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Differential Effects of Rational and Emotional Framing on Ingroup and Outgroup Persuasion

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Differential Effects of Rational and Emotional Framing on

Ingroup and Outgroup Persuasion

by

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Master of Science

Department of Psychology

Seton Hall University

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We have examined Andrew G Finnegan. Student ID [redacted]

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Comments
Abstract

Ingroup and outgroup research has largely focused on why differing attitudes toward the ingroup and outgroup exist. Additionally, persuasion research has focused on the construction of persuasive messages using primarily central routes to persuasion (rational messages) more than peripheral (emotional messages) even though research does support that emotional argumentation is an effective method of persuasion. The current study sought to combine these ideas by observing the most effective method to persuade ingroup and outgroup members through rational and emotional message framing.

Persuasive messages were presented to participants that 1) either favored the participant’s ingroup or outgroup and 2) used either rational or emotional message framing. Results indicated that the race of communicator led to different levels of persuasion and believability, but that message framing did not. Specifically, Black-targeted messages resulted in higher believability and persuasion than White-targeted messages based on White participant responses.

**Keywords**: persuasion, attitude change, ingroup, outgroup, rational, emotional, message framing
Differential Effects of Rational and Emotional Framing on Ingroup and Outgroup Persuasion

Research on persuasion gained its foothold more than half a century ago during the World War II (WWII) era. Studies produced research on persuasion in several contexts, largely using propaganda (e.g. Mintz, 1953). The research on mass persuasion of the United States WWII war bond drive found that powerful emotions were key in influencing 31,000,000 radio listeners to pledge to purchase war bonds (Merton, Fiske, Curtis, 1946). Further, Lewin (1943) researched how to frame influential messages about food rationing. He made the convincing arguments political by directly associating conservation to patriotism. By doing this, he influenced attitudes without addressing the attitude directly. His results suggested that when framed politically, the message was found to be more influential. This established the importance of social context in persuasion.

In social situations, context can be as important as the message and should be used to enhance a persuasive message. The source of a persuasive message and one’s relationship to the source may influence how a message is perceived. If one is able to relate to the source of the message, one tends to perceive the source as having greater credibility. For example, if a persuasive message comes from a source with whom one identifies (e.g., same race, or gender, sexual orientation) the target of the persuasive
message may automatically assume greater credibility (Ratner, Dotsch, Wigboldus, van Knippenberg, & Amodio, 2014).

Persuasiveness can vary greatly depending on the context of members of groups with whom we identify (ingroups) and members of groups who we are not part of (outgroups). One of the most relevant social psychological concepts is the phenomenon of ingroup favoritism; the straightforward idea that we tend to favor those in our ingroups over those in outgroups. Ingroup favoritism has been extensively researched and observed in several different contexts, including race, with White people tending to prefer interaction with other Whites over interactions with Black people (Dasgupta, McGhee, Greenwald, & Banaji, 2000), and age, with college-aged people tending to favor other college-aged people over older ones, (Dasgupta & Greenwald, 2001).

**Ingroup and Outgroup Persuasion**

The Ultimate Attribution Error is a core concept that addresses the differences in attitudes toward the ingroup and outgroup. It is the belief that negative traits of an outgroup member are universal for the whole outgroup, while positive traits are the exception, and assuming the inverse to be true for ingroup members. In other words, people tend to view their ingroup as comprised of individuals, in terms of their positive individual traits, while they view the outgroup as a unit with general negative traits applied to the entire group (Pettigrew, 1979). This gives us an idea of how differences in formation of attitudes about outgroups may begin.

In the 1950s, Allport sparked a discussion about ingroup and outgroup attitudes as they relate to persuasion. One example of research from that era looked at the persuasiveness of a message when the message was supported by one’s ingroup.
Specifically, college students who heard their peers endorse a message were more likely to rate the message as being similar to their own beliefs than those who heard strangers endorse the same message (Kelley & Woodruff, 1956). Research that examines facial structure of ingroup and outgroup members has found similar results. Participants who viewed facial structures similar to their own tended to perceive such faces as more trustworthy, caring, and overall appealing than outgroup faces (Ratner, et al., 2014).

Brewer’s (1999) extensive literature review of ingroup and outgroup attitudes concluded that members of the ingroup will go to almost any lengths to maintain a positive attitude toward the ingroup, often by altering perceptions of the outgroup in a negative direction. These negative outgroup attitudes can manifest in the form of feeling morally superior to the outgroup (Sidanius, 1993; Costa-Lopes, Dovidio, Pereira, Jost, 2013) or perceiving the outgroup as a threat (Brewer 1999; Duckitt & Mphuthing, 1998; Cacault, Goette, Lalive, Thoenig, 2015).

Other research has investigated how outgroup attitudes can be affected by persuasive messages specifically concerning race. Powell, Branscombe, and Schmitt (2005) conducted multiple experiments with White participants in which they framed persuasive messages in terms of either White privilege or Black disadvantage. Results indicated that students exposed to messages framed in terms of White privilege tested significantly lower in racism at the end of the experiment, compared to White students who received a message framed in terms of Black disadvantage. From an ingroup-outgroup perspective, White students who received a White-privilege message were exposed to a message framed in the context of the ingroup. However, White students who received the Black-disadvantage message received the persuasive message framed in
terms of the outgroup and scored higher on racism. The authors suggest that framing a message by making it more consistent with the views of the ingroup resulted in participants feeling more guilt, a form of emotional appeal which can lead to persuasion. Thus, the presence of guilt seemed to be related to how persuasive the message was perceived to be, thus emotional appeal can effectively lead to persuasion (Powell et al., 2005).

Further, Petty, Cacioppo and Goldman (1981) found that this degree of personal involvement was a large factor in the effectiveness of a persuasive message. Their researchers provided participants with persuasive messages, but manipulated relevance to the participants. Half of the student participants were told of proposed institutional policy changes that would take place the next year (high involvement); the other half were told that changes would take place over the course of the next 10 years (low involvement). The results suggested that participants were more influenced, on average, by the high involvement message than the low involvement one (Petty et al., 1981). This can be construed as a type of ingroup favoritism.

Ingroup favoritism has been demonstrated in a more recent study by showing white, Italian students a short video clip of a White man and a Black man interacting with a “beggar” on the street. In the video, a White man threw crumpled paper at the beggar, an inappropriate behavior, followed by a Black man defending the beggar, a socially appropriate behavior. The results showed that participants high in ethnic prejudice were more likely to rate ingroup members that were acting inappropriately more positively than outgroup members who were acting in a prosocial manner (Kosic, Mannetti, & Livi, 2014). This ethnic prejudice can be directly associated to ingroup favoritism. This implies
that people may be more likely to excuse poor ingroup behavior and ignore positive outgroup behavior in order to maintain a positive ingroup attitude.

In addition to ingroup favoritism, negative feelings can manifest toward the outgroup which can be understood as prejudice. Prejudice can be defined as a judgment made about an individual that is reflective of the individual’s social group, usually rooted in stereotypes (Allport, 1979). Like ingroup favoritism, outgroup derogation or prejudice, manifests as a way for one to identify more with one’s ingroup. These negative attitudes form when the outgroup is seen as a threat to the ingroup (Allport, 1979). The idea that one might be more accepting of an ingroup message has been explored, but research on reasons that outgroup members are mistrusted have been explored less extensively.

There is a large body of literature on changes that occur in outgroup attitudes when intergroup threat is present as well. In fact, research has shown that ingroup favoritism and outgroup derogation seem to be separate processes and occur independently of each other (Kosic, et al., 2014; Hinkle & Brown, 1990; Kosterman & Feshbach, 1989). A meta-analysis was conducted to examine outgroup attitudes and attitude threat literature from the 1960s to 2006 (Riek, Mania, & Gaertner, 2006). Several outgroup threat types emerged from the analysis. Symbolic threat is the belief that an outgroup member is not necessarily biologically different from the ingroup, but that the outgroup violates the social norms of the ingroup and thus is seen as a threat. Complementary to symbolic threat is distinctiveness threat, based on the idea that individuality and uniqueness is important to groups. Thus, an outgroup that is similar to an ingroup may be met with competitive and hostile attitudes as a result of the outgroup’s threat to distinctiveness (Branscome, et al. 1999; Riek, et al. 2006). To understand why
negative attitudes toward the outgroup occur, these threats must be analyzed more thoroughly. Knowing why these threats happen is key to understanding how to change negative attitudes.

Attitudes toward ingroup and outgroup members seem to follow very specific rules that generally manifest as positive attitudes toward ingroup members and negative emotions toward outgroup members. This has been demonstrated in multiple contexts, as discussed. However, the findings on ingroup favoritism and prejudice toward the outgroup within the context of race are inconsistent. If race-based prejudice is operating, it would suggest that White people would be likely to justify the disadvantages that outgroup members face. However, as has been seen, White participants exposed to white privilege experienced more guilt and had increased attitude change when faced with such a message (Powell et al., 2005). Thus, the social context factor of race should be explored further.

**Rational and Emotional Messages**

Understanding the persuasion process involves examination of the relation between content and the ways in which social context may affect persuasion; however, the format of the message must also be taken into consideration. Petty and Cacioppo’s Elaboration Likelihood Model of Persuasion (1986) proposes both central and peripheral routes to persuasion. The central route is a method of persuasion focused on the consideration of information central to the attitude object, such as factual information and logic. Conversely, the peripheral route to persuasion focuses on whether the message is associated with surface characteristics, such as positive or negative cues, images, or emotions rather than directly centering on the logic of the message (Petty et al., 1986)
Comparisons between these two types of messages have been made before in several different contexts. Research has examined the cognitive processing of rational and emotional messages in relation to affect, finding that rational appeals triggered cognitive responses, whereas emotional messages mainly activated affect (Rosselli, Skelly, Mackie 1995). The results indicated that more attitude change occurred via emotional messages when positive affect was already present than when positive affect was absent. This suggested that participants were more receptive to attitude change from an emotional message when they were in a good mood than when they reported neutral mood. Conversely, attitude change was higher with the use of rational messages when no affect was already present in participants compared to when affect was present for rational messages (Wang, Qiu, Kim, Benbasat, 2016). The implications of this research lead to the conclusion that participants will be more likely to change their attitudes to an emotional message if a positive emotion has been induced than if a positive emotion has not been induced (Rosselli, Skelly, Mackie 1995; Wang, Qiu, Kim, Benbasat, 2016). This provides further evidence that an emotional appeal can be an effective persuasive tool.

The terms in which a message is couched, or framed, can be a critical part of constructing an effective persuasive message. Framing a message in an emotional context (peripheral) has been found to be an effective persuasive tool. Gross (2008) conducted research looking at episodic framing (a message that conjures a vivid image, usually through the use of emotion) and thematic framing (a message that is more general than specific, and that uses logic) and how these styles might influence attitudes. Participants in the episodic condition read an article about mandatory minimum sentencing, and how a woman suffered injustice due to the mandatory policy. This type of episodic framing
led to more opposition to the mandatory minimum sentencing policy than the thematic framed message, which did not elicit an emotional response, and did not produce as much attitude change. The researchers speculated that the effectiveness of the episodic framed message was due to the induction of sympathy and pity for the woman portrayed in the vignette. Their research highlights the importance of emotion in message framing as an effective persuasive tool.

Other research has looked at rational and emotional appeals in conjunction with the level of audience involvement. Huddy (2000) found that people were more persuaded to contribute to an environmental cause by the use of emotional messages than by rational messages, but only if the participant had a level of involvement with the environmental organization to begin with. In this study, participants were exposed to a pro- or anti-environment message coupled with an emotive image: an “ugly” or “cute” insect or mammal. The results showed no statistically significant difference in whether the animal was a mammal or insect, but participants with a personal involvement were more spurred to action by the image of a cute organism than by the image of an ugly organism. This suggests that there is a level of bias when evaluating an emotional message from a high involvement level rather than a low level of involvement. However, these results can be generalized to personal perceptions of photos. These results may not translate to a social dynamic context such as race relations.

**Emotions in persuasion.**

When considering emotional messages, it is important to consider how various emotions might affect persuasion differently. From an examination of the literature, there are several emotions that appear to be among the most persuasive. In looking at the
impact of Public Service Announcements about HIV/AIDS, Dillard (2000) found that among guilt, fear, anger, sadness, and guilt were found to be the most significant predictor for how much participants were persuaded. Similarly, O’Keefe (2002) outlined the various ways in which guilt can be an effective method of persuasion. This effect may have occurred because guilt is highly tied to one’s self identity, and because guilt-inducing messages persuade by threatening the integrity of the participant. People attempt to maintain the belief that they are “morally adequate;” thus when that adequacy is challenged by a message that threatens their morals, people are more likely to change their attitude in order to maintain their self-integrity.

This finding can also be tied to the ingroup/outgroup debate in that self-identity is a strong determinant in what makes one part of an ingroup, suggesting the inducement of guilt may have an especially persuasive effect when a message is framed in favor of the outgroup. For example, a man exposed to a message about the disproportionately high number of positions of power men have over women in the corporate world may adjust his own beliefs in an attempt to avoid feeling guilty. O’Keefe (2002) also addressed some of the pitfalls of using guilt as a method of persuasion. A major criticism is that guilt frequently will occur along with other negative emotions as well, such as annoyance and resentment. The presence of these emotions can confound the hypothesized persuasive effects of guilt-based messages. However, this research indicates that emotions are able to be used as a persuasive tool.

A study on ad congruency, or advertisements that are consistent with one’s beliefs, manipulated the framing of an advertisement to understand how the tone moderated the effectiveness (Cornelis, Adams, & Cauberghe, 2012). In their review, they
discussed that a rationally framed message will allow participants to rely on simple
decision rules based on content; thus, it is optimal for the message to be framed with
simple, straightforward wording. Conversely, it was stated that emotional framing allows
the reader to use ‘affect-as-information.’ In other words, participants rely on the emotion
they experience from reading the emotionally framed message to form their attitude.
Thus, the emotion that is ‘induced’ is quite important.

Bae (2008) found that empathy (identifying with the experiences and emotions of
another) and sympathy (feeling pity or sorrow for another) have a direct impact on how
effective persuasive messages are when based on personal involvement. The logic is that
higher personal involvement leads to higher empathic and sympathetic responses, which,
in turn, were found to lead to a more powerful persuasive reaction. This research
highlights the ability of empathy and sympathy to serve as effective persuasion tools as
well as the effectiveness of emotion in persuasion in general.

Research on message framing has found evidence that both centrally framed as
well as peripherally framed messages can be effective persuasive tools. Additional
studies have explored precisely which emotions lead to the most robust attitude change in
peripherally framed messages. However, the effectiveness of these messages has not yet
been explored in race contexts. Rather, it has been explored in more general social issues
such as environmental conservation (Huddy, 2000), HIV/AIDS perceptions (Dillard,
2000), and general moral quandaries (Gross, 2008).

The Present Study

Although there is an abundance of research on the ingroup-outgroup phenomenon
and about negative attitudes toward outgroup members, there is a surprising lack of
research on how to actually address negative attitudes toward outgroups, particularly in race contexts. This study explored whether different approaches to persuasion affect ingroup and outgroup attitudes differently. Because people are likely to be emotionally invested in their own groups, it was explored whether an emotional, rather than a rational, fact-based message that targeted their own group would be more persuasive.

This research sought to fill gaps in the literature by examining the effects of two types of framing, emotional and rational, presented to an ingroup or outgroup audience. In this study White participants read a vignette about a professor giving a lecture on racial inequality. The targeted racial group was either an ingroup or an outgroup to the participant. In addition, the message was framed in either rational or emotional wording. The rational message was framed in facts to follow the central route to persuasion, whereas the emotional message was framed to follow the peripheral route by presenting an emotional, empathic message. Participants then rated the persuasiveness of the message communicated in the vignette. Participants also completed a measure gauging how closely they identified with their own ingroup, as well as how closely they related their ingroup to a specific outgroup. These hypotheses were developed because prior research has documented that people are more persuaded by emotional messages when they are personally relevant than by emotional messages that had no personal relevance to them.

Research by Huddy (2008) that found that messages of high personal involvement framed emotionally, on average, led to greater attitude change than did messages framed emotionally. Based on this research and the concept of ingroup favoritism, it was expected that participants would rate ingroup, emotional messages as the most persuasive
and believable, followed by ingroup rational messages. Further, outgroup messages
grounded either rationally or emotionally would have equally low rates of persuasion and
believability.

In addition to the predicted interaction, it was also predicted that there would be a
main effect of target race on believability and persuasion such that Black-targeted
messages (messages about the disadvantages of Black people) would result in higher
levels of believability and persuasiveness compared to White-targeted messages
(messages about the disadvantages of White people). This is based on research that found
White participants had increased levels of attitude change when faced with a White
privilege message as compared to a Black disadvantage message because of the feelings
of guilt (Powell, Branscombe & Schmitt, 2005). Thus, it is predicted that Black-targeted
messages will be rated as more persuasive and believable than White-targeted messages.

As an exploratory hypothesis, we expect the relationship between the ingroup and
the individual to be involved in how believable or persuasive a message is perceived to
be. Participants who identify closely with their ingroup may have lower levels of
believability and persuasion for outgroup messages than participants who do not identify
closely with their ingroup. Similarly, participants who perceive their ingroup to be very
similar to a given outgroup may have higher levels of persuasion and believability than
participants who perceive their ingroup to be dissimilar to the outgroup. To account for
these exploratory variables, they were each measured and controlled for.

**Method**

**Participants**
160 total participants were recruited via the Seton Hall participant pool to participate in the study. Of the 153 participants, 65% were female. 56% identified as Caucasian, 11% identified as African American, 6.7% identified as Asian, 4.3% identified as Indian, and 14.6% identified as Other. Participants were reimbursed with class credit. An ANCOVA G*Power analysis showed that 90 participants were needed to detect a moderate effect of \( f = .3 \) with 1 variable degree of freedom and 4 groups at .80 power with 2 covariates (Faul, Erdfelder, Lang, & Buchner, 2007).

**Materials**

*Vignettes.*

Participants were randomly assigned to read one of four vignettes (see Appendix A), presented as excerpts from a university lecture. The framing based on research conducted by Cornelis, Adams, and Cauberghe (2012), who found that a rationally framed messages is more effective if its contents match the individual’s personal motivation; this was not so for emotionally framed messages. The lectures were framed in one of four ways: (1) White Rational, in which participants received a message highlighting the hardships of White people from a White lecturer using information presented as fact; (2) White Emotional, in which participants received a message highlighting the hardships of White people from a White lecturer using emotion-evoking examples; (3) Black Rational from a Black lecturer; or (4) Black Emotional from a Black lecturer. The Black-targeted messages were constructed to exactly parallel the White-targeted messages; the only difference was that the references to race were changed from White to Black. The four conditions are illustrated by this table.
Ingroup or outgroup status for participants was determined post-experimentally and was based upon which randomly assigned vignette was received and self-reported racial identity. Participants who did not identify with any race listed on the demographics form, or who identified with more than one race, were given the option to write in their race. The lecture excerpt contained statements that highlighted the struggles of either White people or Black people, and was expressed in either rational language or emotional language. The lecture included standardized, fabricated information in order to maximize control across conditions. Additionally, the lectures were identical across race conditions, meaning the messages and statistics cited were the same for both rational messages; only race was varied across conditions. Similarly, the same wording was used for emotionally framed messages with only race manipulated. An example of rational language was “Whites/Blacks are 20% more likely to commit suicide than people of other races.” An example of the corresponding emotional fact from the White/Black lecturer was “When I was young, my best friend’s father committed suicide. It was the second suicide that family had to go through in two years.” When a participant’s self-identified race matched the race of the person in the vignette, he or she was classified as receiving an ingroup message (i.e., White participant receiving a message about White disadvantages; Black participant receiving a message about Black disadvantages). Participants who received a
message that did not match their self-identified race were classified as receiving an outgroup message.

*Advertising believability scale.*

Developed by Beltramini and Evans (1985), the intention of The Advertising Believability Scale (ABS) is to assess the believability of advertisements or messages (see Appendix B). The scale assesses participants’ opinions about the authenticity, believability, and trustworthiness of a message, among several other variables. Participants responded to these items to rate the persuasiveness of the vignette, as the concepts of believability and persuasion are closely related (Dillard & Pfau, 2002). The scale is comprised of ten semantic differential adjectives anchored on 5-point place scales. Participants rated the message on all items.

According to the Handbook of Marketing scales, the ABS has acceptable concurrent validity (coefficient alpha across three products were .61, .69, .69) and acceptable discriminant validity (coefficient alpha across three products were .43, .42, .47). There is also evidence of high internal reliability, with correlation coefficients averaging .90 across items (Bearden, Netemeyer, 1999). Cronbach’s alpha for the sample collected for the ABS items was .91.

*Inclusion of ingroup in the self.*

The Inclusion of Ingroup in the Self (IIS) was developed by Tropp and Wright (2001) as a method to assess perceived closeness with one’s own ingroup. A second similar scale can be used to rate peoples’ perceptions concerning the relationship between their own ingroup and a given outgroup (see Appendix C). These scales were used in this
The study investigates whether perceived closeness to one’s own ingroup might have affected the persuasiveness of the differently framed ingroup or outgroup messages.

The IIS is pictorial: Participants select the graphic that best represents their perceived relationship to their ingroup. The graphics are comprised of a series of circles, one representing the participant, and the other representing the group (see Appendix C for examples). The circles vary in degrees of closeness and overlap. In the second part of the IIS, the participant then selects a graphic that best represents their perceived relationship between their ingroup and the specified outgroup.

The data collected were used to further explore how ingroup identification might influence persuasion. It was expected that how one views racial group dynamics might influence a racially persuasive message. Thus the results of the IIS were used as a covariate in order to control for this bias. The goal of the IIS was to assess how closely one identified with their ingroup (Ingroup Identification) and how closely one viewed their ingroup to be with a provided outgroup (Ingroup-Outgroup similarity). There were a total of 6 options for the Ingroup Identification item, so if a participant rated a 1, 2 or 3, they were coded as having low involvement with their own group. If they rated a 4, 5 or 6, they were coded as having high involvement. A similar coding process was implemented for the Ingroup-Outgroup similarity item. Participants with ratings of 1, 2, or 3 were coded as ingroup-outgroup dissimilarity and participants with ratings of 4, 5, or 6 were coded as ingroup-outgroup similarity.

Research by Tropp & Wright (2001) has shown evidence for concurrent, discriminant, and construct validity. The measure has demonstrated high correlations to similar items from other scales of ingroup identification, highlighting the validity of the
IIS. Further, reliability data were gathered and the IIS was found to have moderately high test-retest reliability (.76). Cronbach’s alpha for the present study for the IIS items was .75.

**Additional persuasion items.**

Additional persuasion items were developed in order to assess message persuasiveness directly. A fault of the ABS is that it does not directly ask about extent of persuasion. Because the ABS is used primarily to assess the believability of advertisements, we wanted to include several other items that were designed specifically to assess message persuasiveness (See Appendix D). A principal axis factor analysis was run on the four APS items assessing persuasion (to what extent do you agree with this message, to what extent do you believe others agree with this message, how similar is the content of this message to your own attitudes, and how persuaded were you by this message) with varimax rotation. The Kaiser-Meyer-Olkin measure indicated good sampling adequacy at KMO = .762 with all individual KMO values being above .7. Cronbach’s alpha for the present sample was .79. Based on the results of this analysis, a mean score for the summed Additional Persuasion items was used in analysis.

**Demographics and manipulation check.**

Participants filled out a demographics form, which gathered information about their race, ethnicity, gender, age, and year in school. These data were used primarily to assign ingroup or outgroup status. Manipulation check items were also included to make sure students paid appropriate attention to the experiment. The manipulation check items simply asked the participant about race in the vignette they read and whether they read
positive or negative information. Students who answered manipulation check items incorrectly had their data excluded from analysis (See Appendix E).

**Procedure**

Students accessed and consented to the experiment through Sona Systems, an online research scheduling system. Upon agreeing to participate, they were forwarded the online survey. Students took an average of 12 minutes to complete the materials. Participants first were exposed to the persuasive message contained in the lecture excerpt. After reading, students responded to the Advertising Believability Scale, the Additional Persuasion Items, and the two IIS assessments. Finally, they completed demographic and manipulation check items.

**Results**

Due to low response rate of nonwhite participants (19 African American, 16 Hispanic, 11 Asian, 7 Indian), it was not possible to examine the effects of race as an ingroup. Because there were not sufficient numbers of non-White respondents, only the data of White participants were analyzed. For this reason, the ingroup-outgroup status, as based on race variable, could not be explored. Because only White participants data was analyzed, there would be no basis of comparison between different ingroup and outgroup dynamics; all data would analyze White-targeted messages as ingroups and Black-targeted messages as outgroups, providing no valuable comparison. Thus, only the effects of message framing and race of communicator could be assessed in the analyses. Of these 92 participants, 63% were female with an average age of 19.1 years.
Outcome Descriptive Statistics

<table>
<thead>
<tr>
<th>n = 92</th>
<th>Mean</th>
<th>SD</th>
</tr>
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### Advertising Believability Scale
- Believable: 4.26, 1.77
- Trustworthy: 4.11, 1.61
- Convincing: 4.10, 1.91
- Credible: 3.79, 1.69
- Reasonable: 4.20, 1.69
- Honest: 4.59, 1.72
- Questionable: 3.39, 1.60
- Conclusive: 4.28, 1.64
- Authentic: 4.33, 1.60
- Likely: 4.54, 1.72
- Composite Score: 4.16, 1.23

### Additional Persuasion Items
- Persuasion: 2.83, 1.20
- Similarity: 2.83, 0.97
- Agreement with message: 3.29, 1.06
- Agreement with others: 3.15, 0.94
- Composite Score: 3.03, 0.83

### Inclusion of Ingroup in the Self
- Ingroup-Outgroup Similarity: 3.50, 1.48
- Ingroup Identification: 3.51, 1.11

**Believability**

A two-way Analysis of Covariance (ANCOVA) was conducted to test the effects of message type and target race on the Advertising Believability Scale (ABS). The variance from the IIS items were removed based on our hypotheses. It was hypothesized that how people identify with their ingroup might confound the results of believability and persuasiveness. If people identify closely with their ingroup, they may disregard any
message proposed by an outgroup member regardless of the message itself. Thus, we controlled for the results of the IIS by including it as a covariate.

There was a main effect of target race on message believability $F(1, 86) = 14.25, p < .05$. Participants expressed significantly higher rates of believability, on average, when receiving a Black targeted message ($M = 4.57$, $SD = 1.72$), than a White Targeted message ($M = 3.77$, $SD = 1.69$), $\eta^2 = .107$.

![Message Believability](image)

There was no significant effect of message type on believability $F(1, 86) = .045, p = .857$, $\eta^2 = .02$. Participants’ did not have significantly different scores in believability regardless of whether they received a rationally or emotionally framed message. In addition, no significant two-way interaction was found between message type and target race with respect to message believability $F(1, 86) = .13, p = .910, \eta^2 = .0002$.

Participants’ rates of believability were not significantly different regardless of target race and message type. Further, there was no significant effect for either of the two IIS items; thus, it seem that neither Ingroup Identification, $F(1, 86) = .217, p = .642, \eta^2 =$
.003, nor Ingroup-Outgroup Similarity, $F(1, 86) = .107, p = .304, \eta^2 = .012$, significantly influenced how believable the message was perceived to be.

**Persuasiveness**

A two-way ANCOVA on target race and message type was also run on the mean score of the Additional Persuasion Items (API) with the IIS items again serving as covariates. There was a significant main effect of target race on persuasiveness $F(1, 86) = 7.97, p < .001$. White participants found a Black targeted message ($M = 3.33, SD = 1.12$) to be significantly more persuasive, on average, than a White targeted message ($M = 2.74, SD = 1.10$), $\eta^2 = .137$.

There was no main effect of message type on persuasiveness found $F(1, 86) = 196, p = .563, \eta^2 = .004$. Similarly, there was no significant effect of Ingroup-Outgroup similarity on persuasiveness, $F(1, 86) = .012, p = .913, \eta^2 = .0001$. However, for the Ingroup-Outgroup Similarity covariate, there was a significant effect, $F(1, 86) = 4.35, p < .05$, suggesting significant predictive power of Ingroup-Outgroup identification on message persuasiveness.
To examine Ingroup-Outgroup Similarity as a significant predictor, a three way ANOVA was run with message type, target race, and Ingroup-Outgroup identification as the independent variables with the API mean score as the outcome variable. A significant main effect of Ingroup-Outgroup identification on persuasion was found $F(1, 84) = 4.46, p < .05, \eta^2 = .05$. Participants who rated their ingroup as being dissimilar to the outgroup had significant lower rates of persuasion ($M = 2.87, SD = 1.04$) than participants who rated their ingroup as being similar to the outgroup ($M = 3.02, SD = 1.08$). There was also a three way interaction of message type, target race, and Ingroup-Outgroup identification found $F(1, 84) = 4.69, p < .05, \eta^2 = .053$. Analysis of this interaction found that when exposed to a rational message from a White targeted message, ingroup-outgroup similar ($M = 2.98, SD = 2.30$) and dissimilar ($M = 2.45, SD = 1.92$) participants’ persuasion scores were not significantly different. The same trend was found in a rational message from a Black targeted message where ingroup-outgroup similar participants’ ($M = 3.63, SD = 2.30$) and ingroup-outgroup dissimilar participants’ ($M = 3.34, SD = 2.11$) persuasion scores were not significantly different. When exposed to an emotional message from a White targeted message, there was also no significant difference in persuasiveness between ingroup-outgroup similar ($M = 2.64, SD = 2.11$) and dissimilar ($M = 2.94, SD = 2.01$) participants. However, an emotional message from a Black targeted message found that, on average, ingroup-outgroup similar ($M = 3.58, SD = 2.01$) participants had significantly higher rates of persuasion than ingroup-outgroup dissimilar ($M = 2.77, SD = 2.11$) participants. Thus it seems Ingroup-Outgroup Similarity mediated how persuasive an emotional message from a Black targeted message was perceived to be. Those who perceived a wider gap between White people and Black people were
harder to persuade with a Black emotional message than those who perceived a narrower gap.

**Discussion**

Although the low number of non-White participants precluded the examination of differences between race-based ingroups, the results are informative about how message framing and communicator race affect persuasion and perceptions of believability among White participants. It was predicted that there would be effects of target race and participant race on message believability. As expected, White participants rated messages favoring the Black population as more believable, on average, than messages targeting the White population. This might suggest that the unfair treatment of Black people is well known, and it was simply not believable to participants who read an excerpt asserting that Whites are also treated poorly in the United States.

An index of overall persuasion (personal message agreement, agreement with others, similarity to own attitudes, and overall message persuasiveness) showed similar effects. Messages targeting Black people produced higher mean rates of persuasion than vignettes favoring Whites. This might be due to the same reasons underlying the high rates of believability: White participants may have overwhelmingly disagreed with the idea that White people face disproportionately more hardships than do people of other races.

It was expected that participants would rate a message as maximally-persuasive if it was both an ingroup message and framed emotionally; the lowest mean rates of persuasion and believability would occur in emotionally framed, outgroup-targeted messages. As predicted, there was no main effect of believability on message type. It was
predicted that ingroup emotional messages would lead to higher average levels of persuasion, but outgroup emotional messages would lead to low average levels of persuasion. Thus, the interaction would “cancel out,” resulting in no significant main effect. Unfortunately, the ingroup-outgroup variable could not be explored due to the participant demographics, as there were insufficient numbers of Black participants’ responses to permit valid analysis of this effect.

The interaction between message type and target race was of particular interest in this study, but analyses showed that type of message framing did not affect perceptions of believability when participants read messages targeting either Blacks or Whites. When exposed to a Black-targeted message, participants, on average, there was no significant difference found between rationally and emotionally framed messages. Similarly, when participants read a White-targeted message, there were no significant differences in mean degree of believability based on message framing. It was found that regardless of the way in which the message was framed with regard to who the message came from, all messages were not significantly different. This finding may indicate that participants rely more on their own perceptions of what is true in the message without regard to its source or style.

Similar results were found for the dependent variable, message persuasiveness. On average, participants demonstrated rates of persuasiveness when receiving a Black-or White-targeted message that were not statistically different. This further supports the idea that participants are likely to form their opinion based on the content of the message, rather than considering the type of message framing. These results seem to suggest that
participants aren’t swayed by the peripheral factor, message type, when message content, a central factor, is also considered.

Worth mentioning are the covariate items, which were expected to influence the believability and persuasiveness of the message. It was expected that participants who identified closely with their ingroup, or who perceived a vast difference between their racial group and an outgroup would find an ingroup message to be more persuasive and believable. However, neither the Ingroup Identification covariate, nor the Ingroup-Outgroup Similarity covariate significantly predicted perceptions of message believability.

These results imply that participants tended to rely more on the content of the message without considering how closely they might identify with their own ingroup, or how similar their own group is to the outgroup. However, in our analysis of persuasiveness, it was found that Ingroup-Outgroup Similarity did, in fact, significantly affect perceptions of persuasiveness in White participants. Based on our results, White participants tended to take into consideration how similar Whites as a group are to Blacks as a group when judging persuasiveness. Specifically, participants who perceived their ingroup to be more similar to the outgroup had higher rates of overall persuasion. This might be related to ingroup favoritism. In previously discussed research, it was found that White participants who score high in ethnic prejudice, or have strong ingroup favoritism, were more reluctant to speak out against an ingroup member acting poorly manner (Kosic, Mannetti, & Livi, 2014). In the present study, participants who perceived their ingroup to be similar to the outgroup had higher rates of persuasion indicating possible
lower levels of ingroup favoritism. This effect was not found for the Ingroup Identification variable, however.

It was also found that White participants receiving an emotional message from a Black targeted message were more persuaded when they viewed White people as a group as being similar to Black people as a group compared to participants who perceived White people to be more dissimilar to Black people.

While informative, the results of the current study do not follow the pattern of findings in other, similar literature. Specifically, there were no significant main effects found for rational vs. emotional styles of message framing, although a wealth of literature suggests that rational and emotional message framing can lead to different levels of persuasion via cognition (Gross, 2008), affect induction (Rosselli, at al., 1995; Wang, et al., 2016), and attitude formation (Gross, 2008). The lack of a significant interaction effect was also in contrast to findings of previous research. Huddy (2000) found evidence that personal involvement mediated the persuasiveness of a rational vs. emotional environmental conservation message, but this was not the case in the present study. While the present study found an interaction between ingroup-outgroup similarity, message type, and target race, the direction of the effect was not the same as the Huddy et al. findings. This discrepancy in results may be attributed to replication differences, but it is more likely that the manipulated differences between rational and emotional messages were not powerful enough to elicit such effects. This would, at least in part, explain the lack of both significant main and interaction effects.

A fundamental problem throughout the data analysis process was the low number of Black participants. The stated hypotheses and planned analyses were based on the
assumption that data from an adequate number of diverse participants would be collected. Because there were not enough Black or nonwhite participants to allow for valid statistical comparisons, the initial intent of these hypotheses could not be explored.

These findings may reveal information about student dynamics at Seton Hall University. Do Black students have less free time to participate in studies than their White counterparts? Did Black students seek research credits elsewhere? These possibilities would be important to consider if similar research was to be conducted in future.

Another interesting observation concerned the range of ratings for the ABS items. On a 10-point rating scale, the mean for any respondent group rarely exceeded 4.5. In fact, the overall mean was 4.07, indicating low believability overall. This suggests that regardless of the message received, ingroup or outgroup targeted, rational or emotional framing, most participants did not rank any message as very believable. This may have been due to the general unpleasantness of the message content or, perhaps more optimistically, that participants were reluctant to believe an opinionated message from a single source of information.

Previous research has explored attitude polarization, which states that a persuasive message might have the opposite effect from what was intended if the recipient has a negative attitude toward the topic of the message at the outset (Tormala & Petty, 2004). In the context of this study, if a participant had a negative attitude toward racial inequality, then the mere presence of a message on this topic might lead to disagreement with the message, regardless of its construction or content. This might have led to floor effects. On one hand, this finding could be taken to mean that people are able
to resist biased messages. At the same time, it is concerning that participants might have made quick attitude judgments based solely on the topic of the message rather than the actual content.

Future research could improve on the current study immensely. First, it would be very important to ensure that data from a diverse, representative racial sample was collected. This would have made exploring the ingroup/outgroup factor possible. The type of emotional message portrayed could also be explored. In the current study, an anecdotal message was used to convey emotional content. Future studies could use a different model that does not rely on anecdotes to create an emotional reaction. The source of a message may be an important variable to explore as well in future research. The source of a message may be more persuasive than the content of the message. Last, a standardized measure of persuasion would be optimal in future research. A fully standardized scale would be likely be more effective for further studies.

By understanding the factors involved in attitude formation with regard to persuasive messages, it may be possible to maximize persuasion efforts to appeal to certain demographics. For example, if the content of the message emphasizes the struggles of a known minority population (e.g., domestic violence against women), consideration of the content of the message is important. People may tend to be skeptical of messages that highlight the hardships of a known majority population. Although the current study explores only race as an ingroup/outgroup dynamic, future research can replicate these methods in different group contexts to see if the results generalize. If so, this research could possibly be applied to various situations such as marketing campaigns, political appeals, or sensitivity training. Ideally, the results of this study
would be able to translate to real world settings with the aim to inform, destigmatize, and educate.
References


Appendix A

Black Rational

Please read the following highlights from a professor’s recent lecture. Please pay attention to details, as you will be asked to give your opinions on the contents of the lecture.

Dr. Edward Davis, a professor of sociology at Williamson State University, who is himself Black, recently gave his opinions about the hardships that African Americans face in the United States today. An excerpt is presented here:

“...Things are not going well for African Americans these days in the United States. They do not receive some benefits afforded to the rest of the population. There is more discrimination against African Americans than people would like to admit; it’s just sometimes hard to identify and label it as such. I have studied this topic extensively, and some of my findings may go against what you’ve heard, or think you know. I’d like to tell you about a few of these now:

My research has shown that Black people are more likely to commit suicide than people of any other race, and that they make up more than half of all homicide victims. They are far more likely to live in poverty, more likely to be unemployed, and homelessness in Blacks is much higher than the national average.

According to my sources, the dropout rate of African Americans in secondary school is much higher than for people of other races, and a far greater percentage of blacks drop out of college, too.

In addition, I believe that they are more likely live in homes where they suffer domestic violence and abuse, more so than persons of other races. Perhaps not surprisingly, in light of all these circumstances, African Americans are much more likely to suffer from mental health disorders, such as depression and anxiety.

According to the statistics I have compiled, they are also more likely to suffer from a host of physical ailments, such as cancer and heart disease. Blacks are more likely to die before the age of 60 than those of any other race.

The disparity in the quality of life between African Americans and people of other races in the United States is appalling, and these issues need to be addressed..."
White Rational

Please read the following highlights from a professor’s recent lecture. Please pay attention to details, as you will be asked to give your opinions on the contents of the lecture.

Dr. Edward Davis, a professor of sociology at Williamson State University, who is himself White, recently gave his opinions about the hardships that Anglo Americans face in the United States today. An excerpt is presented here:

“...Things are not going well for Anglo Americans these days in the United States. They do not receive some benefits as are afforded to the rest of the population. There is more discrimination against Anglo Americans than people would like to admit; it’s just sometimes hard to identify and label it as such. I have studied this topic extensively, and some of my findings may go against what you’ve heard, or think you know. I’d like to tell you about a few of these now:

My research has shown that White people are more likely to commit suicide than people of any other race, and that they make up more than half of all homicide victims. They are far more likely to live in poverty, more likely to be unemployed, and homelessness in Whites is much higher than the national average.

According to my sources, the dropout rate of Anglo Americans in secondary school is much higher than for people of other races, and a far greater percentage of Whites drop out of college, too.

In addition, I believe that they are more likely live in homes where they suffer domestic violence and abuse, more so than persons of other races. Perhaps not surprisingly, in light of all these circumstances, Anglo Americans are much more likely to suffer from mental health disorders, such as depression and anxiety.

According to the statistics I have compiled, they are also more likely to suffer from a host of physical ailments, such as cancer and heart disease. Whites are more likely to die before the age of 60 than those of any other race.

The disparity in the quality of life among Anglo Americans and people of other races in the United States is appalling, and these issues need to be addressed...”
Black Emotional

Please read the following highlights from a professor’s recent lecture. Please pay attention to details, as you will be asked to give your opinions on the contents of the lecture.

Dr. Edward Davis, a professor of sociology at Williamson State University, who is himself Black, recently gave his opinions about the hardships that African Americans face in the United States today. An excerpt is presented here:

“...Things are not going well for African Americans these days in the United States. In so many ways, they do not receive as many benefits as are afforded to the rest of the population. There is much more discrimination against African Americans than people would like to admit; it’s just sometimes hard to identify and label it as such. I have studied this topic extensively, and some of my findings may go against what you’ve heard, or think you know. I’d like to tell you about a few of these now:

Black people are more likely to be victims of many of society’s ills as compared to those of other races. I grew up very poor in downtown Chicago. I remember when I was 12, my best friend’s dad killed himself. That was the second suicide his family had to face in just two years. Not only that, but there was a shooting death almost every week in the neighborhood. My family lived in extreme poverty, but compared to others, we were some of the lucky ones. So many of the people around us didn’t have jobs at all, and there were too many Black families living one step away from the streets, with no real home to call their own.

The education dropout rate of African Americans is problematic. I remember that when I finished high school, fewer than half of my class was still around. Many of them had to drop out of school to take care of their families, or to start working -- if they were still alive. Of the students who actually got to college, more than half of them had to drop out for the same reasons.

I believe that Blacks are more likely live in homes where they suffer domestic violence and abuse, more so than persons of other races. In college, I volunteered at a domestic abuse shelter, and couldn’t help but notice the overwhelming number of Black victims who came through our doors every day – far more than people of other races.

These stressors make African Americans suffer in physical ways, too. Both my parents suffered from severe depression and anxiety throughout my childhood. They both died relatively young, one of cancer and one of heart disease, like so many older Black people I have known. In fact, I don’t know too many poor Black people who have made it past the age of 60.

The disparity in the quality of life between African Americans and people of other races in the United States is appalling, and these issues need to be addressed...
White Emotional

Please read the following highlights from a professor's recent lecture. Please pay attention to details, as you will be asked to give your opinions on the contents of the lecture.

Dr. Edward Davis, a professor of sociology at Williamson University, who is himself White, recently gave his opinions about the hardships that Anglo Americans face in the United States today. An excerpt is presented here:

“...Things are not going well for Anglo Americans these days in the United States. In so many ways, they do not receive as many benefits as are afforded to the rest of the population. There is much more discrimination against Anglo Americans than people would like to admit; it's just sometimes hard to identify and label it as such. I have studied this topic extensively, and some of my findings may go against what you've heard, or think you know. I'd like to tell you about a few of these now:

White people are more likely to be victims of many of society's ills as compared to those of other races. I grew up very poor in downtown Chicago. I remember when I was 12, my best friend’s dad killed himself. That was the second suicide his family had to face in just two years. Not only that, but there was a shooting death almost every week in the neighborhood. My family lived in extreme poverty, but compared to others, we were some of the lucky ones. So many of the people around us didn’t have jobs at all, and there were too many White families living one step away from the streets, with no real home to call their own.

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The disparity in the quality of life between Anglo Americans and people of other races in the United States is appalling, and these issues need to be addressed...
Appendix B

We’d like to get your reaction to the lecture excerpt you just read. Using the pairs of qualities listed below, please choose the number that best reflects your evaluation of Professor Davis and his message. For example, if you believe the message was very convincing, select a number closer to that end of the scale (e.g., 8, 9, or 10). If you judge that it wasn’t convincing, use the lower end of the scale (e.g., 1, 2, 3, or 4). Or if you’re neutral about a dimension, use the midpoint of the scale. Please try not to do this too often, as we’d like to assess as many opinions as possible.

Unbelievable 1 2 3 4 5 6 7 8 9 10 Believable
Untrustworthy 1 2 3 4 5 6 7 8 9 10 Trustworthy
Not convincing 1 2 3 4 5 6 7 8 9 10 Convincing
Not credible 1 2 3 4 5 6 7 8 9 10 Credible
Unreasonable 1 2 3 4 5 6 7 8 9 10 Reasonable
Dishonest 1 2 3 4 5 6 7 8 9 10 Honest
Questionable 1 2 3 4 5 6 7 8 9 10 Unquestionable
Inconclusive 1 2 3 4 5 6 7 8 9 10 Conclusive
Not authentic 1 2 3 4 5 6 7 8 9 10 Authentic
Unlikely 1 2 3 4 5 6 7 8 9 10 Likely
Appendix C

The seven diagrams that appear below are intended to assess the degree to which individual people see themselves as a part of a group. In this case we are interested in how closely you identify with other members of your own race. If you define yourself primarily as a member of your racial group, then you might choose a diagram with the “self” – “group” circles very close. On the other hand, if you don’t strongly identify with your own racial group, then choose a diagram with the circles further apart.

Please select the picture that best represents how you perceive your relationship with your own racial group. (Ex. If you as an African American do not closely identify with other African Americans, you might select an option with the circles further apart.)
We are also interested in the way in which people think about their own racial group in relation to other racial groups. As this is an initial study, we are keeping our race categories very broad, and including only the designations “Nonwhite” and “White”.

Please select the diagram that best represents how you perceive the relationship between your own racial group and the other race category (Nonwhite-White). If as an African American, you feel that your group is very similar to Whites, you might select an option with the circles close together, or overlapping. Please focus on your racial group, and not yourself as an individual, when you make your assessment.
Appendix D

### Personal Agreement:
To what extent do you agree with Professor Davis’s message?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

### Agreement with others:
To what extent do you believe others might agree with Professor Davis’s message?

<table>
<thead>
<tr>
<th>Strongly Disbelieve</th>
<th>Disbelieve</th>
<th>Neutral</th>
<th>Believe</th>
<th>Strongly Believe</th>
</tr>
</thead>
</table>

### Attitude Similarity:
To what extent is the content of this message similar to your own attitudes?

<table>
<thead>
<tr>
<th>Not Similar At All</th>
<th>Not similar</th>
<th>Neutral</th>
<th>Similar</th>
<th>Very Similar</th>
</tr>
</thead>
</table>

### Overall Persuasiveness:
To what extent were you persuaded by this message?

<table>
<thead>
<tr>
<th>Not At All</th>
<th>Not Really</th>
<th>Neutral</th>
<th>Somewhat</th>
<th>Very Much So</th>
</tr>
</thead>
</table>

### Did your opinions change after reading the message?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If you answered yes to the question above, to what extent did your opinions change?

<table>
<thead>
<tr>
<th>Not Very Much</th>
<th>Slightly</th>
<th>Somewhat</th>
<th>Moderately</th>
<th>Very Much</th>
</tr>
</thead>
</table>
Appendix E

Please answer the following questions about yourself.

Sex:  M  F

Age: ___

Year in School:  Fr.  So.  Jr.  Sr.

Race:  African American  Caucasian  Asian  American Indian
       Native Hawaiian  Indian  Hispanic/Latino  Other (please write)

What race was the lecture focusing on?  White  Black

Any additional comments?

_________________________________________