy dyads. Again, condition (ally and enemy), gender composition (M-M and F-F), and their interaction were treated as between-dyad predictors and the number of intimate self disclosures was treated as the dependent measure. The results did not support the hypothesis. There was no effect for condition, $b = -.57$, $t(39) = -1.27$, $p > .05$ gender composition, $b = .50$, $t(39) = .55$, $p > .05$ or their interaction, $b = .50$, $t(39) = 1.11$, $p > .05$.

3.3.2.2 Nonverbal Measures

The nonverbal measures tested included mutual gazes, interpersonal distance, and positive affect (e.g., smiles and laughter). Hypothesis 5 stated that the enemy/ally condition would affect the nonverbal behavior of the participants. In addition, it was expected that nonverbal behavior would differ according to the dyads' gender composition. The first specific prediction (hypothesis 5a) regarding nonverbal behavior stated that participants in the ally condition would display more smiles and laughter than the participants in the enemy dyads. It was further predicted that female dyads would display more smiles and laughter than the male dyads. This hypothesis was tested using the same multilevel modeling procedures as before. In the first model, the number of individual smiles and laughter was treated as the dependent measure. The individual total duration of smiles and laughter was treated as the dependent measure for the second model. There was no effect for condition, $b = -.19$, $t(38) = -.13$, $p > .05$, gender composition, $b = -.58$, $t(38) = -.40$, $p > .05$ or their interaction, $b = 1.12$, $t(38) = .75$, $p > .05$. There was also no effect for condition, $b = 4.42$, $t(38) = .65$, $p > .05$, gender composition, b

= -.94, $t(38) = -.14$, $p > .05$, or their interaction, $b = 2.46$, $t(38) = .37$, $p > .05$ on the total duration of smiles and laughter.

Hypothesis 5b stated that participants in the ally dyads would sit closer to each other on the couch than those participants in the enemy dyads. In addition, it was expected that participants in the female dyads would sit closer to each other than participants in the male dyads. This dependent measure was created by taking the average distance apart, which was assessed 30 seconds into the interaction and again at 9 minutes and 30 seconds into the interaction. Because the measure was exactly the same for both participants, this hypothesis was tested using a dyad-level factorial ANOVA.

The results revealed, a significant effect for condition, $F(1, 38) = 4.22$, $p < .05$, $\eta^2 = .10$. This effect was in the opposite direction that was predicted. There was less distance between the participants in the enemy condition ($M = 7.06$, $SE = .43$) than between the participants in the ally condition ($M = 8.32$, $SE = .45$). There was, however, no significant effect for gender composition, $F(1, 38) = 1.75$, $p > .05$, $\eta^2 = .04$ or the interaction between condition and gender composition, $F(1, 38) = .01$, $p > .05$, $\eta^2 = .00$. However, a closer inspection of the effect for condition, which involved looking at each assessment of distance as an individual outcome measure, revealed that participants in the enemy condition ($M = 6.90$, $SE = .44$) were actually sitting closer to each other at the first assessment of distance than participants in the ally condition ($M = 7.99$, $SE = .46$). This effect was marginally significant, $F(1,38) = 2.90$, $p = .09$, $\eta^2 = .07$.

Because the participants sat down on the couch before they exchanged their political orientation tests, this difference in interpersonal distance was probably due to chance and was likely one that worked against the other research hypotheses. If participants were sitting closer to each other in the enemy condition, they may have felt more compelled to behave in an amicable manner, because their interaction partner was less avoidable than in the ally condition.

Hypothesis 5c stated that there would be more mutual gazes in the ally condition than in the enemy condition. It was also expected that there would be more mutual gazes in the female dyads than in the male dyads. Again, this was measured using a dyad-level ANOVA, because the dependent measure was the same for both participants in each dyad. This hypothesis was not supported as there was no significant effect for condition, $F(1,38) = .14, p > .05, \eta^2 = .00$, gender composition, $F(1, 38) = 1.69, p > .05, \eta^2 = .04$, nor their interaction, $F(1, 38) = .00, p > .05, \eta^2 = .00$.

3.3.3 Cortisol Measures

Hypothesis 6 predicted that participants in the ally condition would have comparable or lower levels of cortisol in their post-interaction saliva sample than in their pre-interaction saliva sample, whereas the participants in the enemy condition would have higher levels of cortisol in their post-interaction saliva sample than in their pre-interaction saliva sample. In addition, it was expected that there would be higher levels of cortisol in the post-interaction saliva sample in the enemy condition than in the ally condition. Because the between-dyad members ICC was not significant for either the pre-interaction or post-interaction saliva sample, this hypothesis was tested at the individual level using a mixed-model ANOVA. The within-subjects factor was the time the saliva sample was obtained (pre-interaction sample and post-interaction sample). The between-subjects factor was the dyad condition (ally and enemy). There was a significant main effect for time, $F(1, 79) = 11.99, p < .01, \eta^2 = .13$, such that the pre-interaction saliva samples had higher levels of cortisol ($M = .20, SE = .02$) than the post-interaction saliva samples ($M = .16, SE = .01$). There was no main effect for condition, $F(1, 79) = .62, p > .05, \eta^2 = .008$. There was also no interaction effect, $F(1, 79) = .005, p > .05, \eta^2 = .008$.

The initial analysis of this hypothesis suggested that the pre-interaction saliva sample was not a valid baseline measure of cortisol, therefore a second analysis was conducted so that pre-interaction cortisol could be treated as a covariate. A regression analysis was conducted

with condition and pre-interaction cortisol levels as predictors of post-interaction cortisol. There was, however, still no effect for condition, $b = .01$, $t(78) = .68$, $p > .05$, $s^2 = .05$.

3.4 Additional Analyses

Although there was no support for the formal hypotheses, a variety of exploratory tests were conducted. The post-interaction questionnaire included several items where the participants rated their partner on a variety of personality characteristics. Each of these items was treated as a dependent measure with the condition treated as a between-dyads predictor. Condition significantly predicted how informed the participant thought their interaction partner was, $b = -.55$, $t(38.54) = -2.22$, $p < .05$. The coding scheme indicated that participants in the enemy condition rated their interaction partner as significantly less informed than participants in the ally condition. There was no effect for the gender composition, $b = .07$, $t(38.54) = .29$, $p > .05$ or the interaction between condition and the dyad gender composition, $b = -.27$, $t(38.54) = -1.07$, $p > .05$. There were also no effects for these factors for any of the other items.

One of the factors that emerged out of the post-interaction questionnaire contained the items, “what level of animosity did you feel towards the other person” and “to what extent did you feel rejected or disrespected by the other person?” Condition significantly predicted the level of animosity felt toward the interaction partner, $b = .52$, $t(39.38) = 2.75$, $p < .05$. There was no effect for the gender composition, $b = .15$, $t(39.38) = .77$, $p > .05$, or the interaction between condition and gender composition, $b = .33$, $t(39.38) = 1.74$, $p > .05$.

Cuperman and Ickes (2009) found that individuals scoring low on agreeableness were more likely to have negative interactions with a stranger. It was, therefore, thought that agreeableness might moderate the effects of the condition. For instance, if a disagreeable participant was paired with a person of the opposite political orientation, they may be more combative towards a person with opposing political views and their interaction would be more negative. Likewise, the partner’s agreeableness score could moderate the effects of the condition. APIM analyses (APIM; Campbell & Kashy, 2002; Kenny, Kashy & Cook, 2006) were

conducted with the first order terms for both actor and partner agreeableness as well as the condition included in the model. All possible two-way interactions were also included in the model as well as the three-way interaction between actor agreeableness, partner agreeableness, and condition. There was a significant effect for the partner agreeableness by condition interaction on the perceived smoothness of the interaction. Table 5 provides the parameter estimates for each of the predictors included in this model. Probing of this interaction revealed that partner agreeableness moderated the effect of the condition, such that at low levels of partner agreeableness (-1 SD), condition had a marginally significant effect on the perceived smoothness of the interaction, $b = -.22$, $t(64.05) = -1.88$, $p = .06$. This indicated that participants in the enemy condition were less likely to rate that their interaction went smoothly if their partner was low on agreeableness. There was no significant effect of condition at high levels of partner agreeableness. Although this interaction between condition and partner agreeableness was the only significant effect to emerge, there were similar trends and alpha values approaching significance with some of the other dependent measures.

Table 3.5 Actor-Partner Interdependence Model for Agreeableness, Condition, and Interactions
Self-Reported Smoothness of the Interaction

	<i>b</i>	<i>SE</i>	<i>df</i>	<i>t</i>	<i>p</i>
Condition	-0.07	0.23	36.78	-0.32	0.76
Actor Agreeableness	0.05	0.4	74.18	0.13	0.89
Partner Agreeableness	0.01	0.4	74.22	0.04	0.97
Condition X Actor Agreeableness	0.09	0.4	74.18	0.25	0.81
Condition X Partner Agreeableness	0.83	0.4	74.21	2.05	0.04
Actor Agreeableness X Partner Agreeableness	-1.17	0.73	36.16	-1.58	0.12
Condition X Actor Agreeableness X Partner Agreeableness	-0.99	0.74	36.16	-1.34	0.18

These effects must be interpreted with caution, because a large number of tests were conducted and the alpha values were only slightly below the .05 level. It could be that these effects were due to Type I error, however, given a larger sample size, we might expect these effects to be stronger.

CHAPTER 4

DISCUSSION

The purpose of this study was to determine if meeting a stranger with opposing political views is enough to lead to a negative interaction and a feeling of animosity. In contrast, does meeting a stranger with similar political views lead to a positive interaction and a feeling of goodwill? Although the manipulation check data indicated that the manipulation of perceived political difference versus similarity was successful, the results did not support any of the formal hypotheses. There were no differences in the self-report, behavioral, or physiological dependent measures between participants who were paired with a political opposite and participants who were paired with a politically similar individual.

In retrospect, there are several possible explanations for the null findings. For one, the participants in the enemy condition may have been attempting to temporarily regulate their behavior so that the interaction would be as harmonious as possible. College students may be particularly good at this given that they must often interact in classrooms where there are a variety of different political, cultural, philosophical, and religious views that become salient during class discussions. Moreover, the fact that the participants in the enemy condition sat closer to each other than participants in the ally condition (even before they switched the political orientation tests) may have caused the interaction to go more smoothly, because they were forced to interact with their partners who were less avoidable than partners in the ally condition. In addition, for most of the dyads, the topic of politics never came up. This omission suggests that the participants in the enemy condition might have been trying to engage each other in topics other than politics, possibly to avoid an uncomfortable situation.

Furthermore, if both individuals were exerting this effort, it may have created a situation of “optimal intergroup contact.” Allport (1954) believed that in order for attitudes to become more

favorable toward an outgroup, contact between groups must occur and the contact must be mutually respectful. Pettigrew (1998) proposed an explanation for how this might improve attitudes. New situations often require the modification of behavior to meet certain expectations. In the case where those expectations require the acceptance of individuals belonging to an outgroup, attitude change may occur. Dissonance may set in, because the individuals recognize the inconsistency between their current behavior and their prior beliefs regarding the outgroup. The individuals may then change their attitudes in order to reduce dissonance (Aronson & Patnoe, 1997). Pettigrew's explanation may be particularly illuminating in the present study. The participants may have been carefully regulating their behavior and this in turn caused them to judge their interaction partner more favorably. This compensation process might explain why there was no sufficient evidence of animosity in their behavioral and self-report measures, and this might also explain why they were unwilling to rate their partner negatively on any of the personal characteristics except for how informed they were.

It is also possible that the phenomena of "instant enemies" and "instant allies" is the exception rather than the rule when individuals with dissimilar or similar attitudes interact. These rare cases may occur only when other factors are present. Certain personality factors could perhaps moderate these outcomes. In the current study, there was some preliminary evidence of the moderating effect of the partner's level of agreeableness on the relationship between the condition and the perceived smoothness of the interaction. This evidence suggests that an interaction is likely to be perceived as especially poor when 1.) two people have dissimilar attitudes and 2.) at least one of them scores low on agreeableness. However, it is important to reiterate that these effects were only marginally significant and are inconclusive given the relatively complex model tested and the small sample size.

Finally, the present results suggest that previously found relationships between attitude similarity and attraction and attitude dissimilarity and repulsion using the bogus stranger paradigm should be interpreted with caution. In the context of an actual interaction between two

people, there may be a variety of factors that could override the effects of attitude similarity/dissimilarity.

4.1 Limitations

The present study had several limitations, some of which may help to explain the lack of support for the hypotheses. As mentioned before, the sample size was very small; therefore there was only enough power to detect relatively large effect sizes. With additional participants, there might have been support for some of the hypotheses.

In addition, the setting may, in retrospect, have been problematic. Although this study was an improvement upon previous studies in terms of capturing a more natural interaction between individuals, it did take place in a laboratory setting in a university psychology department. Participants may have been more on guard and attempting to conform to expectations of appropriate and polite behavior.

Finally, using college students may have been problematic for two reasons. For one, these were students taking psychology courses where they learn about social psychology experiments and the frequent use of deception. A few participants indicated that they were indeed suspicious that the experimenter was hiding something; however, they were not sure what exactly was being concealed. The second reason that college students may have been non-optimal participants in this research was alluded to above. College students may be particularly accustomed to monitoring and regulating their behavior to display tolerance and acceptance when they are around individuals with differing beliefs.

4.2 Future Directions

Future investigations of the “instant enemy” and “instant ally” phenomena may benefit from obtaining a larger sample so that the role of various personality factors in these cases could be investigated. For instance, self-monitoring may play a key role in these cases, such that participants who have a lower score on this construct may have more negative interactions when they interact with a political opposite.

In addition, because the lab setting may suppress the emergence of these phenomena, future studies may benefit from studying them in more naturalistic contexts (e.g., political rallies, sporting events). However, such studies present a host of practical and methodological issues. For example, these phenomena occur infrequently and the occasions for their occurrence cannot easily be anticipated. In addition, it would be difficult to observe and code the data for such incidents in a systematic and consistent manner. Finally, it is difficult to establish any causal factors in such a purely observational study.

4.3 Concluding Remarks

In sum, this study failed in its attempt to create “instant enemies” and “instant allies” within a laboratory setting. The lack of support for the hypotheses coupled with the few preliminary, unpredicted moderating effects of personality suggest that the phenomena of “instant enemies” and “instant allies” is probably more complex than originally thought. In the more general sense, this is encouraging, because it suggests that these cases are relatively rare and that certain critical factors must be present in order for them to occur. This is a cheering thought at least with regard to the “instant enemy” phenomenon. However, because these cases do sometimes occur and have devastating effects (e.g., hate crimes), the “instant enemy” phenomenon is sufficiently important that this area of research should receive more attention in the future - not less.

APPENDIX A

POLITICAL ORIENTATION TEST

We are interested in your opinion on various social issues. For each statement below, please indicate your level of agreement or disagreement by writing a number from the scale below on the line that follows each statement.

1 = strongly disagree

2 = moderately disagree

3 = slightly disagree

4 = neither agree nor disagree

5 = slightly agree

6 = moderately agree

7 = strongly agree

- 1.) Funding for social programs like welfare should be increased. _____
- 2.) People who don't support our country's leadership in a time of war should keep quiet.

- 3.) The death penalty should be outlawed. _____
- 4.) Military spending should be increased. _____
- 5.) Same-sex (gay) marriages should be legalized. _____
- 6.) Universal healthcare is not right for America. _____
- 7.) Abortion should be illegal. _____
- 8.) I support affirmative action programs. _____
- 9.) The current social security program should be replaced with one encouraging private investment. _____
- 10.) Students who refuse to pledge allegiance to the flag in school should be punished.

- 11.) Church and state should be separate. _____
- 12.) Individuals are ultimately responsible for their financial situation. _____

- 13.) Strong situational forces often cause lazy people to be wealthy. _____
- 14.) America almost always supports the “good guys” when we take sides in a conflict.

- 15.) American soldiers should use any means they can (including torture) to get information out of potential terrorists. _____
- 16.) The Creationist Perspective should not be taught in schools. _____
- 17.) The United States should declare English as its official language. _____
- 18.) More restrictions should be placed on gun ownership. _____
- 19.) A decline in family values is at the root of most social problems. _____
- 20.) Poverty is at the root of most social problems. _____

APPENDIX B

POST-INTERACTION QUESTIONNAIRE

PERCEPTIONS OF INTERACTION

In the following questions we are interested in assessing your perceptions of the interaction between you and the other subject over the 10-minute period that you waited together. Indicate your answers by circling the point on each scale that best describes your feelings or perceptions. Please reflect on how you felt during the interaction and try to answer each question as accurately and honestly as possible. Your answers will *not* be shown to the other subject and will be used for statistical purposes only. You may skip any questions you feel uncomfortable answering.

1. How much did you feel a need to communicate with the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

2. How much do you think the other person felt a need to communicate with you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

3. How much did you use the other person's behavior as a guide for your own behavior?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

4. How much do you think the other person used your behavior as a guide for his/her behavior?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

5. How self-conscious did you feel when you were with the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

6. How self-conscious do you think the other person felt when he or she was with you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

7. To what degree did the interaction seem *awkward, forced, and strained* to you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

8. To what degree do you think the interaction seemed *awkward, forced, and strained* to the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

9. To what degree did the interaction seem *smooth, natural, and relaxed* to you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

10. To what degree do you think the interaction seemed *smooth, natural, and relaxed* to the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

11. To what extent did you feel *rejected or disrespected* by the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

12. To what extent do you think the other person felt *rejected or disrespected* by you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

13. To what extent did you feel *accepted and respected* by the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

14. To what extent do you think the other person felt *accepted and respected* by you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

15. To what extent would you like to interact more with the other person in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

16. To what extent do you think the other person would like to interact more with you in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

17. How much did you enjoy your interaction with the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

18. How much do you think the other person enjoyed the interaction with you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

19. To what extent did you try to accommodate the other person by adapting your behavior to "fit in" with his/hers?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

20. To what extent did the other person try to accommodate you by adapting his/her behavior to "fit in" with yours?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

21. How comfortable did you feel around the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

22. How comfortable do *you* think the other person felt around you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

23. What level of animosity did you feel towards the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

none at all

very much

24. What level of animosity do you think the other person felt towards you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

none at all

very much

25. What level of friendliness did you feel towards the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

none at all

very much

26.) What level of friendliness do you think the other person felt towards you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

none at all

very much

27. To what extent did you and the other person seem to have a similar view of things?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

28. How much did you like the other person?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

29. How much do *you* think the other person liked you?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

not at all

very much

Please rate the other person on the following dimensions:

Unfriendly	-4	-3	-2	-1	0	1	2	3	4	Friendly
Uninformed	-4	-3	-2	-1	0	1	2	3	4	Informed
Uncaring	-4	-3	-2	-1	0	1	2	3	4	Caring
Disrespectful	-4	-3	-2	-1	0	1	2	3	4	Respectful
Unpleasant	-4	-3	-2	-1	0	1	2	3	4	Pleasant
Unintelligent	-4	-3	-2	-1	0	1	2	3	4	Intelligent
Rude	-4	-3	-2	-1	0	1	2	3	4	Considerate
Unkind	-4	-3	-2	-1	0	1	2	3	4	Kind

REFERENCES

- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Berrill, K. (1990). Anti-gay violence and victimization in the United States: An overview. *Journal of Interpersonal Violence, 5*, 274-294.
- Brown, R. (2000). *Group processes: Dynamics within and between groups* (2nd ed.). Oxford: Blackwell.
- Byrne, D. (1961). Interpersonal attraction and attitude similarity. *The Journal of Abnormal and Social Psychology, 62*, 713-715.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic.
- Byrne, D. (1997). An overview (under review) of research and theory within the attraction paradigm. *Journal of Social and Personal Relationships, 14*, 417-431.
- Byrne, D., Baskett, G., & Hodges, L. (1971). Behavioral indicators of interpersonal attraction. *Journal of Applied Social Psychology, 1*(2), 137-149.
- Campbell, L., & Kashy, D. A. (2002). Estimating actor, partner, and interaction effects for dyadic data using PROC MIXED and HLM: A user-friendly guide. *Personal Relationships, 9*(3), 327-342.
- Certner, B. (1973). Exchange of self-disclosures in same-sexed groups of strangers. *Journal of Consulting and Clinical Psychology, 40*, 292-297.
- Cheng, W., Ickes, W., & Kenworthy, J. B. (In Press). The phenomena of hate crime in the United States. *Journal of Applied Social Psychology*.
- Cuperman, R. (2008). The influence of a strong versus weak sense of self in same-sex dyadic interactions (Master's thesis). University of Texas at Arlington, Arlington, TX.

- Dovidio, J., Kawakami, K., Johnson, C., Johnson, B., & Howard, A. (1997). On the nature of prejudice: Automatic and controlled processes. *Journal of Experimental Social Psychology, 33*(5), 510-540.
- Edwards, D., Wetzel, K., & Wyner, D. (2006). Intercollegiate soccer: Saliva cortisol and testosterone are elevated during competition, and testosterone is related to status and social connectedness with teammates. *Physiology & Behavior, 87*(1), 135-143.
- Ellsworth, P., & Carlsmith, J., & Merrill (1968). Effects of eye contact and verbal content on affective response to a dyadic interaction. *Journal of Personality and Social Psychology, 10*(1), 15-20.
- Fehr, B. (2004). Intimacy expectations in same-sex friendships: A prototype interaction-pattern model. *Journal of Personality & Social Psychology, 86*, 265–284.
- Flinn, M., & England, B. (1995). Childhood stress and family environment. *Current Anthropology, 36*, 854-866.
- Fukuhara, S. (1990). The effect of eye contact and verbal content about impression on affective reactions of the other partner. *Japanese Journal of Psychology, 61*(3), 177-183.
- Garcia, S., Stinson, L., Ickes, W., Bissonnette, V., & Briggs, S. (1991). Shyness and physical attractiveness in mixed-sex dyads. *Journal of Personality and Social Psychology, 61*(1), 35-49.
- Gelman, R., & McGinley, H. (1978). Interpersonal liking and self-disclosure. *Journal of Consulting and Clinical Psychology, 46*, 1549-1551.
- Griffitt, W., & Veitch, R. (1974). Preacquaintance attitude similarity and attraction revisited: Ten days in a fall-out shelter. *Sociometry, 37*, 163-173.
- Heider, F. (1958). *The psychology of interpersonal relations*. Hoboken, NJ US: John Wiley & Sons Inc.
- Herek, G., Cogan, J., & Gillis, J. (2002). Victim Experiences in Hate Crimes Based on Sexual Orientation. *Journal of Social Issues, 58*, 319.

- John, O.P., Donahue, E.M., & Kentle, R.L. (1991). *The Big Five Inventory- Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- Ice, G., Katz-Stein, A., Himes, J., & Kane, R. (2004). Diurnal cycles of salivary cortisol in older adults. *Psychoneuroendocrinology*, 29(3), 355-370.
- Ickes, W. (1984). Compositions in Black and White: Determinants of interaction in interracial dyads. *Journal of Personality and Social Psychology*, 47, 330-341.
- Ickes, W., & Barnes, R. (1977). The role of sex and self-monitoring in unstructured dyadic interactions. *Journal of Personality and Social Psychology*, 35(5), 315-330.
- Ickes, W., Robertson, E., Tooke, W., & Teng, G. (1986). Naturalistic social cognition: Methodology, assessment, and validation. *Journal of Personality and Social Psychology*, 51, 66-82.
- Ickes, W., Schermer, B., & Steeno, J. (1979). Sex and sex-role influences in same-sex dyads. *Social Psychology Quarterly*, 42(4), 373-385.
- Ickes, W., Stinson, L., Bissonnette, V., & Garcia, S. (1990). Naturalistic social cognition: Empathic accuracy in mixed-sex dyads. *Journal of Personality and Social Psychology*, 59(4), 730-742.
- Ickes, W., Tooke, W., Stinson, L., & Baker, V. (1988). Naturalistic social cognition: Intersubjectivity in same-sex dyads. *Journal of Nonverbal Behavior*, 12(1), 58-84.
- Laurent, H. K., & Powers, S. I. (2006). Social-cognitive predictors of hypothalamic-pituitary-adrenal reactivity to interpersonal conflict in emerging adult couples. *Journal of Social and Personal Relationships*, 23, 703-720.
- Leary, T. (1957). *Interpersonal diagnosis of personality*. New York: Ronald.
- Kiesler, D. (1983). The 1982 Interpersonal Circle: A taxonomy for complementarity in human transactions. *Psychological Review*, 90(3), 185-214.

- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: Guilford Press.
- McDevitt, J., Levin, J., & Bennett, S. (2002). Hate Crime Offenders: An Expanded Typology. *Journal of Social Issues, 58*, 303.
- McConnell, A., & Leibold, J. (2001). Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology, 37*(5), 435-442.
- McEwen, B.S. (1998). Stress, adaptation, and disease: Allostasis and allostatic load. *Science 840*, 33-44.
- Morry, M. M. (2007). The attraction-similarity hypothesis among cross-sex friends: Relationship satisfaction, perceived similarities, and self-serving perceptions. *Journal of Social and Personal Relationships, 24*, 117-138.
- Newcomb, T. (1961). *The acquaintance process*. Oxford England: Holt, Rinehart & Winston.
- Pettigrew, T. (1982). *Prejudice*. Cambridge, MA: Harvard University Press.
- Popan, J. (2008). Reactions to depictions of intergroup similarity and distinctiveness among liberals and conservatives (Master's thesis). University of Texas at Arlington, Arlington, TX.
- Rosenbaum, M. (1986). The repulsion hypothesis: On the nondevelopment of relationships. *Journal of Personality and Social Psychology, 51*, 1156-1166.
- Singh, R., & Ho, S. (2000). Attitudes and attraction: A new test of the attraction, repulsion and similarity-dissimilarity asymmetry hypotheses. *British Journal of Social Psychology, 39*, 197-211.
- Singh, R., & Teoh, J. (1999). Attitudes and attraction: A test of two hypotheses for the similarity-dissimilarity asymmetry. *British Journal of Social Psychology, 38*(4), 427-443.

- Scherwitz, L., & Helmreich, R. (1973). Interactive effects of eye contact and verbal content on interpersonal attraction in dyads. *Journal of Personality and Social Psychology*, 25(1), 6-14.
- Touitou Y, Bogdan A. (1994). Endocrine and neuroendocrine axis testing in clinical medicine: Evidence for time dependency. In Y. Touitou & Haus (Eds.), *Biologic Rhythms in Clinical and Laboratory Medicine*. Berlin: Springer-Verlag.
- Wagner, J., Flinn, M., & England, B. (2002). Hormonal response to competition among male coalitions. *Evolution and Human Behavior*, 23(6), 437-442.
- Wiggins, J. S. (1982) Circumplex models of interpersonal behavior in clinical psychology. In P. C. Kendall & J. N. Butcher (Eds.), *Handbook of research methods in clinical psychology*. New York: Wiley.

BIOGRAPHICAL INFORMATION

Anna Park earned a Bachelor of Arts degree from Texas A&M University-Commerce where she majored in psychology and Spanish. Anna also earned Highest Honors for her undergraduate honors thesis, which investigated how personality traits are reflected in the characters people choose for role-playing games.

Upon graduating with her Bachelor's, Anna spent a year teaching high school Spanish and then a year as an accounting assistant before attending graduate school at the University of Texas at Arlington. Her research interests include individual differences and intergroup relations.