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THE EFFECTS OF STIGMA ON HIV/AIDS

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A Thesis

Submitted to

The Graduate Faculty of

Auburn University Montgomery

In Partial Fulfillment of the

Requirements for the

Degree of

Master of Science

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June 24, 2014

THE EFFECTS OF STIGMA ON HIV/AIDS

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The Effects of Stigma on HIV/AIDS

by

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Auburn University Montgomery
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Montgomery, Alabama
June 24, 2014

[HIV/AIDS, Cancer, Prejudice, Fault, Religiosity]

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Abstract

Stereotypic prejudicial responses are learned reactions within the recognition-response process in humans. This two-session experiment investigated the impact of subject familiarity on individual reaction times towards learned and novel targets diagnosed with either HIV/AIDS or cancer. The goal of the current study was to examine the level of implicit prejudice expressed towards individuals/targets diagnosed with HIV/AIDS based on the target's gender, ethnicity, and perceived level of personal fault/responsibility for disease acquisition. This theory was tested by assessing each participant's individual reaction time to positive/negative words when associated with the learned and novel targets. During the first session, participants learned individuating information concerning disease diagnosis and acquisition for 16 different targets. Approximately, forty-eight hours after the initial session, participants returned to complete a battery of tasks for the second session. During session two of the experiment, participants were tested on the targets previously seen on the first day of experimentation along with 16 novel targets. However, disease acquisition was not associated with the novel targets. Furthermore, a Lexical Decision Task (LDT) was administered during the second session of the experiment to decipher the genuine level of personal implicit prejudice expressed towards the learned and novel targets. The degree of implicit prejudice was measured by the participants' rate of association between positive and negative words when paired with photo stimuli. Results ultimately revealed that participants had a more negative association to novel male targets, novel Black targets, and novel targets with HIV/AIDS who were associated with fault for disease acquisition. Results also revealed numerous interesting findings for the learned targets and fault. Surprisingly, an unexpected outcome revealed that participants were also more likely to have a negative association to the cancer targets as opposed to the hypothesized

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Table of Contents

Abstract 2

Acknowledgements 4

List of Tables 7

Chapter 1, Review of Literature

- Introduction 8
- HIV/AIDS Stigma 9
- Morality 11
- Gender 11
- Ethnicity 13
- Fault 14

Chapter 2, Purpose and Hypotheses

- General Hypotheses 17

Chapter 3, Methods

- Participants 18
- Materials 19
- Procedures 20

Chapter 4, Results

- General Analyses 23
- Fault Analyses 28
- Correlations 35

Chapter 5, Discussion

- General Discussion 37
- Post Hoc Findings 41
- Implications 42

List of Tables

Table 1. Pearson Correlation Matrix Among Prejudice and Religiosity Questionnaires: General Analysis Among Black Targets Associated with Positive/Negative Words 51

Table 2. Pearson Correlation Matrix Among Prejudice and Religiosity Questionnaires: General Analysis Among White Targets Associated with Positive/Negative Words 52

Table 3. Pearson Correlation Matrix Among Prejudice and Religiosity Questionnaires: Fault Analysis Among Black Targets Associated with Positive/Negative Words 53

Table 4. Pearson Correlation Matrix among Prejudice and Religiosity Questionnaires: Fault Analysis Among White Targets Associated with Positive/Negative Words 54

Review of Literature

Introduction

In 1984, Ryan White, a 13-year-old male, was diagnosed with HIV/AIDS after receiving a contaminated blood transfusion which he regularly required due to a severe congenital blood disorder. When Ryan's school administration was informed of his positive HIV/AIDS status, he was asked to discontinue his education in a government-instilled social setting with fellow children, due to fear that he might infect those within his educational cohort. After a 14-month legal battle with the Indiana District School Board, Ryan was finally allowed back into the classroom. On the day of his return, only 209 students out of the 360 enrolled were in attendance, with seven subsequently transferring schools (http://ryan-white.memory-of.com/Timeline.aspx). Teachers, city council members, and parents actively petitioned for Ryan to be banned from school property. Since the time of his infection until his ninth grade year, Ryan and his family fought a constant battle within the courts to allow him the privilege of attending school with his peers. In 1986, The White Family finally won their legal campaign which prevented educational settings from terminating a student based on said student's positive HIV/AIDS status (http://ryan-white.memory-of.com/Timeline.aspx). Considering the extensive prejudice Ryan and his family endured based on a disease outside their realm of control, how much greater might the prejudice and discrimination have been had the infection been viewed as a result of Ryan's irresponsible behavior (i.e. sexual misconduct, drug use)? Would the ramifications of being diagnosed with HIV/AIDS have been different had he been female, of a different ethnicity, or had the disease been nontransferable (i.e. cancer)?

Borckert and Rickabaugh (1995) associated three concepts with the level of stigma a disease incurs. These concepts state that a disease that is "progressive and

incurable, not well understood among the public, and the symptoms are not able to be concealed" will bring about the highest levels of stigmatization. While HIV/AIDS is not the only disease surrounded by negative stigmas and stereotypes, it does cause one to question, "Why?" Why are negative stigmas/stereotypes more likely to be associated with HIV/AIDS as opposed to other diseases, such as cancer? For instance, a diagnosis of cancer may bring about discrimination within the workplace due to absences, lack of personal energy, and required time off (McKenna, Fabian, Hurley, McMahon, & West, 2007) but lacks the harsh social stigma typically associated with HIV/AIDS. In addition to the types of discrimination mentioned above, cancer patients may also experience elicit stigma based on personal fault toward specific cancers (e.g. lung, liver, tongue) (Knapp-Oliver & Moyer, 2009). However, the level of discrimination toward those with HIV/AIDS appears to carry a greater connotation of hatred and fear. This stereotype refers back to the earlier question of "Why?" Why does HIV/AIDS bring about such contention, debate, and fear when presented to the general public? In contrast, why doesn't revealing a diagnosis of cancer bring about the same emotions? Could it be that people express greater dislike and hostility towards HIV/AIDS-positive individuals due to the diagnosed's gender, ethnicity, or perceived personal fault/responsibility for acquiring the disease?

HIV/AIDS Stigma

Human Immunodeficiency Virus and/or Acquired Immunodeficiency Virus (HIV/AIDS) is a disease that diminishes the immune system's protective capabilities and reportedly effects more than 34 million men, women, and children internationally (www.avert.org/worldstats.htm; www.cdc.org/hiv). HIV/AIDS is a life-threatening

disease that weakens microbe fighting capabilities and is transmitted via blood exchange, semen, vaginal secretions, and breast milk (www.avert.org/worldstats.htm; www.cdc.org/hiv). The primary mode of transmission within the United States is typically through unprotected sexual contact. In contrast, transmission in other countries (specifically third world countries) where treatment is unavailable or sparse, is predominantly through a mother's breast milk because infant survival rates depend upon the mothers' ability to nurse (http://www.unicefusa.org/work/hivaids/?gclid=CNStwebzt7gCFUqk4AodmzkAsw; www.avert.org/worldstats.htm; www.cdc.org/hiv).

A common stigma associated with individuals diagnosed with HIV/AIDS is that they are unclean, promiscuous, irresponsible, unknowledgeable, or abusers of drugs (www.cdc.org/hiv; Borchert & Rickabaugh, 1995). These faulty assumptions generally lead to social stigmas that are derived from stereotyping, personal prejudice, and discrimination. These assumptions may be projected from family members, friends, employers, healthcare providers/services, educators, etc., (Molero, Fuster, & Jetten, 2011) and may stem from a fear of contamination, ignorance about means of infection, or personal/moral viewpoints. In addition, individuals who are predisposed to being stereotyped, such as homosexuals, addicts, or sex workers, are commonly perceived as a "lesser" group within society and are thus viewed as deserving of an HIV positive status (Molero, et. al. 2011). Due to such stigmas, infected persons may hesitate to inform friends, family members, and sexual partners due to fear of taunting, rejection, gossip, or verbal/physical harassment. While the act of stereotyping can be learned from many different sectors, distinct areas where stereotyping is overwhelmingly apparent is within

the realm of religion, gender, ethnicity, and perceived personal responsibility (i.e. fault).

Morality Religiosity stigma associated with HIV/AIDS is generally related to personal knowledge, or lack of, concerning the disease and the level of religiosity an individual possesses. Persons with the virus tend to be viewed as unholy, unclean, or impure, whose disease is the direct result of their sinful behavior. Therefore, some religious individuals may believe persons with HIV/AIDS are being condemned for their immoral behavior and are worthy of an HIV/AIDS diagnosis (Muturi & An, 2010).

Moreover, Muturi and An (2010) found that religiosity was strongly associated with a person's level of religious stigma. As a result, individuals who displayed a higher level of religious stigma believed that HIV/AIDS was a sin not deserving of mercy. This ideal is likely due to the fact that homosexuality (sexual activity outside of the bounds of traditional marriage), infidelity, and drug use are considered immoral behaviors among many religious individuals. However, Muturi and An's research also discovered a positive aspect of religious persons, which promoted care and support for individuals affected by the disease (Muturi & An, 2010). While religion plays a key factor in a person's moral viewpoint on what behaviors are deemed acceptable, attributes beyond a person's realm of control (i.e. gender, ethnicity) also bring forth stigmatized biases.

Gender Female individuals diagnosed with HIV/AIDS reported experiencing feelings of worthlessness, guilt, anger, and depression (Wagner, Hart, Mohammed, Ivanova, Wong, & Loutfy, 2010; Muturi & An, 2010; Tshabalala & Visser, 2011). Women also stated that they feared reproach and isolation from their communities, family members, and friends based on other individual's communal/personal religious beliefs or ignorance based on modes of transmission. Furthermore, women reported

being fearful of becoming terminally ill and not being able to care for their children, which included dying and leaving their children without a mother or unintentionally passing the virus to a child/children (Wagner, et. al., 2010; Muturi & An, 2010; Tshabalala & Visser, 2011). Moreover, women with HIV/AIDS reportedly felt plagued with feelings of powerlessness and/or guilt, anger about the past, expressed destructive behavior patterns, experienced fear surrounding the expected reaction of others, and felt uncertainty about the future (Tshabalala & Visser, 2011).

Similar to females, male individuals diagnosed with HIV/AIDS expressed a clear fear of discloser due to anxiety concerning verbal/physical backlash from family, friends, romantic partners, employers, etc. Moreover, while heterosexual men reported difficulty in finding a partner who was accepting of their HIV/AIDS status, homosexual males expressed an even greater difficulty due to the fact they already believe themselves to be stigmatized based on their sexual preferences (Radcliffe, Doty, Hawkins, Gaskinds, Beidas, & Rudy, 2010; Dowshen, Binns, & Garofalo, 2009). Furthermore, men with HIV/AIDS also reported deliberate social isolation for fear their HIV/AIDS status would be exposed. This fear stemmed from the possibility of, when telling a partner of a positive-HIV/AIDS status, the diagnosed male would not be guaranteed privacy or personal respect. It does not simply appear to be the fear of rejection that is emotionally overwhelming it appears to also be the fear of potential betrayal. Will their privacy be kept? Can they truly trust friends, family members, and sexual partners to keep such a delicate secret?

Additionally, Cole and colleagues (1996) found that homosexual men with HIV/AIDS who concealed their sexual identity had greater advancement with their level of infection, a greater likelihood for illness, and a higher mortality rate compared to men

who were "mostly out of the closet" or "completely out of the closet" (Cole, Kemeny, Taylor, Visscher, & Fahey, 1996). Interestingly, males also presented the same emotional and psychological symptoms of depression, low self-esteem, and shame caused by self-blame as their female counterparts, which ultimately led to a greater risk of cognitive dysfunctions and physical ailments (Gaskinds, et. al., 2010).

Ethnicity The next realm of stigmatization this study took into consideration was ethnicity. Black individuals with a positive HIV/AIDS status reported being fearful of rejection from family members, religious groups, and health care organizations, because the disease is so closely associated with homosexual behavior which is commonly looked down upon within the black community. Due to this fact, homosexual males are at a higher risk for transmission since they may choose to avoid disclosure of their HIV/AIDS status to their sexual partners. This lack of disclosure may be due to personal denial of one's sexual orientation or the male in question may not consider himself to be in a "romantic" relationship with a male partner although actively engaging in sexual activity (Galvan, Davis, Banks, & Bing, 2008). This denial may be due to a social stigma surrounding black males who consider themselves to be heterosexual but have sexual relations with men "on the side" or while incarcerated. These individuals are less likely to disclose such information with their female partners, thus, placing the women within the community at a higher risk for contracting the virus as well (Galvan, et. al., 2008; http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/index.html).

Although there was a distinct difference in the rate of HIV/AIDS transmission between black individuals and white individuals, the Center for Disease Control found the rate of transmission among homosexual black men and homosexual white men to be similar, despite the difference in population size. Researchers believe black individuals are at a higher risk of contracting HIV/AIDS compared to white persons due to broader

social and economic factors, such as: limited access to health care, lower educational levels, lower income, higher unemployment rates, and a higher rate of incarceration http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/index.html).

Fault Perceived fault (controllability) for disease acquisition is a great indicator of how individuals affected by HIV/AIDS will be viewed by others. Fault for disease acquisition is likely to be based on gender-stereotypical, social roles. For instance, it is socially acceptable for a man to carry a condom in his wallet, but it is socially unacceptable for a woman to carry the same. Therefore, a woman engaging in unprotected sexual behavior is viewed as more socially acceptable, because she is not held responsible for providing appropriate protection. An opposing scenario is based on the acquisition of HIV/AIDS through intravenous drug use. Tarvis (1992) found negative stereotypes to be associated with HIV/AIDS positive women who developed the disease through drug use because it violates the socially acceptable female role. Tarvis also found that men who used injectable drugs were believed to do so based on situational factors (e.g. hanging with the guys), while less invasive means of reaching a high is deemed socially appropriate for women (e.g. pills or inhalants).

Prior research also indicates that people were more likely to express anger and aggressive behaviors toward persons with HIV/AIDS believed to be at fault for their current state of affairs, while empathy and pity was shown to those who were perceived to carry no personal responsibility (Steins & Weiner, 1999; Borchert & Rickabaugh, 1995). While researching women with HIV/AIDS, Teti and colleagues discovered a hierarchy of personal responsibility, which most of the participants attested to. The hierarchy of transmission ranged from a lower spectrum (those who acquired the disease from medical procedures or their jobs) to a higher spectrum (those who obtained the disease through unprotected, sexual contact or intravenous drug use) (Teti, Bowleg, &

Lloyd, 2010). The women who acquired the disease within the lower range of the spectrum were viewed as having less personal responsibility for their disease, while the women viewed to be within the upper range of the spectrum were perceived as deserving of their HIV/AIDS diagnosis (Teti, et. al., 2010). Once again, using cancer as the comparable disease, such a spectrum does not appear to exist within the realm of different cancer diagnoses. An individual diagnosed with cancer is not generally viewed as an immoral person, simply because of his/her diagnosis, nor is he/she denied treatment for fear of contamination. While HIV/AIDS and cancer are no respecter of persons, an individual's gender, ethnicity, and perceived level of personal fault for disease acquisition greatly affects how he/she is viewed and treated by those he/she comes into contact with.

For the purpose of discovering the extent of social stigmas surrounding HIV/AIDS positive individuals, counter targets with a diagnosis of cancer were used as a comparison statistic within the research process. In 2012, 1,638,910 men, women, and children living in the United States alone were diagnosed with some form of cancer (American Cancer Society, 2012). These diagnoses included forms of cancer such as: lung, cervical, liver, tongue, throat, breast, prostate, blood, etc. Factors such as smoking, drinking, chewing tobacco, obesity, inactivity, and unhealthy eating habits were all found to contribute to the development of said cancers (American Cancer Society, 2012; www.cancer.org). However, how many cancer diagnoses, where fault could have been present, were viewed as the result of an individual's personal choices?

The Current Study

The composition of the above research led to the purpose of the current study, which investigated the effects of stigma based on a target's gender, ethnicity, and perceived personal fault for disease acquisition. Thus, the study investigated the

distinction between implicit prejudices expressed towards HIV/AIDS positive individuals based on a target's gender, ethnicity, and perceived fault in comparison to the implicit prejudices expressed towards persons diagnosed with cancer based on the same mitigating factors.

The data collected from the current research was analyzed with two main designs. The first design consisted of a 2 (Target Disease: HIV/AIDS vs. cancer) X 2 (Target Gender: male vs. female) X 2 (Target Ethnicity: Black vs. White) X 2 (Target Type: learned vs. novel) within group repeated measures ANOVA design with the participant's reaction time being the dependent variable. The second design was comprised of a 2 (Target Disease: HIV/AIDS vs. cancer) X 2 (Target Gender: male vs. female) 2 (Target Ethnicity: Black vs. White) X 2 (Target Fault: fault vs. no fault) within group repeated measures ANOVA design also with the participant's reaction time being the dependent variable.

In conjunction with prior research, the current study investigated implicit prejudices based on exposure to stimuli. Thus, participants were exposed to half of the targets on two separate occasions (learned) while viewing the other half only once (novel) in order to decipher how one's personal magnitude of prejudice changed based on the targets degree of familiarity. By allowing participants two full nights of sleep, it was assumed that the initial exposure targets would become familiar to participants. This type of "familiarity" was expected to change a participant's indirect stigma/prejudice toward a non-familiar target to someone the participant had previously seen and could recall due to a sense of familiarity and recognition (Arms-Chavez, C. J., Enge, L. R., Rivera, L. O., & Zarate, M. A., 2013; Racsmány, M., Conway, M. A., & Demeter, G., 2009). To further investigate such questions, the current study examined the divergence of implicit prejudice expressed towards individuals with a diagnosis of HIV/AIDS based on the

specific factors noted above (i.e. gender, ethnicity, and level of perceived fault for disease acquisition). Results rendered from the implicit prejudice investigation concerning persons with HIV/AIDS were also examined in comparison to the results rendered from persons diagnosed with cancer based on the same factors.

Furthermore, two questionnaires were administered to investigate the potential correlation between a participant's personal level of religiosity and the amount of implicit prejudice expressed towards targets associated with HIV/AIDS.

General Hypothesis

Overall, the first hypothesis of the current study assumed that participants would express greater implicit prejudice towards the targets associated with HIV/AIDS while they would express less implicit prejudice toward the targets associated with cancer.

The second hypothesis of the current research speculated that participants would express less implicit prejudice towards the female targets diagnosed with HIV/AIDS, while they would express more implicit prejudice towards the male targets with HIV/AIDS. This assumption is believed due to higher levels of anger shown towards infected persons whose disease acquisition is thought to be the result of poor decisions (e.g. IV drug use, unprotected sexual contact, promiscuity), while empathy is generally shown towards the diagnosed whose disease was due to accidental or survival purposes (e.g. contaminated blood or breast milk).

The third hypothesis of the current study predicted that participants would express less implicit prejudice towards the White targets diagnosed with HIV/AIDS, while they would express more implicit prejudice towards the Black targets with HIV/AIDS.

The fourth general hypothesis assumed that participants would express less

implicit prejudice towards the targets viewed with no perception of personal fault for disease acquisition, while they would express more implicit prejudice towards targets believed to be at fault for disease acquisition.

Based on the predicted results from the first three hypotheses, it was also believed that the greatest expression of implicit prejudice would be expressed towards the black, males targets, who were believed to be at fault for their HIV/AIDS status, while the lowest degree of implicit prejudice would be expressed towards the white, female targets, who were perceived with little or no fault for their HIV/AIDS status. This discrepancy is thought to be attributed to the target's perceived level of personal control over the infection-causing situation (Steins & Weiner, 1999).

In addition, it was assumed that participants would express less implicit prejudice towards the learned targets viewed on the first and second day of the experiment, while they would express more implicit prejudice towards the novel targets viewed only on the second day. This ideal is thought to be the result of perceived target familiarity surrounding the targets viewed on the first and second day of the experiment. It is hypothesized that participants will express less implicit prejudice towards the learned targets due to target recognition.

The final hypothesis believed that participants who were more religious would express a greater amount of prejudice toward targets with HIV/AIDS, while participants who perceived themselves as less religious would express less implicit prejudice toward the HIV/AIDS targets.

Methods

Participants

Study participants consisted of 86 (62 females, 24 males) undergraduate

volunteers enrolled in a small Southeastern university at the time of the experiment with course credit being awarded for participation. The majority of participants were raised in the state of Alabama (78%), were primarily white (54%) or black (35%), and identified as heterosexual (79%). Overall, the majority of participants were Protestant Christion (58%), Evangelical Christian (12%), or did not affiliate with a religion (19%). The additional 11% of participants identified themselves as Catholic (7%), Muslim (2%), Buddhist (1%), or Hindu (1%). Moreover, 3 outliers had to be eliminated from the data analysis due to noncompliance with experimental protocol. In addition, one participant reported a prior diagnosis of cancer which led to the removal of said participant's data. Therefore, the final number of participants was 82.

Materials and Procedure

Photo Stimuli. Materials included pictures of 8 white male targets, 8 white female targets, 8 black male targets, and 8 black female targets. Each target encompassed a frontal, head-and- neck, stimulus color photos with 75 dpi. The pictures were divided into 4 white females, 4 white males, 4 black females, and 4 black males "diagnosed" with an HIV/AIDS diagnosis. The other 4 white females, 4 white males, 4 black females, and 4 black males were associated with a cancer diagnosis. The photos were pilot-tested to ensure they were perceived by a general public as being of average attractiveness. Each stimulus photo was approximately 7cm high (subtending 6.47 degrees of visual angel) and 6 cm wide (subtending 5.55 degrees of visual angel). All persons in the stimulus photos were from the same approximate age group (19-25) and did not have any distracting features (e.g. facial piercings, facial tattoos).

Word Stimuli. Materials also included 8 positive words (e.g. love, fun), 8 negative words (e.g. angry, mean), and 16 nonwords (e.g. folut, losri).

Questionnaires. Three questionnaires were administered within the current

study- a demographic questionnaire, subtle and blatant prejudice questionnaire, and religiosity questionnaire. The demographic questionnaire consisted of questions pertaining to the participant's age, gender, sexual orientation, educational level, financial status, marital status, HIV/AIDS status, and past or present cancer status. The subtle and blatant questionnaire (Coenders, M., Scheepers, P., Sniderman, P. M., & Verberk, G., 2001) was administered at the end of the experiment and consisted of questions pertaining to the blatant and/or subtle demonstration of prejudice towards individuals infected with HIV/AIDS. The subtle and blatant questionnaire was comprised of questions such as: "I would be willing to have a sexual relationship with someone who has HIV/AIDS"; "I feel sympathy for someone infected with HIV/AIDS"; and "I would not mind if a suitably qualified person with HIV/AIDS was my boss." Lastly, the religiosity questionnaire (Worthington, E. L., Jr., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., Schmitt, M. M., Berry, J. T., Bursley, K. H., & Conner, L., 2012) consisted of questions pertaining to the participant's spectrum of religious beliefs. The religiosity questionnaire was comprised of questions such as: "I spend time trying to grow in understanding of my faith"; "Religious beliefs influence all my dealings in life."; and "I often read books and magazines about my faith."

Implicit testing materials. The Lexical Decision Task was programmed and administered through SuperLab 4.0 software (Cedrus Corporation, 2007). This LDT was twice completed by participants in a randomized order so that no two participants would see the candidates/targets in the same sequence.

Procedure

The current study took place in room 212-C of Goodwin Hall. Participants were told that the experiment pertained to illnesses which could potentially be fatal. Thus, participants were asked to pretend they were physicians whose job was to assess each

patient (target) by their associated disease to see how well they could remember the patients based upon each target's diagnosis. Participants were asked to form an impression of each patient to help the participants with recall during the second day of experimentation. After filling out an electronic informed consent document and the demographic questionnaire online, participants progressed to the first official section of the experiment. This section consisted of viewing each patient (target) with the patient's specified disease and scenario of acquisition. After viewing and making an impression of the targets, participants were asked to return to the same location, exactly 48 hours later to participate in the second part of the study.

The second day of the current study consisted of participants viewing the targets previously seen during the initial session (Day 1) along with 16 additional targets whom had not been viewed previously (novel stimuli). The novel stimulus pictures contained an equal number of targets who also had a diagnosis of HIV/AIDS and/or cancer.

Lexical decision task (LDT). During the second part of the experiment an LDT was administered to all participants. Before the official experimental trials began, participants completed 10-12 practice trials in order for them to become accustomed to the controls used for the test. The practice trials consisted of neutral stimuli pictures (i.e., a banana and a pear), along with neutral words (i.e., banana, apple, grape, pear) or nonwords (i.e. logi). Participants were then asked to accurately indicate whether the letter string was a word or nonword by pressing a corresponding button on their key pad. The official experimental trials followed in the same manner.

The photos used within the experimental trials consisted of 16 learned targets (4 white males, 4 white females, 4 black males, 4 black females) whom participants viewed during the first day of experimentation, and 16 novel/new targets (4 white males, 4 white females, 4 black males, 4 black females) who had not been previously seen by the

participants. After viewing a target photo, participants were then shown a fixation screen for approximately 50ms followed by a positive, negative, or nonword written in black, on the center of the computer screen with a white background for 1500ms. Next, participants were asked to respond to the letter string following the picture by deciphering whether the letters were representative of a word or nonword. Answers were acquired by participants pressing the correct corresponding button on the keypad connected to the computer. The letter string remained on the screen until the participant had responded or the 1500ms time limit was reached.

After viewing the first randomized round of photo stimuli and corresponding letter strings a fixation screen was presented for another 500ms before participants began the viewing and responding process in a randomized order for a second time. After completion of the two randomized LDT's, participants were asked to complete the religiosity questionnaire. After completing the religiosity questionnaire, the participants were then asked to completed the subtle and blatant prejudice questionnaire. Upon finalizing the two questionnaires, participants read an electronic debriefing form before exiting the room.

Results

Consistent with prior research (Zárate, Sanders, & Garza, 2000; Zárate, Stoever, MacLin, & Arms-Chavez, 2008), only appropriate response times (RTs) between 200 ms and 1500 ms were analyzed. RTs below 200 ms are considered too fast for participants to have accurately completed the task and RTs above 1500 ms are considered too slow to provide a credible assessment of processing speed. When the aggregate means were evaluated for normality, the response latencies were positively skewed. Thus, all response latencies were replaced by their inverse (Ratcliff, 1993). This transformation produced a

normal distribution of latency data. All tests were conducted using the transformed means, but for clarity of interpretation, the raw means are reported below.

General Prejudice Analysis

In order to assess general prejudice against all targets, the data was analyzed within a 2 (Target Ethnicity: Black vs. White) X 2 (Target Gender: male vs. female) X 2 (Target Disease: HIV/AIDS vs. cancer) X 2 (Target Type: learned vs. novel) X 2 (Word Type: positive vs. negative) repeated measures ANOVA with RTs serving as the dependent variable. This analysis produced multiple main effects that remained true throughout all other analyses. Analyses first revealed a significant main effect of Word Type where participants responded significantly faster to the positive words ($M = 536$, $SD = 71$) than to the negative words ($M = 563$, $SD = 75$), $F\,(1,81) = 161.81$, $p = <.0001$. Secondly, the analysis revealed a significant main effect for Target Disease where participants responded significantly faster to the cancer targets ($M = 544$, $SD = 73$) than to the HIV/AIDS targets ($M = 554$, $SD = 73$), $F\,(1,81) = 17.72$, $p = <.0001$. Thirdly, the analysis revealed a significant main effect for Target Ethnicity where participants responded significantly faster to the Black targets ($M = 548$, $SD = 73$) than to the White targets ($M = 551$, $SD = 73$), $F(1,81) = 6.83$, $p = .0107$. Lastly, the analysis revealed a fourth significant main effect for Target Gender where participants responded significantly faster to the female targets ($M = 545$, $SD = 72$) than to the male targets ($M = 554$, $SD = 72$), $F(1,81) = 15.37$, $p = .0002$.

In addition to the four significant main effects, the analysis also revealed a significant 5-way interaction between Target Ethnicity X Target Gender X Target Disease X Target Type X Word Type, $F(1,81) = 6.13$, $p = .0154$. To decompose this 5-way interaction, the analysis was first separated by Target Type to identify a change in participant perception and prejudice over time. The analysis consisting of only the

learned targets revealed a significant interaction between Target Ethnicity X Target Gender X Target Disease X Word Type, $F(1,81) = 4.44$, $p = .0383$. In order to further investigate this 4-way interaction, the analysis was further decomposed by Target Disease. Contrary to hypotheses, the analysis comprised of the learned HIV/AIDS targets failed to reveal any significant results for the expected 3-way interaction between Target Ethnicity X Target Gender X Word Type, $F(1,81) = .53$, *ns*. Unexpectedly, however, the analysis of the learned cancer targets did reveal a significant 3-way interaction between Target Ethnicity X Target Gender X Word Type, $F(1,81) = 13.16$, $p = .0005$. Therefore, the 3-way interaction for the learned cancer analysis was again separated and analyzed by Word Type. While the analysis for the positive words was not significant for the learned cancer targets, the analysis with negative words revealed a significant interaction between Target Ethnicity X Target Gender, $F(1,81) = 19.96$, $p = <.0001$. Concerning Target Ethnicity, results revealed that participants responded significantly faster to the negative words associated with the learned Black female cancer targets ($M = 536$, $SD = 86$) than to the negative words associated with the learned White female cancer targets ($M = 582$, $SD = 93$), $F(1,81) = 30.89$, $p = <.0001$. Therefore, as predicted by hypotheses which assumed participants would have a more negative association to the Black targets, results did reveal that participants expressed significantly greater implicit prejudice towards the Black targets. Interestingly, this discrepancy was found only with the learned Black targets. Contrary to hypotheses, no significant amount of prejudice was expressed towards the learned Black HIV/AIDS targets. However, unforeseen by hypotheses, results revealed that prejudice towards the learned cancer targets was also significant.

Concerning Target Gender, results revealed that participants responded significantly faster to the negative words associated with the learned White male cancer

targets ($M = 543$, $SD = 90$) than to the negative words associated with the learned White female cancer targets ($M = 582$, $SD = 93$), $F(1,81) = 21.24$, $p = <.0001$. In other words, in concert with hypotheses that participants would have a more positive association to the female targets, results revealed that participants expressed significantly more implicit prejudice towards the learned White male cancer targets than to the learned White female cancer targets. However, the same gender difference was not significant for the learned Black targets, $F(1,81) = 3.9$, *ns*. As with target ethnicity, no significant amount of prejudice was expressed towards the learned male HIV/AIDS targets.

The next analysis was comprised solely of the novel/new targets. While a significant 4-way interaction between Target Ethnicity X Target Gender X Target Disease X Word Type was found for the learned targets, results concerning the same 4-way interaction were not significant for the novel targets, $F(1,81) = 1.71$, *ns*. However, a significant 3-way interaction between Target Ethnicity X Target Disease X Word Type was found solely for the novel targets, $F(1,81) = 6.47$, $p = .0129$. Therefore, this 3-way interaction was further separated and analyzed by Target Disease. The analysis concerning the novel HIV/AIDS targets revealed a marginally significant interaction between Target Ethnicity X Word Type, $F(1,81) = 3.95$, $p = .0503$. This 2-way interaction was then further decomposed by Word Type. Concerning the association between Target Ethnicity and negative words, results revealed that participants responded significantly faster to the negative words associated with the novel Black HIV/AIDS targets ($M = 554$, $SD = 85$) than to the negative words associated with the novel White HIV/AIDS targets ($M = 581$, $SD = 89$), $F(1,81) = 16.36$, $p = <.0001$. Thus, as expected, participants expressed significantly greater implicit prejudice towards the novel Black targets with HIV/AIDS than to the novel White targets with HIV/AIDS. However, no significant difference was found when comparing the positive words associated with the

novel Black HIV/AIDS targets with the novel White HIV/AIDS targets, $F(1,81) = 3.84$, *ns*.

Furthermore, the analysis comprised of the novel cancer targets also resulted in a significant 2-way interaction between Target Ethnicity X Word Type, $F(1,81) = 30.38$, $p = <.0001$. Thus, this 2-way interaction for the novel cancer analysis was also decomposed by Word Type. Concerning the association between Target Ethnicity and positive words, results revealed that participants responded significantly faster to the positive words associated with the novel White cancer targets ($M = 525$, $SD = 82$) than to the positive words associated with the novel Black cancer targets ($M = 558$, $SD = 82$). In other words, as expected, participants also expressed a more positive association towards the novel White targets with cancer than to the novel Black targets with cancer. However, no significant difference was found when comparing the negative words associated with the novel White cancer targets to the novel Black cancer targets, $F(1,81) = 3.15$, *ns*.

The main analysis for the novel targets also revealed three significant 2-way interactions. The first significant 2-way interaction was significant between Target Disease X Word Type, $F(1,81) = 14.64$, $p = .0003$. Concerning the association between Target Disease and positive words, results revealed that participants responded significantly faster to the positive words associated with the novel HIV/AIDS targets ($M = 527$, $SD = 67$) than to the positive words associated with the novel cancer targets ($M = 542$, $SD = 77$), $F(1,81) = 12.67$, $p = .0006$. Thus, in contrast to hypotheses which believed participants would respond negatively to the HIV/AIDS targets, results revealed that participants responded significantly faster to the negative words associated with the novel cancer targets ($M = 557$, $SD = 67$) in comparison to the negative words associated with the novel HIV/AIDS targets ($M = 568$, $SD = 79$), $F(1,81) = 5.92$, $p = .0171$. Thus,

in opposition to hypotheses, participants expressed a more positive association towards the novel targets with HIV/AIDS while they expressed a more negative association towards the novel cancer targets.

The second 2-way interaction was significant between Target Gender X Word Type, $F(1,81) = 16.42$, $p = .0001$. Concerning the association between Target Gender and positive words, results revealed that participants responded significantly faster to the positive words associated with the novel female targets ($M = 530$, $SD = 77$) than to the positive words associated with the novel male targets ($M = 538$, $SD = 69$), $F(1,81) = 5.24$, $p = .0247$. Likewise, participants also responded significantly faster to the negative words associated with the novel male targets ($M = 556$, $SD = 80$) than to the negative words associated with the novel female targets ($M = 569$, $SD = 75$), $F(1,81) = 11.20$, $p = .0012$. In other words, as predicted by hypotheses which assumed participants would respond positively to the female targets, participants did express a more positive association towards the novel female targets while they expressed a more negative association towards the novel male targets.

The third significant 2-way interaction was between Target Ethnicity X Word Type, $F(1,81) = 29.50$, $p = <.0001$. Concerning the association between Target Ethnicity and positive words, results revealed that participants responded significantly faster to the positive words associated with the novel White targets ($M = 528$, $SD = 72$) than to the positive words associated with the novel Black targets ($M= 541$, $SD = 72$), $F(1,81) = 10.15$, $p = .0021$. In concert with this finding, results also revealed that participants responded significantly faster to the negative words associated with the novel Black targets ($M = 552$, $SD = 78$) than to the negative words associated with the novel White targets ($M = 573$, $SD =79$), $F(1,81) = 19.24$, $p = <.0001$. Thus, as originally hypothesized that participants would express more implicit prejudice towards the Black targets,

participants did express a more positive association toward the novel White targets while they expressed a more negative association toward the novel Black targets.

Fault Analysis

In order to assess prejudice against the learned targets based on fault perceptions, the data was analyzed within a 2 (Target Ethnicity: Black vs. White) X 2 (Target Gender: male vs. female) X 2 (Target Disease: HIV/AIDS vs. cancer) X 2 (Target Fault: fault for disease acquisition vs. no fault for disease acquisition) X 2 (Word Type: positive vs. negative) repeated measures ANOVA with RTs serving as the dependent variable. This analysis produced multiple main effects that remained true throughout all other analyses. Analyses first revealed a significant main effect of Word Type where participants responded significantly faster to the positive words ($M = 537$, $SD = 76$) than to the negative words ($M = 564$, $SD = 78$), $F(1,70) = 109.82$, $p = <.0001$. Secondly, the analysis revealed a significant main effect for Target Disease where participants responded significantly faster to the cancer targets ($M = 539$, $SD = 76$) than to the HIV/AIDS targets ($M = 562$, $SD = 79$), $F(1,70) = 59.80$, $p = <.0001$. Thirdly, the analysis revealed a significant main effect for Target Fault where participants responded significantly faster to the targets perceived to be at fault for disease acquisition ($M = 542$, $SD = 74$) than to the targets perceived with no fault for disease acquisition ($M = 563$, $SD = 81$), $F(1,70) = 27.80$, $p = <.0001$. Lastly, the analysis revealed a fourth significant main effect for Target Gender where participants responded significantly faster to the female targets ($M = 540$, $SD = 74$) than to the male targets ($M = 561$, $SD = 80$), $F(1,70) = 54.90$, $p = <.0001$.

The analysis of perceived target fault also revealed three significant 2-way interactions that remained true throughout all analyses. The first significant 2-way interaction was between Target Disease X Target Fault, $F(1,70) = 14.64$, $p = .0003$.

Concerning the association between Target Disease and fault, results revealed that participants responded significantly faster to the HIV/AIDS targets associated with fault for disease acquisition ($M = 536$, $SD = 78$) than to the cancer targets associated with fault for disease acquisition ($M = 546$, $SD = 73$), $F(1,81) = 13.34$, $p = .0005$. Furthermore, results also revealed that participants responded significantly faster to the cancer targets associated with no fault for disease acquisition ($M = 534$, $SD = 83$) than to the HIV/AIDS targets associated with no fault ($M = 589$, $SD = 87$), $F(1,81) = 126.32$, $p = <.0001$. In other words, as hypothesized, results revealed that participants did express a greater association towards personal fault for disease acquisition with the HIV/AIDS targets while they expressed a greater association with no fault for disease acquisition with the cancer targets.

The second 2-way interaction was significant between Target Ethnicity X Target Fault, $F(1,70) = 28.96$, $p = <.0001$. Concerning the association between Target Ethnicity and fault, results revealed that participants responded significantly faster to the Black targets associated with fault for disease acquisition ($M = 532$, $SD = 72$) than to the White targets associated with fault ($M = 550$, $SD = 80$), $F(1,81) = 31.58$, $p = <.0001$. However, no significant difference was found when comparing the Black targets perceived with no fault for disease acquisition with the White targets perceived with no fault, $F(1,81) = 3.70$, $p = .0579$, *ns*. Moreover, results also revealed that participants responded significantly faster to the Black targets associated with personal fault ($M = 532$, $SD = 72$) when compared to the Black targets associated with no fault ($M = 567$, $SD = 88$), $F(1,81) = 50.75$, $p = <.0001$. However, no significant difference was found when comparing the White targets perceived with fault for disease acquisition when compared to the White targets associated with no fault, $F(1,81) = 0.00$, $p = <.9650$. In other words, as predicted that participants would associate fault for disease acquisition with Black targets, results

did reveal that participants were more likely to associate fault for disease acquisition overall with the Black targets.

The third 2-way interaction was significant between Target Gender X Target Fault, $F(1,70) = 64.09$, $p = <.0001$. Concerning the association between Target Gender and fault, results revealed that participants responded significantly faster to the female targets associated with no fault for disease acquisition ($M = 538$, $SD = 80$) than to the male targets associated with no fault ($M = 583$, $SD = 88$), $F(1,81) = 90.34$, $p = <.0001$. However, no significant difference was found when comparing the male targets perceived with fault for disease acquisition to the female targets with perceived fault, $F(1,81) = 2.36$, $p = .1281$, *ns*. Interestingly, results also revealed that participants responded significantly faster to the male targets associated with fault ($M = 539$, $SD = 79$) than to the male targets associated with no personal fault ($M = 583$, $SD = 88$), $F(1,81) = 64.41$, $p = <.0001$. Moreover, participants also responded significantly faster to the female targets associated with no fault for disease acquisition ($M = 538$, $SD = 80$) than to the female targets associated with fault ($M = 543$, $SD = 72$), $F(1,81) = 5.02$, $p = <.0278$. Thus, in concert with hypotheses that participants would associate fault for disease acquisition with male targets, results did reveal that participants were more likely to associate fault for disease acquisition with the male targets while placing a greater association of possessing no fault with the female targets.

In addition to the multiple 2-way interactions which resulted from the fault analysis, a 3-way interaction between Target Ethnicity X Target Fault X Word Type was also found, $F(1,70) = 17.41$, $p = <.0001$. To further investigate this 3-way interaction between the targets perceived to be at fault for disease acquisition and those viewed with no personal fault, the analysis was further decomposed by Target Fault. The analysis for the at fault targets revealed a significant interaction between Target Ethnicity X Word

Type, $F(1,81) = 7.15$, $p = .0009$. Concerning the association between Target Ethnicity and negative words, results revealed that participants responded significantly faster to the negative words associated with the Black targets perceived with fault for disease acquisition ($M = 539$, $SD = 79$) than to the negative words associated with the White targets perceived with fault ($M = 570$, $SD = 90$), $F(1,81) = 37.66$, $p = <.0001$. Interestingly, participants also responded significantly faster to the positive words associated with the Black targets perceived with fault for disease acquisition ($M = 524$, $SD = 77$) than to the positive words associated with the White targets at fault for disease acquisition ($M = 534$, $SD = 80$), $F(1,81) = 8.02$, $p = .0058$. In other words, as predicted by hypotheses, participants were faster to respond to the Black targets overall. However, in contrast with initial hypotheses that participates would respond negatively to the Black targets, results revealed that participants responded significantly faster to both the negative and positive words associated with the Black targets.

Concerning the analysis for the targets perceived with no fault for disease acquisition, the data were also decomposed by Target Fault. The analysis for the targets associated with no fault for disease acquisition revealed a significant interaction between Target Ethnicity X Word Type, $F(1,81) = 6.18$, $p = .0150$. Concerning the association between Target Ethnicity and negative words, results revealed that participants responded significantly faster to the negative words associated with the White targets perceived with no personal fault for disease acquisition ($M = 559$, $SD = 76$) compared with the negative words associated with the Black targets viewed with no fault ($M = 598$, $SD = 105$), $F(1,81) = 10.83$, $p = <.0015$. Interestingly, no significant difference was found between the positive words associated with the White targets perceived with no fault for disease acquisition when compared with the Black targets associated with no fault, $F(1,81) = .12$, $p = .12$. *ns*. Thus, in contrast to initial hypotheses that participants would have a greater

negative association to the Black targets, results revealed that participants expressed more implicit prejudice towards the White targets perceived with no fault for disease acquisition while they expressed less implicit prejudice towards the Black targets with no fault for disease acquisition.

The analysis for fault further revealed a significant 5-way interaction between Target Ethnicity X Target Gender X Target Disease X Target Fault X Word Type, $F(1,81) = 10.73$, $p = .0016$. To decompose this 5-way interaction, the analysis was separated by Target Disease. The analysis for overall prejudice, when separated by HIV/AIDS, revealed a significant 3-way interaction between Target Gender X Target Fault X Word Type, $F(1,70) = 15.18$, $p = .0002$. Therefore, the 3-way interaction was again separated and analyzed by Target Fault. The analysis of perceived fault for disease acquisition revealed a significant interaction between Target Gender X Word Type, $F(1,81) = 8.65$, $p = .0043$. Concerning the association between perceived Target Gender and negative words, results revealed that participants responded significantly faster to the negative words associated with the male HIV/AIDS targets at fault for disease acquisition ($M = 533$, $SD = 109$) than to the negative words associated with the female HIV/AIDS targets at fault for disease acquisition ($M = 549$, $SD = 86$), $F(1,81) = 5.46$, $p = .0219$. In concert with this, participants also responded significantly faster to the positive words associated with the female HIV/AIDS targets perceived with fault for disease acquisition ($M = 517$, $SD = 80$) than to the positive words associated with the male HIV/AIDS targets associated with fault for disease acquisition ($M = 547$, $SD = 122$) $F(1,81) = 4.05$, $p = .0474$. Therefore, as expected by hypotheses which assumed participants would have a more negative association to the males perceived with fault, results revealed that participants expressed significantly greater implicit prejudice toward the male HIV/AIDS targets associated with fault for disease acquisition than to the female HIV/AIDS targets

associated with fault. However, in contrast to hypotheses, results revealed that participants responded significantly faster to the negative words associated with the female HIV/AIDS targets not at fault for disease acquisition ($M = 555$, $SD = 99$) than to the negative words associated with the male HIV/AIDS targets not at fault for disease acquisition ($M = 691$, $SD = 149$), $F(1,81) = 57.69$, $p = <.0001$. Interestingly, participants also responded significantly faster to the positive words associated with the female HIV/AIDS targets not at fault for disease acquisition ($M = 534$, $SD = 100$) than to the positive words associated with the male HIV/AIDS targets perceived with no fault ($M = 599$, $SD = 105$), $F(1,81) = 61.44$, $p = <.0001$. In other words, while participants had a more negative association to the female targets which was contradictory to initial hypotheses, participants did respond faster to the female targets overall despite perceived fault for disease acquisition which was assumed by hypotheses.

Concerning the analysis of cancer targets, a significant 4–way interaction between Target Ethnicity X Target Gender X Target Fault X Word Type was found $F(1,70) = 9.71$, $p = .0250$. To decompose this 4-way interaction, the analysis was first separated by Target Fault. The analysis for perceived fault revealed a significant interaction between Target Ethnicity X Target Gender X Word Type, $F(1,81) = 23.66$, $p = <.0001$. In order to further investigate this 3-way interaction, the analysis was further decomposed by Word Type to compare Target Ethnicity X Target Gender. While the analysis for the positive words failed to reveal any significant results, $F(1,81) = .41$, *ns.*, the analysis did reveal a significant 2-way interaction between Target Ethnicity X Target Gender for the negative words, $F(1,81) = 42.50$, $p = <.0001$.

Concerning the association between Target Gender and negative words, results revealed that participants responded significantly faster to the negative words associated with the Black female cancer targets at fault for disease acquisition ($M = 528$, $SD = 106$)

than to the negative words associated with the White female cancer targets perceived with fault for disease acquisition ($M = 626$, $SD = 113$), $F(1,81) = 80.75$, $p = <.0001$. However, no significant difference was found between the negative words associated with the White male cancer targets at fault for disease acquisition ($M = 556$, $SD = 108$) and the negative words associated with the Black male cancer targets viewed with fault ($M = 560$, $SD = 101$), $F(1,81) = .03$, *ns*. Thus, as hypothesized, participants did express significantly more implicit prejudice towards the Black female cancer targets perceived with fault for disease acquisition than to the White female cancer targets associated with fault. Concerning Target Ethnicity and negative words, results revealed that participants responded significantly faster to the negative words associated with the Black female cancer targets perceived with fault for disease acquisition ($M = 528$, $SD = 106$) than to the negative words associated with the Black male cancer targets associated with personal fault ($M = 560$, $SD = 101$), $F(1,81) = 15.20$, $p = .0002$. Thus, in opposition to initial hypotheses that participants would express more implicit prejudice toward the Black male targets, results revealed that participants expressed more implicit prejudice towards the Black female cancer targets perceived with fault for disease acquisition than to the Black male cancer targets viewed with fault for disease acquisition. Furthermore, results also revealed that participants responded significantly faster to the negative words associated with the White male cancer targets perceived with fault for disease acquisition ($M = 556$, $SD = 108$) than to the negative words associated with the White female cancer targets perceived with fault ($M = 626$, $SD = 113$), $F(1,81) = 36.05$, $p = <.0001$. In other words, as predicted, participants expressed significantly more implicit prejudice towards the White male cancer targets associated with fault for disease acquisition than to the White female cancer targets associated with fault.

Correlations

Religiosity Questionnaire As shown in Table 1, the results for the religiosity questionnaire revealed that participants who considered themselves to be more religious had a significantly faster association to the learned Black male targets diagnosed with HIV/AIDS when associated with positive words. Thus, the more religious a participant believed him/herself to be, the more positive their association toward the learned Black targets with HIV/AIDS. In contrast, results also revealed that participants who considered themselves to be more religious had a significantly faster association to the novel Black male and female HIV/AIDS targets when associated with negative words. In other words, the more religious the participant, the more negative his/her association with the novel Black targets diagnosed with HIV/AIDS.

Interestingly, results further indicate that highly religious participants also had a significantly faster association to the learned Black male cancer targets when associated with negative words. Thus, the more religious the participant, the more negative their association toward novel Black male targets with cancer.

As indicated by Table 2, results of the religiosity questionnaire indicate that participants who identified themselves as more religious also had a significantly faster association to the learned White male targets with HIV/AIDS when associated with positive words. Thus, the more religious a participant believed him/herself to be, the more positive the association towards learned White males diagnosed with HIV/AIDS. In concert with this, results also found that participants who considered themselves to be more religious had a significantly faster association to the learned White male and female cancer targets when associated with positive words. In other words, the more religious a participant claimed to be, the more positive the association toward learned White males/female targets diagnosed with cancer. In contrast, results also indicate that highly

religious participants had a significantly faster association toward the novel White male targets with HIV/AIDS when associated with negative words. In other words, religious participants were more likely to have a negative association towards novel White males diagnosed with HIV/AIDS. Furthermore, results further indicate that participants who considered themselves to be more religious had a significantly faster association to negative words when associated with novel White male and female targets diagnosed with cancer.

Surprisingly, as indicated by Table 3, results revealed that participants who considered themselves to be more religious had a significantly faster association to negative words when paired with Black female targets diagnosed with HIV/AIDS who were considered to have no fault for disease acquisition. Thus, religious participants had a more negative association toward the Black female targets with HIV/AIDS although the targets possessed no fault for disease acquisition.

In conclusion, the results from Table 4 indicate that highly religious participants had a significantly faster association to negative words when associated with White female targets diagnosed with HIV/AIDS perceived to be at fault for disease acquisition. Thus, the more religious the participant believed him/herself to be, the more negative their association toward White female targets with HIV/AIDS who were considered to be at fault for disease acquisition. Interestingly, in contrast, results also revealed that participants who considered themselves to be more religious had a significantly faster association to positive words when associated with White male targets diagnosed with HIV/AIDS who were believed to possess no fault for disease acquisition. Thus, religious participants expressed a more positive association to White male targets with HIV/AIDS who were perceived with having no fault for disease acquisition.

Subtle and Blatant Prejudice Scale Interestingly, while the religiosity questionnaire rendered interesting and significant findings, no significant results were found concerning the subtle and blatant prejudice scale.

Discussion

The aim of the current study was to assess implicit prejudice expressed towards targets "diagnosed" with HIV/AIDS based on the target's gender, ethnicity, and perceived personal fault for disease acquisition. To assess the full ramification of implicit prejudice expressed towards the HIV/AIDS targets, implicit prejudice expressed towards counter targets "diagnosed" with cancer were also analyzed based on the same three factors. Based on prior research surrounding stereotypes incumbent on an individual's gender, ethnicity, and perceived fault for disease acquisition, six main hypotheses were proposed.

The first hypothesis assumed that participants would express more implicit prejudice towards the targets associated with HIV/AIDS. While this hypothesis was not supported for the learned HIV/AIDS targets, results revealed that participants were more likely to express implicit prejudice towards the novel/new HIV/AIDS targets. This lack of findings for learned targets may be due to perceived personal fault for disease acquisition. While participants were provided with specific methods for disease acquisition concerning the learned targets with HIV/AIDS, the novel targets did not provide any form of explanation for disease methodology. Thus, participants may have expressed more implicit prejudice towards the novel targets with HIV/AIDS due to stereotypical gender and/or ethnic biases, or perceived fault for disease acquisition due to lack of target information concerning disease methodology.

The second hypothesis speculated that participants would express more implicit prejudice towards the male targets diagnosed with HIV/AIDS, while they would express

less implicit prejudice towards the female targets with HIV/AIDS. The results of the current study were in congruence with prior research on stereotypic gender roles which have revealed that women are considered to be more passive participants in sexual interactions and drug use while men are considered to be responsible for providing protection for sexual activities and viewed as being the gateway to a female's drug use (Tarvis, 1992). While results were not significant for the learned targets and gender, results for the novel targets revealed that participants had a more positive association toward the novel female targets while they expressed a more negative association toward the novel male targets. These findings may again be due to perceived fault for disease acquisition and lack of information concerning disease methodology pertaining to the novel targets.

The third hypothesis predicted that participants would express more implicit prejudice towards the Black targets diagnosed with HIV/AIDS, while they would express less implicit prejudice towards the White targets with HIV/AIDS. While the analysis for the learned targets was not significant for ethnicity, the results for the novel targets revealed that participants had a more positive association toward the novel White targets while they expressed a more negative association toward the novel Black targets. Thus, results concur with prior research surrounding stereotypic ethnic biases which reveal that black individuals are believed to be at a higher risk of contracting HIV/AIDS due to broader social and economic factors (i.e. limited access to health care, lower educational levels, lower income, higher unemployment rates, and a higher rate of incarceration (http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/index.html).

The fourth general hypothesis assumed that participants would express more

implicit prejudice towards HIV/AIDS targets viewed with personal fault for disease acquisition, while they would express less implicit prejudice towards HIV/AIDS targets believed to possess no personal fault for disease acquisition. The analysis for fault was solely comprised of the learned targets. In concert with hypotheses, results found that participants were more likely to associate fault for disease acquisition with the HIV/AIDS targets, and associate no fault for disease acquisition with the cancer targets. These results may be related to ideals surrounding perceived power and personal decision making in alignment with disease acquisition. Moreover, results align with prior research concerning stereotypic ideals which has found that individuals with HIV/AIDS may be viewed as unclean, promiscuous, irresponsible, unknowledgeable, or abusers of drugs which leads to a level of perceived personal fault for disease acquisition (www.cdc.org/hiv; Borchert & Rickabaugh, 1995).

Concerning gender and disease, results revealed that participants were more likely to associate fault for disease acquisition with the male targets and associate the female targets with no fault. However, in opposition to initial hypotheses, results indicate that participants also had a more negative association to the learned female HIV/AIDS targets viewed with no fault for disease acquisition, as opposed to the learned male HIV/AIDS target perceived with no fault. Interestingly, these results may be related to the stereotypic gender effect where individuals are more likely to attune to female targets. Moreover, in conjunction with hypotheses, the association between ethnicity and disease found that targets were more likely to associate the Black targets as possessing personal fault for disease acquisition while they were more likely to associate the White targets as possessing no fault. These results further concur with prior research surrounding

stereotypic ethnic biases which have found that black individuals may be associated with having a higher risk of contracting HIV/AIDS due to broader social and economic factors (http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/index.html).

In addition, it was assumed that participants would express more implicit prejudice towards the novel targets viewed on the second day of the experiment, while they would express less implicit prejudice towards the learned targets viewed on the first and second day of experimentation. In concert with hypotheses, the general analysis revealed that participants did express less implicit prejudice toward the learned targets while they expressed more implicit prejudice toward the novel targets. Results align with prior research which has found "familiarity" to be a key factor in changing an individual's indirect stigma/prejudice toward a non-familiar target. Familiarity is thought to alter personal biases by using exposure techniques to change a perceived stranger into someone previously seen which promotes a since of familiarity and recognition; thus, ultimately altering initial biases (Arms-Chavez, C. J., Enge, L. R., Rivera, L. O., & Zarate, M. A., 2013; Racsmány, M., Conway, M. A., & Demeter, G., 2009).

The final hypothesis believed that participants who were more religious would express a greater amount of prejudice towards targets associated with HIV/AIDS, while participants who perceived themselves as less religious would express less implicit prejudice towards the HIV/AIDS targets. In concert with prior research surrounding religious stigma and personal morality, results indicate that while some participants who considered themselves to be more religious were more likely to express a negative association towards the HIV/AIDS targets and targets with perceived fault for disease acquisition, other religious participants were more likely to expressed a more positive association. Thus, in conjunction with prior research, results appear to be divided. These

findings may potentially be due to common religious beliefs that persons with HIV/AIDS are viewed as unholy, unclean, or impure, whose disease is thought to be the direct result of sinful behavior. In contrast, research has also found that religious persons may also be more likely to promote care and support for persons affect by the disease (Muturi & An, 2010.)

Post Hoc Findings

While no original hypotheses were developed concerning the potential level of prejudice expressed towards cancer targets, results revealed a surprisingly significant amount of negative implicit prejudice associated with said targets. While prior research indicates that a diagnosis of cancer may bring about discrimination within the workplace due to absences, lack of personal energy, and required time off (McKenna, Fabian, Hurley, McMahon, & West, 2007), research has failed to investigate prejudice expressed toward individuals with cancer based on gender, ethnicity, and perceived personal fault for disease acquisition. The current study revealed several interesting findings concerning the learned cancer targets. The first unexpected outcome comprised of the novel targets found that participants had a more positive association overall to the new/novel HIV/AIDS targets while they expressed a more negative association toward the novel cancer targets; thus, expressing more implicit prejudice toward the novel cancer targets.

Interestingly, results further revealed that participants also had a more negative association to the Black female cancer targets in comparison to the White male cancer targets; thus, expressing more implicit prejudice toward Black female cancer targets. Furthermore, results also found that participants were more likely to have a negative association toward the Black female cancer targets overall despite perceived fault for disease acquisition. Finally, while no hypotheses were developed for the cancer targets

due to assumed lack of expressed prejudice, results further revealed that participants also had a more negative association to the novel male targets associated with cancer. Thus, while it was believed prejudice would be expressed solely toward the targets associated with HIV/AIDS, results ultimately found both the learned and novel cancer targets to be the focus of prejudicial expression.

Due to extensive prior research surrounding stigma and prejudice associated with persons diagnosed with HIV/AIDS, the results rendered from the current study concerning prejudice and cancer were completely unexpected. Thus, these findings may call into question the adequacy of public information surrounding HIV/AIDS and cancer. While prior research has found a more negative association expressed towards homosexuals, Black individuals, and males diagnosed with HIV/AIDS, research has yet to seriously delve into the effects stereotypes have concerning ideals associated with patients diagnosed with cancer. Therefore, it is of particular importance that future researchers investigate the potential negative stigmas and stereotypes placed on individuals diagnosed with cancer based on believed social constructs and perceived fault for disease acquisition. Would male cancer patients experience more prejudice? What about Black patients? Or patients who are believed to hold personal responsibility for developing the disease? While cancer does not denote the same fear of transference as HIV/AIDS, the potential for cancer patients to experience stigmatization and prejudice should not yet be negated.

Implications and Future Research

The current research demonstrates the prejudicial implications subsequent to the association between certain diseases and negative stereotypes. The negative stereotypes expressed towards individuals with HIV/AIDS and/or cancer may be due to one's fear of transference, lack of personal knowledge, or environmental background. Research has

found that people with HIV/AIDS experience stigmatization and prejudice through friends, family members, health care services, work affiliations, and religious groups (www.cdc.org/hiv; Borchert & Rickabaugh, 1995; Molero, Fuster, & Jetten, 2011). While researchers have investigated the effects of stigma on individuals diagnosed with HIV/AIDS, research has failed to focus on the perceptions and ideals people may have towards individuals diagnosed with cancer. Thus, future research should delve deeper into the concept of prejudice and personal fault for disease acquisition based on cancer diagnoses. An additional realm of research may want to focus on prejudice expressed towards individuals diagnosed with cancer based on the specificity and/or type of cancer.

Another implication from the current research focused on the stereotypic gender roles. Kimmel and Levine (1992) wrote about the social constructs surrounding masculine behavior which involves emotional and physical norms such as being in control. This stereotypic behavior is also supported by Sacco, et.al. (1993) who found that men are socially held responsible for providing protection before engaging in sexual activity. Moreover, research has also revealed that men with HIV/AIDS are generally associated with IV drug use, whereas women with HIV/AIDS are typically viewed as having acquired the disease through the introduction to illicit substances through their male counterparts (Schur, 1984).

An additional implication derived from the current research surrounds stereotypic ethnic biases. While the Center for Disease Control found the rate of transmission among homosexual black men and homosexual white men to be similar, despite the difference in population size, researchers also believe that black individuals are at a higher risk of contracting HIV/AIDS due to broader social and economic factors such as: limited access to health care, lower educational levels, lower income, higher unemployment rates, and a higher rate of incarceration

(http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/index.html).

Another implication derived from the current study is based on personal fault for disease acquisition. Results revealed that participants were less likely to express a negative emotion toward the HIV/AIDS targets who were considered to possess no personal fault for acquiring HIV/AIDS. This concept aligns with prior research which found that people were more likely to express anger and aggressive behaviors toward persons with HIV/AIDS who are believed to be personally responsible for acquiring the disease. However, research has found that empathy and pity are typically shown to HIV/AIDS carriers who are perceived to possess no personal responsibility (Steins & Weiner, 1999; Borchert & Rickabaugh, 1995). Interestingly, prior research based on prejudice and personal fault for disease acquisition has yet to be studied with cancer patients. While the current research found that participants were more likely to associate a negative stigma toward the cancer targets, a more intensive research method should be implored in an attempt to decipher the underlying cause of the negative association. Interestingly, prior research has investigated the psychological, emotional, and physical effects of cancer but has yet to delve into the realm of implicit prejudice.

An additional implication concerns the dynamic of familiarity. As results indicated, participants were less likely to have negative associations towards the learned targets whom they had the time to view and form an impression. By allowing participants the time to become familiar with the targets and the reason behind the target's disease, the participants were better prepared for recall when they saw the target's picture during the Lexical Decision Task. However, the concept of familiarity also corresponds with social stereotypic ideals that individuals use when making a quick initial judgment about a person with HIV/AIDS and/or cancer.

The final implication surrounds the concept of religiosity and prejudice. Why

hypotheses assumed that participants who considered themselves to be more religious would express more implicit prejudice towards the HIV/AIDS targets, results found the scenario to be moderately inconsistent with the hypotheses. For instance, in alignment with prior research, results revealed that some religious individuals had a negative association to those with HIV/AIDS while others were more positive. Thus, while religiosity stigmas may play a role in the negative prejudicial expression toward individuals diagnosed with HIV/AIDS, religious sources may also be found to be places of acceptance and forgiveness.

In conclusion, the generalizability of the current findings must be considered with the college student sample employed in this study. These stereotypes may be specific to college age, Caucasian, Christian, Southern individuals. Thus, employing a more diverse sample may provide further insight concerning perceptions and prejudices toward individuals diagnosed with HIV/AIDS and/or cancer based on ethnicity, gender, or fault for disease acquisition.

Conclusion

The results of the current study align with many of the personals biases individuals conform to (i.e. gender, ethnicity, fault, disease). Thus, results reinforce the ease with which most persons think/act negatively towards others whose appearance, behavior, or personal decision making may be different or not well understood. However, results also revealed an interesting component which found that most biases typically expressed towards those with HIV/AIDS who were familiar to participants were minimal and generally based on perceived responsibility for disease acquisition. Thus, the potential reduction in prejudice expressed toward individuals with HIV/AIDS may be due to the recent increase in education surrounding sexually transmitted infections or the current ideal of tolerance. In addition to the decrease in prejudice expressed towards

persons with HIV/AIDS found in the recent study, the analysis concerning the cancer targets also revealed interesting significant results. Unexpectedly, the general and fault analyses revealed that a significant amount of implicit prejudice was expressed towards the targets associated with cancer. While unforeseen, such peculiar results provides a broad pathway for new research to further investigate the potential motives and biases behind such unexpected prejudice.

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Table 1

Pearson Correlation Matrix among Prejudice and Religiosity Questionnaires: General Analysis among Black targets associated with positive/negative words (N=82)

	Prejudice Questionnaire	Religiosity Questionnaire
Learned Black Female AIDS Positive Words	-0.09437	-0.21986
Learned Black Female AIDS Negative Words	-0.06398	-0.21039
Learned Black Male AIDS Positive Words	0.13634	**-0.27295***
Learned Black Male AIDS Negative Words	0.00128	-0.19891
Novel Black Female AIDS Positive Words	0.07543	-0.22334
Novel Black Female AIDS Negative Words	0.05141	**-0.36717***
Novel Black Male AIDS Positive Words	-0.00561	-0.17320
Novel Black Male AIDS Negative Words	-0.11777	**-0.23366***
Learned Black Female Cancer Positive Words	0.09922	-0.21664
Learned Black Female Cancer Negative Words	0.04168	-0.18907
Learned Black Male Cancer Positive Words	-0.08696	-0.17114
Learned Black Male Cancer Negative Words	0.06668	**-0.23431***
Novel Black Female Cancer Positive Words	0.06042	-0.17634
Novel Black Female Cancer Negative Words	-0.04554	-0.10729
Novel Black Male Cancer Positive Words	0.04683	-0.22188
Novel Black Male Cancer Negative Words	0.10639	-0.18560

$p<.05$

Table 2

Pearson Correlation Matrix among Prejudice and Religiosity Questionnaires: General Analysis among White targets associated with positive/negative words (N=82)

Questionnaire	Prejudice Questionnaire	Religiosity
Learned White Female AIDS Positive Words	0.04387	-0.15430
Learned White Female AIDS Negative Words	-0.02704	-0.16745
Learned White Male AIDS Positive Words	0.07128	**-0.24720***
Learned White Male AIDS Negative Words	0.09592	-0.12368
Novel White Female AIDS Positive Words	0.11476	-0.20190
Novel White Female AIDS Negative Words	0.15870	-0.21510
Novel White Male AIDS Positive Words	0.03999	-0.20337
Novel White Male AIDS Negative Words	0.05873	**-0.34688***
Learned White Female Cancer Positive Words	-0.08256	-0.20150
Learned White Female Cancer Negative Words	-0.04047	-0.14675
Learned White Male Cancer Positive Words	-0.11156	**-0.23074***
Learned White Male Cancer Negative Words	-0.06429	-0.16859
Novel White Female Cancer Positive Words	0.16658	**-0.22869***
Novel White Female Cancer Negative Words	0.14708	**-0.24379***
Novel White Male Cancer Positive Words	-0.01891	-0.16468
Novel White Male Cancer Negative Words	0.07535	**-0.33902***

$p<.05$

Table 3

Pearson Correlation Matrix among Prejudice and Religiosity Questionnaires: Fault Analysis among Black targets associated with positive/negative words (N=82)

Questionnaire	Prejudice Questionnaire	Religiosity
Black Female AIDS Fault Positive Words	0.01210	-0.21832
Black Female AIDS Fault Negative Words	-0.03748	-0.07721
Black Female AIDS No Fault Positive Words	-0.16960	-0.14421
Black Female AIDS No Fault Negative Words	-0.03970	**-0.25432***
Black Male AIDS Fault Positive Words	0.10904	-0.18593
Black Male AIDS Fault Negative Words	-0.08587	-0.17465
Black Male AIDS No Fault Positive Words	0.09480	-0.28687
Black Male AIDS No Fault Negative Words	0.01682	-0.13959
Black Female Cancer Fault Positive Words	0.01034	-0.15483
Black Female Cancer Fault Negative Words	-0.04523	-0.11516
Black Female Cancer No Fault Positive Words	0.16722	-0.19921
Black Female Cancer No Fault Negative Words	0.14091	-0.22881
Black Male Cancer Fault Positive Words	-0.09349	-0.19192
Black Male Cancer Fault Negative Words	-0.03286	-0.19663
Black Male Cancer No Fault Positive Words	-0.07730	-0.11980
Black Male Cancer No Fault Negative Words	0.13619	-0.22163

$p<.05$

Table 4

Pearson Correlation Matrix among Prejudice and Religiosity Questionnaires: Fault Analysis among White targets associated with positive/negative words (N=82)

	Prejudice Questionnaire	Religiosity Questionnaire
White Female AIDS Fault Positive Words	-0.01544	-0.16569
White Female AIDS Fault Negative Words	-0.06876	**-0.23043***
White Female AIDS No Fault Positive Words	0.11329	-0.08543
White Female AIDS No Fault Negative Words	0.03045	-0.07490
White Male AIDS Fault Positive Words	0.05882	-0.13516
White Male AIDS Fault Negative Words	0.12797	-0.13245
White Male AIDS No Fault Positive Words	0.03974	**-0.23926***
White Male AIDS No Fault Negative Words	0.05097	-0.04332
White Female Cancer Fault Positive Words	-0.04065	-0.19099
White Female Cancer Fault Negative Words	-0.04908	-0.09239
White Female Cancer No Fault Positive Words	-0.08576	-0016351
White Female Cancer No Fault Negative Words	-0.04124	-0.14844
White Male Cancer Fault Positive Words	-0.15139	-0.17644
White Male Cancer Fault Negative Words	-0.02763	-0.07330
White Male Cancer No Fault Positive Words	-0.05493	-0.2247
White Male Cancer No Fault Negative Words	-0.07705	-0.21669

$p<.05$

INFORMED CONSENT

Concerning Participation in a Research Study
For the Effects of Stigma on HIV/AIDS
Auburn University at Montgomery
Psychology Department

You are invited to participate in a study on the effects of stigma on individuals with HIV/AIDS. We hope to learn how stigma may influence how we perceive individuals. You are being asked to volunteer to be in this study because you are enrolled in an Introductory Psychology course. If you agree to take part in this study, your involvement will last no longer than 2 hours over a period of 2 days. If you agree to take part in this study, you will be asked to complete two computerized tasks as well as complete a small demographic questionnaire and two separate questionnaires. On the first day, you will be asked to complete the first computerized task and then return 48 hours later to complete the second computerized task. There are no known risks associated with this research. One extra credit point will be allotted for each day of participation. Therefore, each participant is limited to two points of extra credit. At the end of the study, an explanation will be offered to you. You should gain a greater understanding of how psychological research is conducted, and types of research conducted at AUM.

You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study. If you choose to take part, you have the right to stop at any time.

Your part in this study is anonymous. None of the information will identify you by name. All records are maintained on an encrypted jump drive or secure internet servers. Anonymity will be maintained by ensuring that there is no way to connect participant's responses with their personal information. Results will be reported as an aggregation of data and there will be no way to connect individual responses with participants in any way. Upon completion of the study the informed consent and debriefing forms will be stored in a locked file cabinet.

Your decision whether to participate will not prejudice your future relations with Auburn University at Montgomery. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty. If you decide later to withdraw from the study, you may also withdraw any information that has been collected about you. Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, Bethany Mims, by phone (334.202.2930) or via email (bmims1@aum.edu). If you have any questions about your rights as a volunteer in this research, contact Debra Tomblin, Research Compliance Manager, AUM,

by phone (334-244-3250) or via email (dtomblin@aum.edu). We will give you a copy of this consent form to take with you.

Authorization Statement

I have read each page of this paper about the study (or it was read to me). I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without penalty. I will get a copy of this consent form now and can get information on results of the study later if I wish.

YOU ARE MAKING A DECISION WHETHER TO PARTICIPATE. YOUR SIGNATURE
INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE
INFORMATION PROVIDED ABOVE.

Participant Name: _____

Date: _____

Participant Signature: _____

Time:_____

Explained/witnessed by:_____

(Researcher Signature)

Researcher's Printed Name: _____

Date: _____

Participant's Course Instructor:_____

Appendix A-1b
Informed Consent Form-(People under 19)

PARENTAL PERMISSION for participation in a research study titled: "The Effects of Stigma on HIV/AIDS"

Auburn University at Montgomery - Psychology Department

Your child has been invited to participate in a research study on memory and stigma. The study is being conducted by Bethany Mims, B.S. in the Auburn University Montgomery Department of Psychology. Your child was selected as a possible participant because he or she is enrolled in an Introductory Psychology course. Since your child is age 18 or younger we must have your permission to include him/her in the study.

If you decide to allow your child to participate in this research study, he/she will complete two computerized tasks as well as complete a small demographic questionnaire and two separate questionnaires over a period of two experimental sessions. On the first day, your child will be asked to view the first computerized task and then return 48 hours later to complete the second computerized task. Your child's total time commitment will be no more than 2 hours over a period of 2 days.

There are no known risks associated with this research. While there will be no direct benefits for your child due to taking part in this study, it is anticipated that your child will gain some educational benefit from participating in this study. At the end of the study, an explanation will be offered to your child. Thus, your child should gain a greater understanding of how psychological research is conducted, and types of research conducted at AUM. To thank your child for participating, your child will be offered extra credit for their Introduction to Psychology course.

If you (or your child) change your mind about your child's participation, your child can be withdrawn from the study at any time. Your child's participation is completely voluntary. If you choose to withdraw your child, your child's data can be withdrawn as long as it is identifiable. Your decision about whether or not to allow your child to participate or to stop participating will not jeopardize you or your child's future relations with Auburn University Montgomery or the Department of Psychology.

Your child's privacy will be protected. Your child's part in this study is anonymous. None of the information will identify your child by name. All records are maintained on an encrypted jump drive or secure internet servers. Anonymity will be maintained by ensuring that there is no way to connect participant's responses with their personal information. Data will be handled only by experimenters and no one else will be allowed to see it. Results will be reported as an aggregation of data and there will be no way to connect individual responses with participants in any way. Upon completion of the study the informed consent and debriefing forms will be stored in a locked file cabinet.

If you (or your child) have questions about this study, contact Bethany Mims at (334) 202.2930 or bmims1@aum.edu. A copy of this document will be given to you to keep.

If you have questions about your child's rights as a research participant, contact Debra Tomblin, Research Compliance Manager, AUM, (334) 244-3250 or dtomblin@aum.edu.

AUTHORIZATION STATEMENT: Having read the information provided, you must decide whether or not you wish for your child to participate in the "The Effects of Stigma on HIV/AIDS" research study. Your signature indicates your willingness to allow your child to participate. Your child's signature indicates his/her willingness to participate.

Participant → Signature: _____

Printed Name: _____

Parent → Signature: _____

Printed Name: _____

Date: _____

Demographic Questionnaire

1. Are you male or female?

2. What is your age?

3. What is your current marital status?
    a. Single (never married), Married, Separated, Divorced, Widowed

4. What is your religious affiliation?
    a. Protestant Christian, Roman Catholic, Evangelical Christian, Jewish, Muslim, Hindu, Buddhist, Other (specify)

5. What is your race?
    a. White, White non-Hispanic, African-American, Hispanic, Asian-Pacific Islander, Native American, Other (specify)

6. What state were you primarily raised in?

7. Have you ever been diagnosed with HIV/AIDS?

8. Have you ever been diagnosed with cancer?

9. What is your sexual orientation?
    a. Homosexual, Heterosexual, Bisexual, Lesbian, Other (specify)

Religiosity Questionnaire

Instructions: Read each of the following statements. Using the scale to the right, CIRCLE the response that best describes how true each statement is for you.

1. I often read books and magazines about my faith. 1 2 3 4 5
2. I make financial contributions to my religious organization. 1 2 3 4 5
3. I spend time trying to grow in understanding my faith. 1 2 3 4 5
4. Religion is especially important to me because it answers many questions about the meaning of life. 1 2 3 4 5
5. My religious beliefs lie behind my whole approach to life. 1 2 3 4 5
6. I enjoy spending time with others of my religious affiliation. 1 2 3 4 5
7. Religious beliefs influence all of my dealings in life. 1 2 3 4 5
8. It is important to me to spend periods of time in private religious thought and reflection. 1 2 3 4 5
9. I enjoy working in the activities of my religious affiliation. 1 2 3 4 5
10. I keep well informed about my local religious group and have some influence in its decisions. 1 2 3 4 5

- 1- Not at all true of me
- 2-Somewhat true of me
- 3-Moderately true to me
- 4-Mostly true of me
- 5-Totally true of me

Subtle and Blatant Questionnaire

Threat and Rejection Items (Blatant Prejudice)

1. People with HIV/AIDS have jobs that people without HIV/AIDS should have.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

2. Most individuals with HIV/AIDS who receive support from welfare could get along without it if they tried.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

3. People with HIV/AIDS and people without HIV/AIDS can never really be comfortable with each other, even if they are close friends.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

4. Most health care facilitates care too much about people with HIV/AIDS and not enough about people without HIV/AIDS.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

5. People with HIV/AIDS come from less able races and this explains why they are not as well off as people without HIV/AIDS.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

6. How different or similar do you think people with HIV/AIDS are to yourself-in how honest they are?

   Very different, Slightly Different, Different, Similar, Slightly Similar, Very Similar

Intimacy Items (Blatant Prejudice)

1. Suppose a child of yours had children with an HIV/AIDS positive individual, do you think you would be bothered if your grandchildren were born with HIV/AIDS?

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

2. I would be willing to have a sexual relationship with an individual with HIV/AIDS.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

3. I would not mind if a suitably qualified individual with HIV/AIDS was appointed as my boss.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

4. I would not mind if an individual with HIV/AIDS joined my family by marriage.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

Traditional Values Items (Subtle Prejudice)

1. People with HIV/AIDS should not push themselves where they are not wanted.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

2. Many individuals have overcome prejudice and worked their way up people with HIV/AIDS should do the same without any special favor.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

3. It is just a matter of some people not trying hard enough. If people with HIV/AIDS would only try harder they could do as well as people without HIV/AIDS.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

4. People with HIV/AIDS teacher their children values and skills differently than people without HIV/AIDS.

   Strongly Disagree, Slightly Disagree, Disagree, Agree, Slightly Agree, Strongly Agree

Cultural Differences Items (Subtle Prejudice)

1. How different or similar do you think people with HIV/AIDS are to people like yourself?
   a. In the values that they teach their children.
      Very different, Slightly Different, Different, Similar, Slightly Similar, Very Similar

   b. In their religious beliefs or practices?
      Very different, Slightly Different, Different, Similar, Slightly Similar, Very Similar

   c. In their sexual values or sexual practices.
      Very different, Slightly Different, Different, Similar, Slightly Similar, Very Similar

d. In the type of language they use.
Very different, Slightly Different, Different, Similar, Slightly Similar, Very Similar

Positive Emotions Items (Subtle Prejudice)

1. Have you ever felt the following ways about individuals with HIV/AIDS and their families?
    a. How often have you felt sympathy for someone with HIV/AIDS?
    Very often, Fairly Often, Not Too Often, Never
    b. How often have you felt admiration for someone with HIV/AIDS?
    Very often, Fairly Often, Not Too Often, Never

Debriefing form: The Effects of Stigma on HIV/AIDS

First of all, the names and diseases that you have learned for the photographed individuals are not necessarily true. **We have NO KNOWLEDGE as to their true names and disease status**. Diseases were randomly assigned to each individual photograph.

Within this experiment, we were testing the effects of stigma towards individuals with HIV/AIDS. You were asked to come in two separate times over a period of two days in order to test this effect. When you sleep, your brain will switch the short-term memory into a long-term memory store. So, over the 48 hour break, we gave your brain time to switch the information you had learned about the target individuals to a long-term memory store. We have found in previous research that memory consolidation slows social categorization. Therefore, when people learn some individuating or unique information about an individual and this information is given time to consolidate people are slower to categorize that individual solely as an HIV positive individual because they've become familiar with them. We know that attitudes towards certain topics can, at times, influence these results. Therefore, we have also given you the subtle and blatant prejudice questionnaire to control for this. Your participation in the current research will help us learn more about the influence of expressed stigma based on an individual's HIV/AIDS status. In addition, your participation will help us better understand this important social phenomenon.

It is important to remember that your data is kept completely anonymous and there will be no way for us to associate your responses with you individually. It is a part of an aggregation of data. Nonetheless, if you prefer that your data be excluded from the experiment, please notify the researcher right now.

If, at a later time, you would like more information about the topics covered in this research, or an opportunity to talk about the feelings and thoughts brought up by participating in this research, you may contact Bethany Mims (bmims1@aum.edu or 334.202.2930).

Do you have any questions for me now? If so, please ask! If you would like a paper copy of this form please ask the experimenter now.

Since the true purpose of this study was masked for experimental purposes, it is your right to have your own data excluded from the analysis. If that is the case, you may notify the experimenter. **Please do not share any information about this experiment with anyone else as this would drastically hurt our results!**