

Assessing Attitude Revision in an Online Sample

By

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A Thesis
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of
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ABSTRACT

ASSESSING ATTITUDE REVISION IN AN ONLINE SAMPLE

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Western Carolina University (July 2011)

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Previous research on attitudes toward homosexuals utilized vignettes presented in a holistic fashion to participants (Batson, Floyd, Meyer, & Winner, 1999; Bassett et al., 2002; Mak & Tsang, 2008). In these vignettes, participants learned of a person's sexual orientation and their sexual behavior. The present study implemented a methodological change which allows for a clearer understanding of a person's attitudes toward a homosexual person and toward homosexuality. The vignettes that were administered holistically in previous studies were separated into two critical pieces – one detailing the sexual orientation of the target and the other detailing the sexual behavior of the target. The present study extended the findings of previous research by addressing three novel questions. First, what are people's attitudes toward a person who revealed that they are either homosexual or heterosexual and are those attitudes affected by later learning that the person is promiscuous or celibate? Second, whether the content of a person's religious beliefs affect these attitudes? Third, if people do revise their initial attitudes toward a homosexual person after learning that they are celibate? The data support the first hypothesis – participants did revise their attitudes after learning the target's sexual behavior. The results also support the second hypothesis. Christian Orthodoxy did accentuate the effects of attitude revision. The third hypothesis was supported by the data – devout Christians liked a celibate person more than a promiscuous person regardless of the person's sexual orientation.

CHAPTER 1: INTRODUCTION

I believe sexuality is a gift from God to be expressed exclusively within the commitment of heterosexual marriage and that all other expressions of that are outside the boundaries of God's creative intent as revealed in the Scripture. However, I do not believe that gives you a license to hate people, including homosexuals, and I think part of the struggle for people is that it's easy, it's easy to beat up what you don't understand. I have sat and listened to story after story after story from gay people of their journey and have cried with them and tried to listen to the awful pain they go through. [It] hasn't changed what I believe about the *practice of homosexuality*, but it has reminded me that 'Whom you would change you must first love.' Martin Luther King, Jr. said that.

Ed Dobson, former Vice President of Moral Majority, Inc.

As this quote suggests, devout Christians may experience conflict between their attitudes toward homosexual people and their attitudes toward homosexuality. Indeed, most Christian denominations teach followers to “love the sinner, but hate the sin,” to have compassion for homosexual people without approving of homosexual behavior. Is this possible? Can Christians truly distinguish their attitudes toward a homosexual person from their attitudes toward homosexual behavior?

Some studies suggest that the answer to this question is “no”—that Christians discriminate on the basis of sexual orientation regardless of a person’s behavior (e.g., Batson, Floyd, Meyer & Winner, 1999). Batson et al. (1999), for instance, found that even devout, intrinsically religious individuals – those who desire to *live* their religion (Allport & Ross, 1967) –express prejudice against homosexual persons on the basis of sexual orientation – independent of whether their behavior violates religious values. Batson et al. gave participants of varying degrees of Intrinsic Orientation – based on Allport and Ross’s (1967) scale - the opportunity to earn raffle tickets to win a \$30.00

gift certificate for a same-sex peer. For one-third of the participants, the sexual orientation of the peer was unknown and the peer was going to use the money to visit their grandparents. For a second group of participants, the peer was known to be gay and was planning to use the money to attend a gay pride rally. For the final group, the peer was known to be gay and was planning to use the money to visit their grandparents. Batson et al. found that participants high in Intrinsic Orientation (and thus presumably more devout) were less likely to help either of the gay peers than the presumed non-gay peer. There were no significant differences in willingness to help the three peers among participants who scored low in Intrinsic Orientation. Batson et al. concluded that “devout, intrinsic religion appeared to be associated with tribal rather than universal compassion; there seemed to be antipathy toward the homosexual person, not just toward promoting homosexuality” (p. 10).

Other self-report studies provide evidence to the contrary, showing that Christians do indeed separate their attitudes toward homosexual people from attitudes toward homosexuality (Bassett et al., 2002; Fuller, Gorsuch, & Maynard, 1999). Bassett et al. contended that Batson et al. (1999) did not fully “un-confound” homosexual orientation from homosexual behavior. Bassett et al. (2002) suggested that describing only a person’s homosexual orientation was not sufficient to communicate that the person refrained from engaging in homosexual behavior. Bassett argued that, in the Batson et al. study, the homosexual target person who intended to visit his or her grandparents could have been sexually active and thus indirectly “promoted” homosexuality. Accordingly, Bassett manipulated both the sexual orientation of the target person (homosexual or heterosexual) and the degree to which the target engaged in sexual behavior

(promiscuous or celibate). Bassett et al. (2002) utilized a study design and procedures similar to those of Batson et al. (1999). In both studies, participants were asked to help a discloser increase the probability that the discloser would win money to use for reasons which varied according to the condition (e.g. visit grandparents or attend a gay pride rally). Bassett et al. (2002) found that when participants were told that a person was either sexually promiscuous or celibate, the participant's level of financial help differed – participants were less likely to help a promiscuous person and more likely to help a celibate person regardless of the person's sexual orientation.

Mak and Tsang (2008) extended the findings by Batson et al. (1999) and Bassett et al. (2002) by exploring the effects of sexual orientation (homosexual, heterosexual) and sexual behavior (promiscuous, celibate) of a target person on a participant's willingness to help them. Participants were invited to complete a task, which would benefit one of two students not involved in the completion of the task – the discloser who was either homosexual or heterosexual and celibate or promiscuous – or another student who was anonymous and who disclosed no information about their sexual orientation or behavior. Before working on the task, the participant was handed a note enclosed in a sealed envelope. The note consisted of a vignette indicating the target person's sexual orientation and their sexual behavior. After reading the note, the participants were told that they would complete a task in which each correct response would earn the discloser or the anonymous student a ticket for a \$50 raffle. The participant could choose to either help the discloser or the anonymous student earn tickets via correct responses on a number-search task. Before completing the task, the participants were given a second

note in which the discloser told the participant that they would use the \$50 to visit their grandparents for their 50th wedding anniversary.

The second note was designed to express a need that could be met with help from the participant. Participants high in intrinsic religious orientation helped a celibate discloser more than a promiscuous discloser regardless of orientation. Conversely, those low in intrinsic religious orientation helped homosexual and heterosexual people about equally regardless of their sexual behavior (promiscuous or celibate). These findings indicate an ability by people high in intrinsic religious orientation to differentiate between out-group membership and value-violating behaviors—to separate their attitudes toward homosexual people from attitudes toward promiscuous homosexual behavior (Mak & Tsang, 2008).

The present study aims to extend these findings in three ways. First, I *directly* assessed people's attitudes toward a homosexual or heterosexual person who was either promiscuous or celibate. Second, I addressed whether people revise their initial attitudes toward a homosexual person after learning that they are celibate or promiscuous. Third, I investigated whether any tendency to change one's attitude toward a homosexual person to account for their sexual behavior (promiscuous or celibate) is accentuated among people who more strongly endorse the central tenets of Christianity.

Christian Orthodoxy and Attitudes Toward Homosexuals

Because Christian Orthodoxy represents the degree to which people endorse the central tenets of Christianity, participants high in Christian Orthodoxy are expected to have more positive attitudes toward homosexual people (Ford, et al., 2009). Ford et al. (2009) showed that participants high in Christian Orthodoxy were able to distinguish

their attitudes toward a homosexual person from their attitudes toward homosexuality. Participants who are high in Christian Orthodoxy may internalize their beliefs to a greater extent than those who are low in Christian Orthodoxy. Furthermore, participants who are high in Christian Orthodoxy are more likely to be involved in Christian organizations. Being active in Christian organizations may be crucial in forming attitudes toward the targets presented in this study (Strassburger, Ford, & Johnson, 2011). People active in Christian organizations indicate more positive attitudes toward homosexual people than do people not active in Christian organizations (Strassburger, et al., 2011). Similarly, people who are active in Christian organizations more significantly disapprove of homosexuality than do people who are not active in Christian organizations (Strassburger, et al., 2011).

Initial Attitudes toward Homosexuals Based Only on Sexual Orientation

Several researchers found that homosexual people are believed to be promiscuous (e.g. Levitt & Klassen, 1974; Brown & Groscup, 2009). Prior to conducting the experiment, I tested the assumption that a homosexual person is sexually promiscuous. Thirty participants (8 males, 22 females) from an undergraduate social psychology class read the following vignette describing a homosexual person:

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to Western Carolina University, one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well. To be really honest, I had a special reason for being worried. The reason is I'm gay.

The heterosexual condition was constructed using the same vignette after removing the last sentence (“The reason is I’m gay.”). After reading the vignette, the participants answered the following questions: (1) “To what extent does the person in the story violate traditional Judeo/Christian values?”, and (2) “To what extent do you think the person depicted in this story is likely to be sexually active?” Responses were made on a seven-point rating scale (e.g. 1 = dislike extremely, 7 = like extremely). Consistent with previous research (Ford, et al., 2009), participants expected the homosexual target to violate Judeo/Christian values to a greater extent ($M = 4.53$, $SD = 2.0$) than the heterosexual target ($M = 2.44$, $SD = 1.75$) $F(1, 29) = 9.7$, $p = .004$. Participants indicated that the homosexual target is more likely to be sexually active ($M = 4.6$, $SD = 1.12$) than the heterosexual target ($M = 2.81$, $SD = 1.28$) $F(1, 29) = 17.07$, $p < .001$. These findings indicate that when learning only about a person’s sexual orientation, people readily assume that a homosexual person violates Judeo/Christian values by being sexually active.

Attitudinal Change/Revision

The degree to which participants were able to revise their impressions of a person led to the phenomenon of insufficient adjustment and anchoring. Researchers such as Tversky & Kahneman (1974) have shown that the initial information presented to people serves as a central reference by which a person is judged. However, with the presentation of new information people are often able to revise their initial impressions but they do so conservatively (Jones, 1990). Even though people alter their initial impressions after learning new information, they do not completely disregard their initial impression. This

is important to the present study because participants' attitudes are compared after learning about a target person's sexual orientation and after they learn about the target person's sexual behavior.

Present Study: Overview and Hypotheses

The present study assessed a person's ability to revise their attitudes of a homosexual or heterosexual person after learning that the person is promiscuous or celibate. Based on previous research, I first hypothesized that participants would positively revise their attitudes after learning the target person is celibate regardless of the target's sexual orientation. Conversely, I predicted that participants would negatively revise their attitudes toward the target person after learning the target person is promiscuous regardless of the target's sexual orientation. Second, I hypothesized that these attitude changes would be accentuated among those high in Christian Orthodoxy.

To test the hypothesis that participants will revise their attitudes after learning about the person's sexual behavior, I separated a vignette into two phases. The first phase indicated the target person's behavior and the second phase indicated their sexual orientation. I also measured the participant's level of Christian Orthodoxy so that the relationships predicted could be tested.

CHAPTER 2: METHOD

Participants and Design.

Sixty-six (32 male, 33 female, and 1 person did not indicate their gender) took part in this study in exchange for \$0.15 via Amazon's Mechanical Turk. Amazon's Mechanical Turk has been shown to produce demographically diverse participants and that the data

obtained is at least as reliable as data collected via traditional means (Buhrmeister, Kwang, & Gosling, 2011). Participants ranged in age from 18 to 70 with a mean age of 30.5. Seven of these participants (10.6%) were Protestant, 12 (18.2%) were Catholic, 2 (3.0%) were Jewish, and 8 (12.1%) were Muslim. Eighteen participants (27.3%) indicated no religious affiliation and 19 (28.8%) indicated pursuing “other” religions. Of the 19 participants who indicated “other” as their religious affiliation, 14 (73.7%) were Hindu.

Ten countries were represented in this study. Forty-four (66.7%) of the participants were from India, 15 (22.7%) were from The United States of America, and 1 (1.5%) were from Canada. Each of the remaining participants (6) was the sole representative of their country and accounted for 1.5% of the total. Participants were randomly assigned to one of four conditions in a mixed-model design with the target's sexual orientation (homosexual, heterosexual) and sexual behavior (celibate, promiscuous) serving between subjects factors and disclosure (sexual orientation only, sexual orientation plus sexual behavior) serving as a within-subjects factor.

Procedure

Participants were asked to complete the study via a computer-aided interface called Qualtrics. Qualtrics provided the ability to easily design and deliver the study to the participants. Additionally, Qualtrics, was equipped to record and store the collected data for retrieval and analysis.

Upon agreeing to the consent form, participants completed Part 1 of the study. Participants were given the following instructions: First, they were told to read each question that followed carefully and to answer each question honestly. Participants then

completed Hunsberger's (1989) Christian Orthodoxy scale (CO). The CO consists of six items that assess endorsement of central tenets of orthodox Christianity (e.g., "Through the life, death, and resurrection of Jesus, God provided a way for the forgiveness of humanity's sins"). Participants responded to each item using a scale ranging from -4 (strongly disagree) to +4 (strongly agree). Hunsberger (1989) found Chronbach's Alphas ranging from .93 to .98.

Part 2 of the study was presented as an allegedly unrelated study and consisted of a vignette. Participants were asked to read each body of text carefully and to respond honestly to the questions that followed. Each participant was randomly assigned to a condition which produced a vignette depicting a person who was either homosexual or heterosexual and promiscuous or celibate. The vignette was adapted from its full version (Mak & Tsang, 2008) into sections and was presented sequentially. The original vignette, which was presented holistically read as follows:

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to [University Name], one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well. To be really honest, I had a special reason for being worried. **The reason is I'm gay.** Last year I couldn't have told anyone that, but now I can. I wasn't sure how accepted my sexual orientation would be among [University] students. I didn't make any friends at first and I was afraid that I would not find love either, I didn't know what to expect of the dating situation when I first got

here. **I am looking for someone who can understand me, and doesn't mind that I don't want to stay tied down right now.** I still think it is important to have an emotional and spiritual relationship with another person, but college is a place for experimenting and for me **experimenting is sleeping around with lots of people.** I was pretty lonely when I first got here, maybe because I was so scared. After a couple of weeks though, I started feeling a bit more at ease. Now I really like it here. I've met a lot of cool people and have some really great friends.

-Bold-type font used for emphasis of critical components.

The vignette presented above was used to describe the homosexual promiscuous condition of the Mak and Tsang (2008) study. Qualtrics was an integral component because it allowed for the execution of the methodological changes unique to this study. The main difference between this study and the original study performed by Mak and Tsang (2008) is that I presented the vignette in a sequential, pieced manner (Phase 1 and Phase 2). This allowed the participants to indicate their attitude toward the person in the vignette at different points of learning about them. An example of the vignettes for each condition and how each phase was presented follows. (1) heterosexual and celibate:

Phase 1

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to [University Name], one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well.

Phase 2

I didn't make any friends at first and I was afraid that I would not find love either, I didn't know what to expect of the dating situation when I first got here. **I am looking for someone who can understand me, and doesn't mind that I choose to remain celibate.** Even though I have decided to not have sex, I still think it is important to have an emotional and spiritual relationship with another person. I was pretty lonely when I first got here, maybe because I was so scared. After a couple of weeks though, I started feeling a bit more at ease. Now I really like it here. I've met a lot of cool people and have some really great friends.

-Bold-type font used for emphasis of critical components.

(2) heterosexual and promiscuous:

Phase 1

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to [University Name], one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well.

Phase 2

I am looking for someone who can understand me, and doesn't mind that I don't want to stay tied down right now. I still think it is important to have an emotional and spiritual relationship with another person, but college is a place for experimenting and for me **experimenting is sleeping around with lots of people.** I was pretty lonely when I first got here, maybe because I was so scared. After a

couple of weeks though, I started feeling a bit more at ease. Now I really like it here. I've met a lot of cool people and have some really great friends.

-Bold-type font used for emphasis of critical components.

(3) homosexual and celibate:

Phase 1

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to [University], one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well. To be really honest, I had a special reason for being worried. **The reason is I'm gay.** Last year I couldn't have told anyone that, but now I can. I wasn't sure how accepted my sexual orientation would be among [University] students.

-Bold-type font used for emphasis of critical components.

Phase 2

I didn't make any friends at first and I was afraid that I would not find love either, I didn't know what to expect of the dating situation when I first got here. **I am looking for someone who can understand me, and doesn't mind that I choose to remain celibate.** Even though I have decided to not have sex, I still think it is important to have an emotional and spiritual relationship with another person. I was pretty lonely when I first got here, maybe because I was so scared.

After a couple of weeks though, I started feeling a bit more at ease. Now I really like it here. I've met a lot of cool people and have some really great friends.

-Bold-type font used for emphasis of critical components.

and (4) homosexual and promiscuous:

Phase 1

I'm supposed to tell you something really personal and revealing, something I wouldn't tell somebody else unless I knew them really well. I guess writing a note is better than face-to-face. Even though I was excited about coming to [University], one thing that worried me was that it seemed so huge. I was really afraid I would just get lost in the crowd and wouldn't be able to get to know anyone well. To be really honest, I had a special reason for being worried. **The reason is I'm gay.** Last year I couldn't have told anyone that, but now I can. I wasn't sure how accepted my sexual orientation would be among [University] students.

-Bold-type font used for emphasis of critical components.

Phase 2

I am looking for someone who can understand me, and doesn't mind that I don't want to stay tied down right now. I still think it is important to have an emotional and spiritual relationship with another person, but college is a place for experimenting and for me **experimenting is sleeping around with lots of people.** I was pretty lonely when I first got here, maybe because I was so scared. After a couple of weeks though, I started feeling a bit more at ease. Now I really like it here. I've met a lot of cool people and have some really great friends.

-Bold-type font used for emphasis of critical components.

After each segment of the vignette was presented to the participant, they were asked to indicate their attitude of the person presented in the vignette. Specifically, participants responded to the following questions: (1) How much respect do you have for this person? (2) How much do you like this person? (3) How much disgust do you feel toward this person? and (4) What is your overall attitude of this person? Participants gave their responses to each question using a seven-point rating scale ranging from 1 (not at all) to 7 (very much). These 4 questions were averaged to compute an aggregate measure of “liking.” Chronbach's alpha for the aggregate measure .78 for phase 1, .90 for phase 2 and .80 collapsed across phase 1 and phase 2.

CHAPTER 3: RESULTS

Hypothesis 1: Attitude Revision

I first hypothesized that participants would positively revise their initial attitudes of a target person after learning that they were celibate regardless of sexual orientation.

Conversely, I predicted that participants would negatively revise their initial attitudes of a target person after learning that they were promiscuous regardless of sexual orientation.

A measure of attitude revision was computed by subtracting the aggregate liking rating for the target at phase 2 (disclosure of sexual orientation and sexual behavior) from the aggregate liking rating for the target at phase 1 (disclosure of sexual orientation only). The mean attitude ratings at phase 1 and phase 2 and the attitude change index for the target person as a function of sexual orientation (homosexual or heterosexual) and behavior (celibate or promiscuous) are displayed in Table 1.

Table 1. Mean Attitudes After Phase 1 and Phase 2 with Revision Index.

		Celibate			Promiscuous		
		Phase 1	Phase 2	Revision	Phase 1	Phase 2	Revision
Heterosexual	M	4.76	4.94	+.18	4.75	4.00	-.75
	SD	.76	.95	.74	.89	1.62	1.63
Homosexual	M	4.37	5.04	+.68	4.78	4.03	-.75
	SD	.75	.79	.92	1.03	.81	1.03
Total	M	4.57	4.99	+.42	4.77	4.02	-.75
	SD	.77	.86	.86	.94	1.27	1.43

To test this prediction, I conducted a regression analysis on the aggregate attitude revision measure using the General Linear Model procedure in PASW Statistics 18. The target's sexual orientation (homosexual, heterosexual) and the target's behavior (promiscuous, celibate) and phase (sexual orientation only, sexual orientation plus behavior) served as between-subjects factors. The predicted main effect of behavior was significant, $F(1, 62) = 16.77, p < .01$. Furthermore, planned comparisons revealed that participants reported liking the celibate target more after phase 2 ($M = 4.99, SD = .86$) than after phase 1 ($M = 4.57, SD = .77$), $t(34) = -2.91, p < .01$. Also in keeping with my hypothesis, participants reported liking the promiscuous target less after phase 2 ($M = 4.02, SD = 1.27$) than after phase 1 ($M = 4.77, SD = .94$), $t(30) = 2.92, p < .01$.

Hypothesis 2: The Moderating Role of Christian Orthodoxy

The results support my first hypothesis. Participants positively revised their attitude toward a target person after learning they were celibate regardless of whether the target person was heterosexual or homosexual, and negatively revised their attitude toward a target person after learning they were promiscuous regardless of sexual orientation. My second hypothesis was that these attitude changes would be accentuated among people high in Christian Orthodoxy.

To test this hypothesis, I conducted a regression analysis on the aggregate attitude revision measure using the General Linear Model procedure in PASW Statistics 18. The target's sexual orientation (homosexual, heterosexual) and the target's behavior (promiscuous, celibate) served as manipulated between-subjects factors and scores on the CO served as a continuous individual difference variable. The predicted behavior x CO interaction effect nearly reached the conventional level of significance, $F(1, 58) = 3.64, p$

= .06. CO was positively (albeit not significantly) related to liking for the celibate target person at phase 1, $r = .32, p = .07$. At phase 2, upon learning that the target person was celibate, CO was significantly related to liking, $r = .34, p < .05$. Also in keeping with my hypothesis, CO was not related to liking for the promiscuous target person at phase 1, $r = -.10, ns$. However, in phase 2 upon learning that the target person was promiscuous, CO was significantly related to liking, $r = -.44, p = .01$.

CHAPTER 4: DISCUSSION

The present study contributes to a body of research investigating whether people can separate their attitudes toward homosexuals from their attitudes toward homosexual behavior. The study extends previous research in important ways. First, it directly measured people's attitudes toward a homosexual or heterosexual person who was either promiscuous or celibate. Second, it tested two novel hypotheses. First, I hypothesized that people positively revise their attitude toward another person after learning that he or she is celibate regardless of the person's sexual orientation. Conversely, they negatively revise their attitude toward another person after learning that he or she is promiscuous regardless of the person's sexual orientation. Second, I hypothesized that these attitude changes are accentuated among those high in Christian Orthodoxy.

Results of the study provide strong support for the first hypothesis. Participants reported liking both a homosexual and a heterosexual target person better after learning they were celibate than after learning only of their sexual orientation. Furthermore, participants reported less liking for both a homosexual and a heterosexual target person after learning that they were promiscuous than after learning only of their sexual orientation. It is a reasonable explanation to suggest that participants view a promiscuous person negatively compared to a celibate person. Thus, it appears that sexual behavior and not sexual orientation influences participants' attitudes toward a homosexual person. People appear to be able to separate their attitudes toward homosexual people from their attitudes toward homosexual behavior.

The results also support the second hypothesis. Christian Orthodoxy did accentuate the effects of attitude revision. In the celibate target condition, attitudes toward the target person at phase 2 (when the target disclosed their sexual orientation and their celibacy)

were positively related to scores on the CO. The more people endorsed the central tenets of Christianity, the more they liked the celibate target person, regardless of the target person's sexual orientation. In the promiscuous target condition, attitudes toward the target person at phase 2 were negatively related to scores on the CO. The more people endorsed the central tenets of Christianity, they less the liked the promiscuous target person, regardless of the target person's sexual orientation.

These findings are consistent with the quote from Ed Dobson suggesting that devout Christians do indeed distinguish between a person and their behaviors – in effect, they separate the “sinner from the sin.” Support for this hypothesis also bolsters previous conclusions that people favor a person who is celibate rather than one who is promiscuous no matter their orientation (Mak & Tsang, 2008).

When Attitudes Are Changed, What Happens to the Original Attitudes?

Two models of attitudinal change – Dual Attitude Model (Wilson, Lindsey, & Schooler, 2000) and the Past Attitudes Still There (PAST) Model (Petty, Tormala, Briñol, & Jarvis, 2006), posit theories related to what happens when two or more attitudes are held for the same object. For each model, the original attitude is not “replaced” by a new attitude – that is, the first attitude is not completely discarded. In the Dual Attitude Model, people may possess two attitudes toward an object, which differ in how they are expressed – at the conscious or the implicit levels (Fabrigar & Wegener, 2010). When new information is introduced, it is believed that both attitudes are retained for reference but that only the attitude that is stored at the conscious level is accessed. Similarly, in the PAST model, old attitudes are not removed when new information is learned, rather they are deemed “invalid” and are no longer used (Fabrigar & Wegener, 2010). The PAST

model suggests that both attitudes continue to be associated with the attitude object but that a person will only utilize the one that is considered valid.

Participants in the present study may initially access a negative attitude when they first learn about a homosexual person, but then that attitude may be revised when they learn that the person is celibate. The Dual Attitudes Model and the PAST model suggest possible explanations for what happens to an original attitude once it is revised. The original attitude may be accessed and used a reference point by which the new attitude is formed. Because it is uncertain what happens to revised attitudes toward homosexual people, it may be an interesting avenue of research to explore the ways in which the original attitude is accessed. Are there certain situations, for example, that the original attitude returns to the default position regardless of newly learned information? Or, are there situations in which the revision of attitudes may be more extreme than the relationship between homosexual or heterosexual and celibate or promiscuous as discovered in this study?

Limitations of Present Study

I anticipated that religiosity, specifically Christian Orthodoxy (CO), would moderate the revision effects exhibited by the participants. I believe that the overwhelming presence of non-Judeo-Christian religions in this study significantly reduced the utility of the Christian Orthodoxy scale. The CO scale is designed to specifically measure the degree to which people adhere to the central tenets of Christianity. Expecting over half the participants (N = 45; 68.2%) who follow a non-Judeo-Christian religion (or no religion at all) to embody the characteristics measured by the CO scale was inappropriate. That being said, a more appropriate measure for non-Christians may be the Intrinsic

Orientation scale which measures how a person *uses* their religion and not the degree to which they align with a specific religion showed to be a better moderator of the revision effect.

Christian Orthodoxy is a more appropriate measure of the *content* of a person's belief system if that person pursues a Christian faith. The tenets of Christian Orthodoxy can be likened to a moral standard of conduct which serves as a reference point for those high in Orthodoxy. People who are high in Christian Orthodoxy should have these guiding tenets more readily accessible, and therefore, easily applied to the ways in which they view people they encounter. More data will be collected so that a roughly equal number of followers of Judeo-Christian religions are represented to test this new hypothesis. If supported, intrinsic orientation will remain a moderator of the revision of a person's attitude, but Christian Orthodoxy will be a stronger moderator of this effect for people who identify as Christians.

Future Directions

The present study assessed attitudes toward homosexual people and their behavior. The behaviors tested were extremes – sexually celibate or sexually promiscuous. It would be appropriate to include a midpoint of behavior. In addition to assessing attitudes toward a person who is either homosexual or heterosexual and promiscuous or celibate, a person who is sexually active, but in a monogamous, committed relationship should be assessed, also. Only assessing the extremes in behavior (promiscuous or celibate) does not allow for a distinction between sexually active and sexually promiscuous. It is not possible to determine whether it is being sexually promiscuous outside the binds of a committed relationship or being sexually active within a committed relationship that is

the greatest threat to people's attitudes. The introduction of a midpoint behavior would allow for a clearer understanding of the attitudes being assessed. It should be clearer, then, if a person dislikes someone who is sexually active outside a monogamous relationship and thus, dislikes sexual promiscuity and not necessarily, sexual activity in a committed relationship.

Little research, has addressed the effects of priming Christian Orthodoxy or religiosity. Manipulating Christian Orthodoxy as a variable rather than treating it as an individual difference variable could allow a new perspective associated with the effects of Christian Orthodoxy. It would be expected that a control group would rate target objects similarly to the participants in the present study. With the introduction of a manipulated variable such as Christian Orthodoxy, I would anticipate a stronger, more salient relationship between learning a person's sexual orientation and then their behavior.

Conclusion

Participants showed an ability to revise their attitudes after learning a person's sexual behavior. In general, participants liked a celibate target more regardless of the target's sexual orientation. Participants liked a promiscuous target less regardless of the target's sexual orientation. Christian Orthodoxy did not sufficiently moderate the revision effects. Future research is warranted to more appropriately assess whether religiosity is a moderating effect on a person's ability to revise their attitudes.

References

- Bassett, R., Baldwin, D., Tammaro, J., Mackmer, D., Mundig, C., Wareing, A., & Tschorke, D. (2002). Reconsidering intrinsic religion as a source of universal compassion. *Journal of Psychology and Theology*, 30(2), 131-143.
- Batson, C. D., Floyd, R. B., Meyer, J. M., & Winner, A. L. (1999). "And who is my neighbor?": Intrinsic religion as a source of universal compassion. *Journal for the Scientific Study of Religion*, 38(4), 445. doi:[10.2307/1387605](https://doi.org/10.2307/1387605)
- Brown, M. J., & Groscup, J. (2009). Homophobia and acceptance of stereotypes about gays and lesbians. *Individual Differences Research*, 7(3), 159-167.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science*, 6(1), 3-5. doi:10.1177/1745691610393980
- Fabrigar, L. R., & Wegener, D. T. (2010). Attitude structure. In R. F. Baumeister & E. J. Finkel (Eds.) *Advanced social psychology: The state of the science* (pp. 177-216). New York, NY: Oxford University Press.
- Ford, T. E., Brignall, T., VanValey, T. L., & Macaluso, M. J. (2009). The unmaking of prejudice: How Christian beliefs relate to attitudes toward homosexuals. *Journal for the Scientific Study of Religion*, 48(1), 146-160. doi: 10.1111/j.1468-5906.2009.01434.x.
- Hunsberger, B. (1989). A short version of the Christian orthodoxy scale. *Journal for the Scientific Study of Religion*, 28(3), 360. doi:[10.2307/1386747](https://doi.org/10.2307/1386747)
- Jones, E. (1990). *Interpersonal perception*. New York: W.H. Freeman.
- Levitt, E., & Klassen, A. D., Jr. (1974). Public attitudes towards homosexuals. Part of the 1970 national survey by the Institute for Sex Research. *Journal of Homosexuality*, 1(1), 29-47.
- Mak, H. K., & Tsang, J. (2008). Separating the "sinner" from the "sin": Religious orientation and prejudiced behavior toward sexual orientation and promiscuous sex. *Journal for the Scientific Study of Religion*, 47(3), 379-392.

- Petty, R. E., Tormala, Z. L., Briñol, P., & Jarvis, W.B.G. (2006). Implicit ambivalence from attitude change: An exploration of the PAST Model. *Journal of Personality and Social Psychology*, 90, 21-41.
- Strassburger, D. C., Ford, T. E., Johnson, A. (2011, March). *Christian organization members and their attitudes toward homosexuals and homosexuality*. Poster presented at the Fifty-Seventh Southeastern Psychological Association Conference, Jacksonville, FL.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131. doi:[10.1126/science.185.4157.1124](https://doi.org/10.1126/science.185.4157.1124)
- Wilson, T. D., Lindsey, S., & Schooler, T. (2000). A model of dual attitudes. *Psychological Review*, 107, 101-126.

Appendix A

Christian Orthodoxy Scale

This survey includes a number of statements related to specific religious beliefs. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please mark your opinion by selecting the corresponding option, according to the amount of your agreement or disagreement, by using the following scale:

-3 If you *strongly disagree* with the statement

-2 If you *moderately disagree* with the statement

-1 If you *slightly disagree* with the statement

+1 If you *slightly agree* with the statement

+2 if you *moderately agree* with the statement

+3 if you *strongly agree* with the statement

If you feel exactly and precisely *neutral* about an item, select the "0" for your response

1. Jesus Christ was the divine Son of God
2. The Bible may be an important book of moral teaching, but it was no more inspired by God than were many other such books in human history
3. The concept of God is an old superstition that is no longer needed to explain things in the modern era
4. Through the life, death, and resurrection of Jesus, God provided a way for the forgiveness of people's sins
5. Despite what many people believe, there is no such thing as a God who is aware of our actions
6. Jesus was crucified, died, and was buried but on the third day He arose from the dead