RELIGIOSITY AND SPIRITUALITY: GENDER ESSENTIALISM

AS A MEDIATOR FOR TRANSNEGATIVE

ATTITUDES

by

Stephen Lee Bussey

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ABSTRACT

In recent years there has been increasing interest of issues regarding transgender individuals and transgender rights. The transgender community has often been faced with misunderstanding and individuals within it have been victims of prejudice. The current research seeks to examine attitudes towards transgender individuals in the context of religion and gender essentialism. Specifically, it seeks to discover what types of religiosity and spirituality are most related to transnegativity, and whether gender essentialism partially mediates this relationship. To investigate this, survey data was collected from undergraduate students ($n = 166$) measuring multidimensional spirituality, gender essentialism, and attitudes towards transgender individuals, and the data was analyzed using four mediation models. Results indicated that multidimensional spirituality was significantly predictive of transnegative attitudes, with gender essentialism mediating this relationship. These findings have important implications for understanding spirituality, gender essentialism, and prejudice. Most importantly, these findings indicate areas where prejudice could be mitigated.

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Approved:

_____ _____
Chairman, Thesis Committee   Date

_____ _____
Member, Thesis Committee   Date

_____ _____
Member, Thesis Committee   Date

_____ _____
Member, Thesis Committee   Date

_____ _____
Department Head   Date

_____ _____
Dean, College   Date

_____ _____
Dean, Graduate School   Date

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CHAPTER I

INTRODUCTION

Discussion of transgender issues has been around for decades, but the topic has been getting increasing attention in recent years. The American Psychiatric Association (2013) revised Gender Identity Disorder (GID) in the fourth edition of their Diagnostic and Statistical Manual of Mental Disorders (DSM) to Gender Dysphoria in the fifth edition. This was done to emphasize that being transgender is not a disorder; rather, the persistent negative feelings which can come from living in a manner incongruent from one's internally experienced gender identity are the issues to be addressed. Following the APA's decision, gay, lesbian, bisexual, and transgender rights have garnered much more attention, often in highly charged contexts. From the legalization of gay marriage in 2015 to bakers refusing to sell wedding cakes to gay couples, LGBTQ+ issues have created shock-waves in public discourse. At the same time, topics relating to being transgender have received increased media coverage, both positive and negative. For example, the 2015 film *The Danish Girl* provided a highly sympathetic rendering of a story based loosely on the life of Lili Elbe, one of the earliest recipients of gender affirmation surgery, and her wife Gerda Wegener (Hooper, 2015). Popular series such as *Pose* and *Queer Eye* have humanized gender non-conforming individuals and helped to dispel harmful beliefs and assumptions about them.

Yet despite the supportive voices, negative attitudes have grown louder and stauncher. Since the early 2010s there has been a series of attempts to pass so-called "bathroom bills" to prevent transgender people from using facilities congruent with their gender identity. In 2017 the Trump administration began efforts to reinstate a ban on transgender individuals serving openly in the military which the Obama administration had repealed in 2016 (Turco, 2019). On the internet commentators who oppose transgender rights distribute scientifically unsupported information about the transgender community, referring to transgender people as "mentally disordered," gender "confused," bathroom abusers of women and children, and "men stealing the sexual identities" of women (Munro, 2019; Prestigiacomo, 2016; Walsh, 2015).

Prejudiced attitudes towards transgender people have been found to be highly related to social conservatism and certain varieties of religiosity (e.g., Cragun & Sumerau, 2015; Elischberger, Glazier, Hill, & Verduzco-Baker, 2016, 2018; Norton & Herek, 2013; Tee & Hegarty, 2006; Worthen, Lingiardi, & Caristo, 2017). These same expressions of religiosity are often tied to other types of prejudice, such as that towards out-groups (Hall et al., 2010), other religions (Allport & Ross, 1967; Ingerflom, 1982), sexual minorities (Altemeyer & Hunsberger, 1992; Batson et al., 2016; Jäckle & Wenzelburger, 2015), and other races (Allport & Ross, 1967; Duriez & Hutsebaut, 2000; Hall et al., 2010). However, the mechanisms for the relationships needs more investigation.

Gender essentialism is a construct that can help explain the ways in which religiosity and spirituality are related to transnegative attitudes. Gender essentialism is a variety of psychological essentialism, which can be described as a categorizing pattern of

cognition whereby a person infers that there are essential, necessary qualities that set apart one member of a category from another of a different category. This heuristic is helpful in most daily situations, but psychological essentialism can manifest in various way, some of which are consistently related to certain types of prejudice. Many of the manifestations most related to prejudice also tend to be associated with intolerance for ambiguity, tribalism, and certain types of religiosity and spirituality (Jankowski et al., 2011; Mavor et al., 2011; Sekerdej et al., 2018). Gender essentialism specifically can help explain transnegativity from individuals high in strict ritualistic spirituality (such as religious fundamentalists) because their religious views may support or prescribe a rigid and absolute idea of what constitutes sex or gender.

Even though there has been some level of research finding a relationship with essentialism and prejudice, there has been little done on transnegativity. Indeed, research on transgender issues in general has been sparse compared to others. A basic Web of Science database search for the keywords "transgender" or "transsexual" in article titles from 1970 to 2020 yield only 680 results. For perspective, the keywords "gay" or "lesbian" yield 1,809 results; adding "homosexual" brings the number up to 2,283. "Race" produces 6,533 results. Looking specifically at negative attitudes on these groups, "racism" gets 747 results, "homophobia" produces 100, and "transphobia" results in only 9 hits. These are hardly exhaustive or formal results, but they unambiguously show a pattern of trans issues having received proportionally less attention in science at this point than similar topics.

The goal of this study is to explore the triad of gender essentialism, religiosity, and transnegative attitudes. More specifically, the current research was conducted to

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ascertain the extent to which gender essentialism may help explain prejudice against

transgender individuals by those adhering to or expressing certain modes of religiosity

and spirituality. Understanding this mechanism enables a better understanding of

transnegativity and allows for devising more effective ways to mitigate it.

CHAPTER II

LITERATURE REVIEW

Gender Incongruity and Related Subjects

The last many decades have seen a serious transformation in how society

understands and refers to those who are lesbian, gay, bisexual, transgender, queer, or a

different marginalized sexual minority (LGBTQ+). *Gay* used to simply mean cheerful

and *queer* meant odd. Sometimes queer was used as a slur towards sexual minorities.

Today gay is almost exclusively used to denote a homosexual male, and queer is a highly

inclusive word that non-offensively refers to individuals who may not be heterosexual

and do not necessarily conform to gender expression norms. This evolution in

understanding also coincided with the recognition of individuals whose internally

experienced gender identity is something other than what they were labeled at birth, those

who are *transgender*. Indeed, topics relating to being transgender are of quickly growing

interest.

Sex, Gender, and Their Importance

To understand what it means to be transgender, it is necessary to first identify the

more basic terms of *sex* and *gender*. A consensus exists among the leading relevant

professional organizations that gender and sex are not the same thing (e.g., American

Psychiatric Association, 2013; Stack, 2003; World Health Organization, n.d.). According

to the American Psychiatric Association (2013), sex specifically refers to the biological

components of one's reproductive configuration; chromosomes (XX, XY), primary sex
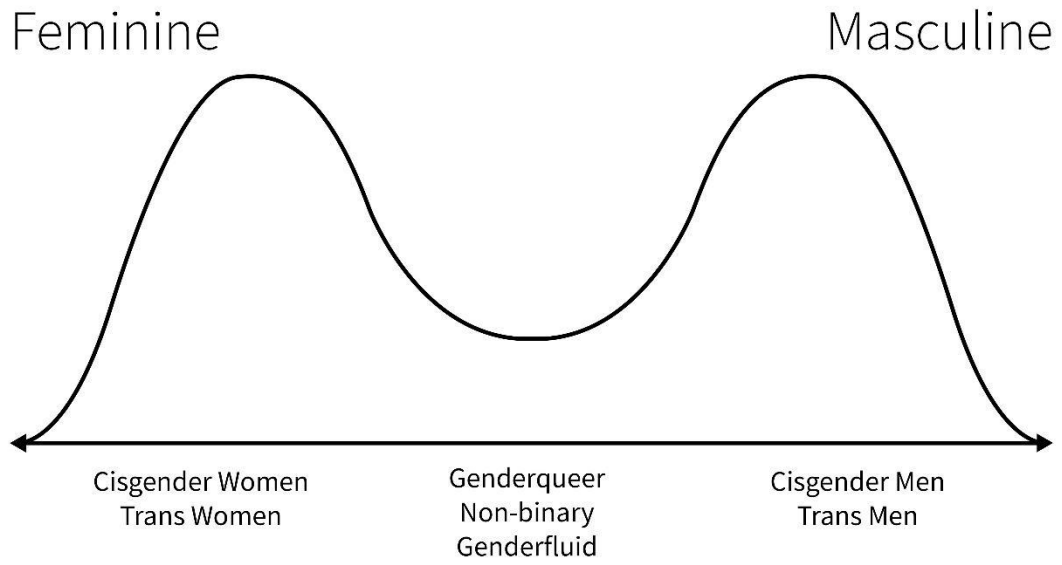
characteristics (such as the vagina, uterus, ovaries, penis, prostate, and testis), and secondary sex characteristics (such as breasts, facial hair, and musculature).

By contrast, a person's gender is the social (usually legally recognized) public lived-in role (American Psychiatric Association, 2013). The World Health Organization (n.d.) elaborates that gender includes the norms and roles that vary by culture, making it a largely social construction that people are taught or otherwise learn socially based on gender assignment at birth. Rather than simply being binary, gender is considered by professionals to be more of a spectrum between masculinity and femininity, with few people being maximally masculine or maximally feminine (Monro, 2005). As shown in Figure 1, gender can be visualized as a bi-modal bell curve on a plane representing gender. The majority of the population exists somewhere approaching either of the two poles.

The term gender, however, is not always used consistently. Early work on the topic arose from the need to better understand intersex individuals. In addition to physical and genetic characteristics, Money, Hampson, and Hampson (1955) identified childhood socialization and *gender role* as things to consider when forming a recommendation regarding whether to raise an intersex individual as a male or female. Gender role was described as what is done and said to convey to others one's status as a boy, girl, woman, or man. Other considerations included sexual attraction, recreational preferences, content in dreams, and similar qualities in the gender category. In later writings Money and Ehrhardt (1973) would differentiate *gender identity* from gender role. The former referred to one's psychological internal experience of gender, and the latter referred to public presentation and interaction.

Figure 1

Conceptual Gender Spectrum Distribution

Feminine   Masculine

Cisgender Women   Genderqueer   Cisgender Men
Trans Women   Non-binary   Trans Men
                   Genderfluid

Later, Unger (1979) argued that *sex* was too often being used in a context where *gender* would be more accurate. Unger pointed out that improper use of sex implied that the differences or traits being compared were natural immutable aspects of who a person was. To Unger, the word sex when used this way seemed to tacitly propose biological determinism, and later identification of terms such as sex-linked traits and gender-linked traits indicated the need for more standardized terminology to use in research on sex and gender (Unger & Crawford, 1993).

Basow (2010) documented the transition during which psychology textbooks steadily increased in their use of the term gender. The social nature of gender became more emphasized while sex came to be confined to discussion of reproductive differences. Muehlenhard and Peterson (2011) reported that there were less than 32 articles mentioning gender in the PsychINFO database before 1960, while sex was used in 6,756 articles. Conversely, in the period from 2000–2011 gender was mentioned in 61,816 articles, and sex was mentioned in 38,311. This change over the decades indicates wide acceptance of the term gender and its usefulness in scientific research.

Relationship of Sex and Gender: Gender-Identity

Gender identity refers to a psychologically experienced state where a person feels that they belong to a particular sex. Perry, Pauletti, and Cooper (2019) define gender-identity as mental patterns concerning a person's appraisals of their compatibility with a gender collective, and their desires to fit in with that collective. Rather than being strictly a psychosocial construct, gender-identity has been confirmed to involve a considerable level of biological factors, including genetic, neurologic, and endocrine contributors (Rosenthal, 2018).

Support for a biological perspective can be seen in examples such as the "John/Joan case" (Diamond & Sigmundson, 1997). An identical twin boy born Bruce Reimer had his penis ablated during a questionable surgical procedure. Constructivist researcher John Money advised the parents that sex reassignment surgery was appropriate; the parents subsequently raised Bruce as Brenda (Muehlenhard & Peterson, 2011). Despite being unaware that he had been born a boy, Reimer experienced gender dysphoria in his early teens, leading him to transition to being male socially and physically. Regardless of having been raised in the gender role of a woman, his internal experience remained that of a man, demonstrating that his gender identity was not merely a social construction.

Other evidence for the biological component of gender identity can be seen in conditions such as complete androgen insensitivity syndrome (CAIS). This condition occurs when the cells of a chromosomally XY person are unresponsive to androgens like testosterone, resulting in them developing as a woman without primary sex organs such as a uterus or ovaries. CAIS demonstrates that there are biological contributors to gender identity apart from simply having either XX or XY sex chromosomes (Deshpande et al., 2012; Philibert et al., 2010). Indeed, considering how nearly completely people with CAIS develop psychologically and externally as women despite having XY chromosomes, hormonal environment during key points in development and one's sensitivity to those hormones is of paramount importance.

Overall, the idea that gender identity is something a person merely chooses is not supported by the evidence. Although socialization and norms factor into gender identity, biology does as well. Some individuals are less dichotomized in their gender, as

represented by the bi-modal bell curve model in Figure 1. As for those closer to the poles of the spectrum, such as cisgender males and females and trans males and females, gender identity is far from plastic.

Transgender

The term transgender is an umbrella that encompasses many other conditions and orientations such as gender-variant, intersex, agender, and genderqueer (Levitt & Ippolito, 2014; Teich, 2012). The World Health Organization (2019) uses *gender incongruence* to refer to transgender individuals because their gender identities are incongruent with their assigned gender. Simply stated, transgender denotes a person who identifies as a gender other than that assigned at birth. A transgender person who identifies as transsexual is one who desires to (or already has) transitioned socially either from male to female (MtF), or from female to male (FtM) (American Psychiatric Association, 2013). The transition can include social affirmation, hormonal therapy, or surgical procedures to help bring the person's external gender approach congruity with their internally experienced gender. Although some still identify as transsexual, that term is generally considered outdated and even offensive. As such, the term will be avoided for the remainder of this study and was only mentioned for educational and historical purposes.

The overall prevalence of those who are transgender is difficult to assess. However, Gates (2011) reports approximately 0.5% to 2% of adults have feelings of being transgender, while 0.1 to 0.5% of adults identify as transgender and have transitioned in some way. Gender dysphoria—as distinct from being transgender without dysphoria—has been reported as low as 0.0082%, with a 4 to 1 MtF versus FtM ratio

(Wilson et al., 1999). Others have reported figures of 4.6 per 100,000 people, or

0.0046%, with MtF being more prevalent than FtM (Arcelus et al., 2015). A recent meta-

analysis by Collin, Reisner, Tangpricha, and Goodman (2016) indicated a range of 100 to

700 per 100,000 for those who self-identify as transgender, 1 to 30 per 100,000 for those

who have received a gender dysphoria-related diagnosis.

Heritability in Twins

As previously discussed, there are biological components to gender identity (e.g.,

J. Money et al., 1955; Muehlenhard & Peterson, 2011; Rosenthal, 2018). Transgender

people are not men merely identifying as women or women identifying as men.

Transgender individuals internally experience themselves as a different gender than the

one they were assigned at birth. One of the aspects of biology affecting being transgender

relate to genetics.

Analyses of twins have provided strong evidence of genetic origins of being

transgender. In a literature review, Heylens et al. (2012) reported a concordance rate of

39.1% among twenty-three monozygotic twins for what was previously called Gender

Identity Disorder (now referred to as Gender Dysphoria). In another study, Coolidge,

Thede, and Young (2002) estimated that genetics were responsible for 62% of the

variance in GID among 314 twins, while nonshared environmental aspects accounted for

the remaining 38%. Segal and Diamond (2014) reported a concordance rate of 33.3% for

being MtF or FtM among identical twins reared apart, and 22.9% for fraternal twins.

Such research demonstrates a genetic component related to being transgender.

Otherwise, twins reared apart should have a concordance rate no higher than the base-rate

of approximately 0.014% (American Psychiatric Association, 2013). This pattern highlights the importance of genetics within the origins of gender identity.

Neurobiology of Transgender Individuals

There is growing evidence that transgender individuals have central nervous systems of elevated neurobiological similarity to the sex that they identify as, or in some cases, characteristics that differ from both sexes. Studies using participants before hormone treatment found similarities in white matter microstructure for trans men and cisgender female controls (Rametti et al., 2011). Additional studies report trans women exhibiting patterns similar to cisgender women in hypothalamic activation while smelling odorous steroids, sources of EEG frequencies, and brain activation patterns during the viewing of erotic videos (Berglund et al., 2008; Flor-Henry, 2010; Gizewski et al., 2009). Evidence like this indicates that the proximal cause for a gender identity incongruent with one's assigned gender is in some part related to neurology that is less similar to assigned gender and more similar to the gender identity of that person.

Additional research finds that trans women have a white matter microstructure different from cisgender male and female controls and similar volumes of gray matter as control men, except that the putamen in trans women was more similar to female volume (Luders et al., 2009; Rametti et al., 2011). For trans females, the putamen volume is smaller in those who are not androphilic and exhibits smaller volumes in the thalamus, higher volumes in gray matter in the temporoparietal junction and the insular and inferofrontal cortex (Savic & Arver, 2011). These findings also support neurological influences regarding one's gender identity, but demonstrate that some of the neurologic variations differ from cisgender male and female.

Summary

Although the situation is not as simple as saying a transgender individual is a male brain in a female body or vice versa, gender identity does appear to be biologically based in the brain to a large degree. Altinay and Anand (2019) describe gender identity in terms of one's phenotype gender—physical sex characteristics such as external genitals—versus brain gender. Those two things line up relatively well in cisgender people, but are incongruent in transgender people. The mechanisms by which genetics and brain neurobiology lead to gender incongruity are still not yet fully known, but the evidence strongly indicates that they play an important role and by adulthood, one's gender identity is largely static.

Cultural and Political Importance of Understanding the Transgender Condition

Transgender issues are an important area to research because of how marginalized the group is in general, and because of the amount of misinformation about the topic in the public sphere. There is a large group of individuals who appear to be engaging in what they consider a culture war (Castle, 2019). The last several decades have seen increasing resistance to the secularizing and modernizing of society, resulting in a movement combining traditionalist religiosity and political partisanship in an effort to fight these changes. Castle (2019) found that religion and party were extremely important factors explaining the motivation behind those waging a culture war against transgender rights and acceptance.

Shortly after coming to office the administration of President Donald Trump rescinded an Obama-era policy suspending the existing ban on transgender individuals serving openly in the military (U.S. Department of Defense, 2016). The declared

rationale was that transgender service members would hurt morale and burden the military with extensive medical costs (Hein et al., 2018). These claims, however, are contradicted by the data on the topic (Schaefer et al., 2016). Additionally, several of the relevant expert associations have released public statements in fierce opposition to reinstating the ban on transgender service members (e.g., American Medical Association, 2017; American Psychiatric Association, 2018; American Psychological Association, 2018). The move by the Trump administration appears to have been motivated by a desire to appease religious traditionalists, exemplified by his vice president Mike Pence (Gonzales & McKay, 2017).

One of the recent heated topics regarding trans rights is about their ability to use the public restroom of their gender identity. An example can be depicted by an incident concerning Jazmina Saavedra, a former Republican candidate for California's 44th Congressional District. Saavedra followed a trans woman into the bathroom at a local Denny's and harassed her about using what Saavedra felt was the inappropriate bathroom (ABC7, 2018). This incident reflects a general milieu among the religious political right characterized by opposition to trans bathroom rights, and exemplified by a wave of proposed bathroom laws seeking to limit the ability of trans people to use the restroom of their gender identity (Jones et al., 2018; Platt & Milam, 2018; Stone, 2018).

In 2016 North Carolina passed House Bill 2 (HB2), a law aimed at denying the right to use the restroom of a person's identified gender (Corbat, 2017; Platt & Milam, 2018). The law went further, though, by barring any future legislation aimed at LGBTQ+ rights. This law seemed to have some religious motivation as it was borrowing much of its language from laws such as Indiana's 2015 Religious Freedom Restoration Act.

Corbat (2017) explains that bathroom laws such as HB2 endanger already at-risk transgender students in public schools. Much of HB2 was later repealed in 2017, but the culture war is still being fought.

Arkansas's Intrastate Commerce Improvement Act of 2015 essentially banned local governments from increasing civil protections to groups not already mentioned by the existing civil rights legislation of the state, which does not include protections for LGBTQ+ people (Pomeranz, 2018). This state move was made after the city of Fayetteville attempted to pass LGBTQ+ civil rights protections. Pomeranz (2018) points out that this type of state legislation is particularly dangerous for several reasons. Many members of the LGBTQ+ community experience depression, anxiety disorders, and other issues at rates above the general population. These issues are exacerbated—and perhaps sometimes originate—from abuse, discrimination, and marginalization. The combined effects of such variables help to explain the observations that LGBTQ+ individuals are more at risk for HIV/AIDS, suicidal ideation, certain cancers, and risky behaviors like smoking and substance abuse. Bad laws mean that LGBTQ+ individuals may not receive the help, protection, care, and treatment they need to mitigate such negative outcomes.

For these reasons, research on transgender topics is important because it can inform policy-makers and the public itself to help mitigate real-world transgender issues. Some of those issues include discrimination and problems encountered by transgender individuals in the work force. Job discrimination against transgender people can be quite pervasive. Of 1,093 trans participants in one study, roughly 40% reported difficulty obtaining a job, and 23% reported losing a job due to discrimination (Nuttbrock et al.,

2014). Evidence-based approaches can go a long way to opening doors in how transgender issues are addressed.

Abuse and Violence Against the Transgender Population

Abuse of transgender people can be included in what is called gender-based violence (GBV). In a sample of 27,715 transgender participants, 10% reported violence perpetrated by a family member resulting from them disclosing their gender identity; 8% reported being expulsed from their home (James et al., 2016). Correspondingly, transgender individuals experience childhood violence at between 27–69%, an estimated 3 times more than cisgender equivalents (Nemoto et al., 2011; Nuttbrock et al., 2014; Reisner et al., 2014). In grades K–12, over 77% of transgender youths experienced abuse at school after disclosing or being perceived as transgender, with 54% being verbal and 24% being physical (Wirtz et al., 2018).

Summary

The transgender component of the LGBTQ+ acronym is of great interest. While acceptance of gay and lesbian individuals has increased, transgender rights are lagging behind. "Don't ask, don't tell" may have been abolished, thus improving things for those of nonconforming sexual orientations, but the enduring push to ban transgender people from the military is a glaring example of the enduring willingness to oppress the transgender community in particular (Hein et al., 2018; James et al., 2016; Schaefer et al., 2016).

More transgender research is necessary to improve understanding about the condition, but a great deal of research has already been completed, and many convergences of evidence have been identified. Gender and sex are not the same thing,

neither are binary, and by adolescence, gender identity is not a malleable aspect of one's self that can simply be chosen. Instead, gender identity is a fundamental component of who a person is. Gender identity has biopsychosocial origins, of which genetic and neurological roots weigh heavy in the equation (e.g., Coolidge et al., 2002; Rosenthal, 2018). This is an important distinction because biology is much more difficult to change than environment.

Despite such knowledge, a group of the United States populace appears to be in the midst of a culture war whereby religion and partisanship have converged to deny and/or ignore scientific findings. This leads to discrimination and violence against a population that has earned neither. To better understand this resistance to human civil rights and scientific evidence, it is important to develop effective ways of identifying those who are engaging in this culture war and why they are in order to tailor campaigns of education and consciousness-raising. Religion and spiritual beliefs of various kinds are an important factor relating to anti-trans prejudice, and it will be vital to understand this relationship in order to have a broader overall comprehension of religion, transnegativity, and rigid essentialist cognition.

Religiosity

Religiosity is a very difficult term to define because so many people mean something different by it. A basic definition of "religious" refers to a person who exhibits a consistent devotion to a deity or ultimate knowledge; one who follows religious requirements and is otherwise pious, godly, and devout ("Religious," 2009). This definition specifies religious observances and beliefs, which is fairly intuitive for most laypersons. If someone asks you if you are religious and you identified that way, you

would probably give the name of your specific organized religion. But when you dig deeper, problems of imprecision and ambiguity become apparent. What label could be given to a person who rejects religious authorities (such as preachers, bishops, or evangelists) and the perfection of the Bible, yet accepts Jesus as the son of God? Or conversely, what would you call an atheist in awe of the complexity of the universe, who thinks of and experiences that awe as deeply profound and transcendent? Some might classify both of those examples as *spiritual* rather than religious, but these examples begin to depict the difficulties with such categorization. More often religion is discussed as regarding culture, tradition, structure, and unchanging eternal truths. Spirituality, conversely, often denotes individualized personal feelings of awe and profundity, thoughtful meditation of existence, and mental flexibility when pondering such existential issues.

Sometimes religiosity is characterized on the basis of extrinsic (E) and intrinsic (I) motivation (Allport, 1963). In this model, people who are motivated intrinsically by their religion are described as having a more mature faith that they live, with religion being an end rather than just a means. Conversely, extrinsic religious motivation was seen to be an instrumental type whereby a person might use it to get what he/she want, thus making it a means more so than an end. Using this perspective, Allport and Ross (1967) found that extrinsic religiosity was related to prejudice more so than intrinsic religiosity. The authors further noted that casual church attenders were more highly prejudiced, and the group that attended the most (11 times per month) was the least prejudiced. However, the largest group—that of church non-attenders ($n = 261$)—exhibited far lower prejudice scores than all but the single most diligent of the 7 church-attending groups; prompting

the authors to identify it as a curvilinear relationship. Another group identified by the authors, those who scored high on both extrinsic and intrinsic scales, was more prejudiced than individuals of either the extrinsic or intrinsic categories alone. The authors labeled this group "indiscriminately pro-religious" (p. 437) because they consistently rated highly all items that appeared to favor religion in any sense (Allport & Ross, 1967).

These findings on prejudice and religiosity raise a relevant question on transnegativity in relation to religiosity. To what degree are the anti-Jewish and anti-black prejudices studied by earlier research comparable to more recently identified prejudices against transgender individuals? Newer research has in fact found church attendance to be predictive of transnegativity and anti-LGBTQ+ attitudes overall (e.g., Worthen et al., 2017). Another question one may ask is, if indiscriminately pro-religious orientation is related to high levels of prejudice, are those who are more agnostic or skeptical towards organized religion less prejudiced? Hall et al. (2010) found this to be the case regarding racial prejudice. More relevant to the current study, Elischberger et al. (2016) found atheism and general low religiosity to be related to transpositivity and less restrictive concepts of gender. Thus, early findings like those by Allport and Ross (1967) regarding other areas of prejudice may be comparable in ways to transnegativity.

Perhaps wondering the same questions, Batson (1976) attempted to expand on the Allport (1963) paradigm. Batson critiqued Allport's two-dimensional model for conflating two distinct factors in the intrinsic part of the scale. Batson proposed a third *Quest* component as distinct from intrinsic religiosity. Quest religiosity was described as not being dependent on specific dogmas or formal institutions. Rather, Batson

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characterized it as viewing religion to be a continuous process of pondering and questioning about important experiences in one's own life and in society. This type of religiosity is similar to conceptualizations of what many would call spirituality.

Religious Orthodoxy

Some categorize religiosity based on orthodoxy. The word orthodox comes from Byzantine Greek/Late Latin and literally means right opinion ("Orthodox," 2004). Being orthodox is primarily about having—or believing you have—perfectly accurate religious documents and the correct interpretation of those documents. Orthodoxy also denotes the degree to which a person interprets sacred doctrines or texts in the literal rather than symbolic sense (Duriez & Hutsebaut, 2000). Sekerdej, Kossowska, and Czernatowicz-Kukuczka, (2018) highlighted the theistic component of orthodoxy with its affirmation in the existence of a deity combined with belief that obeying religious regulations is of the upmost importance; practicing the correct religious rituals and traditions in a way accurate to what the divine consecrator of the religion intended.

Religious Fundamentalism

Religious fundamentalism is a religious orientation manifesting with a general certainty in basic religious truths anchored in the values of tradition and conformity (Hall et al., 2010). Fundamentalism is religion-independent and can refer to individuals in many religions. Kellstedt and Smidt (1991) identify Christian fundamentalism as particularly focused on biblical authority and exhibits a vigorous commitment to proselytizing. Fundamentalism usually encompasses several concurrently held positions: the conviction that there is one set of teachings and beliefs that are the inerrant basic truths about a deity and humanity, the belief that the forces of evil are attacking these

truths which must be defended vigorously, that these truths are sacred and unchangeable, and that those who adhere to all these things hold a uniquely special place with the deity in comparison to all who do not accept and live by these ideas (Altemeyer & Hunsberger, 1992). As such, fundamentalists generally have a strong sense of orthodoxy, they are usually textual literalists, and they routinely support governmental legislative and executive methods of enforcing conformity to their beliefs and taboos (Mavor et al., 2011). This type of religiosity in particular has been found to be related to transnegativity and rigid beliefs of gender as a clearly defined binary (Fisher et al., 2017; C. T. Nagoshi et al., 2019; Warriner et al., 2013).

Summary

There are many ways of conceptualizing religiosity; whether by motivation, by beliefs, or by behaviors. Orthodoxy refers to beliefs and a person's feelings of certainty about having the correct beliefs. Fundamentalism is a militant variety religiosity that interprets religious texts such as the Bible particularly literally, is very intolerant of other interpretations, and tends to be supportive of coercive mechanisms of enforcing conformity to their interpretations (Laythe et al., 2001). Furthermore, these traits have been linked with transgender prejudice and rigid gender beliefs. Rigid conceptualizations of gender are hallmarks of how gender essentialism can manifest, creating inflexible views about what constitutes a proper man or woman, and limiting a person's gender ideas to an absolute binary.

However, his approach to understanding religious and spiritual life is still incomplete. It refers to belief and the ritualistic behaviors of organized religions fairly well, but it overlooks profound existential experience and belief that is absent strict

doctrines or even specific deities. In particular, the term religiosity fails to satisfactorily account for the religious, spiritual and philosophical beliefs that appear to be the most related to low transnegativity and more flexible beliefs on gender. In order to address this shortcoming, it is appropriate to examine the picture more broadly. More specifically, it is necessary to expand on the concept of spirituality to see its importance and to understand how it fits in with religiosity.

Spirituality

Spirituality is a concept that, while related to religiosity and often used synonymously with it, must be treated to mean something specific (Wink, 2010; Zinnbauer et al., 2003). According to the Fetzer Institute (1999), religiousness or religiosity refers more to doctrinal and tribal denomination characteristics, while spirituality is more related to feelings of transcendence and addressing ultimate questions of meaning. This argument seems to be similar with what Batson (1976) was alluding to when proposing quest religiosity, the orientation presented as distinct from intrinsic religiosity.

Scholars sometimes draw a parallel between spirituality existentialism. Not specifically with theistic connotations, but more generally regarding their emphasis on questions of existence and the worries, hopes, and beliefs about it (Flynn, 2012). Existentialist philosophers like Jean-Paul Sartre, Søren Kierkegaard, and Martin Heidegger concerned themselves with questions including what gives life meaning, how to approach death, free will, consciousness, and how to become a more fully authentic person. Brennan (2006) viewed existentialism as a broad category associated with the search for meaning and purpose, with spirituality being a subcategory of it. This

conceptualization suggests that the term spiritual specifies the beliefs in a higher power rather than ties with an organized religion. It combines a level of theism with spirituality. From this standpoint, an atheist who valued profound experience highly and often thought about ultimate life questions might be labeled as existential but not spiritual. Figure 2 illustrates this model.

Conversely, Webb (2003) depicted spirituality as being the broad overarching concept, with existentialism, theism, and organized religious beliefs representing the three corners of an interrelated triumvirate thereof. This is called multidimensional spirituality to represent the multidimensional and nuanced nature of religious and spiritual beliefs. Existential spirituality in this model refers to the type of spirituality irrespective of a god, universal mystical connection, or organized practice of religion. Theistic spirituality denotes belief in a connection to the divine, a higher power, or a god of some type. Ritualistic spirituality is the concept most closely related to organized practice and codified beliefs systems. A person high in theistic spirituality and ritualistic spirituality would exemplify what a typical layperson may refer as religion or religious. A person who is high in theistic spirituality but low in ritualistic spirituality could be depicted as a layperson who self-identifies as an agnostic, a person who rejects organized orthodox or doctrinal religion (though not necessarily its god), but may affirm a universal cosmic force or entity (Flew, 2017). A deist may also occupy this area of the triangular spectrum (Arnett & Jensen, 2002). The multidimensional conceptualization as visualized in Figure 3 attempts to grapple with the relationship of spirituality and religiosity and their multiple dimensions (Webb et al., 2014). Because it recognizes so many different elements of the religious and spiritual experience—beliefs, doctrines, sociological

Figure 2

Model of Spirituality and Existentialism by Brennan (2006)

	Existential but not spiritual
Existential →	Existential and spiritual
Non-existential →	Not spiritual
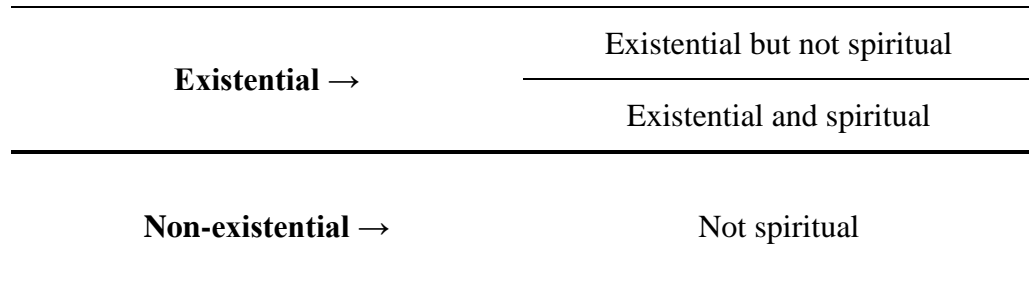
Figure 3

Webb (2003) Concept of Spirituality

	Spirituality	
Ritualistic	Theistic	Existential
Examples. Church attendance, observation of religious holidays, adherence to religious doctrines and dogmas, keeping religious traditions.	*Examples.* Belief in deity(s) or unifying force. Belief a deity(s) will judge rightness and wrongness. Belief a deity(s) has a plan. Belief In the necessity of acknowledging the deity(s).	*Examples.* High value of altruism. Value or drive to *know* oneself. Finding meaning or purpose in life. Sees human life as beautiful. Value for nature.

components, and more—it can help parse apart phenomena that are differentially related to one dimension versus another. For example, separating the aspects of spirituality that are most related to improved mental health and good social functioning from those which are maladaptive to mental health and detrimental to social functioning.

Overall, I find that this three-part conceptualization of spirituality is highly comprehensive and gives a broad picture of a person's spiritual and religious beliefs, behaviors, and feelings. The 30-item Ritualistic, Theistic, and Existential (RiTE) was developed by Webb and colleagues (2014) based on the conceptualization put forth by Webb (2003). Importantly, it does not limit its use to a specific religion such as Christianity or Islam. Instead, most of its questions refer to deities rather than specifically God or Allah, and it enquires into general worship practices and teachings rather than specific things like the Eucharist or Ramadan. The research it has been used in demonstrates it to be versatile as a measuring tool (e.g., Chang et al., 2016; Dangel & Webb, 2017; Jeter & Webb, 2016), and it takes into account both spirituality based on organized religion and in absence of it.

Summary

As discussed, religiosity and spirituality are related yet distinct constructs. While people frequently have some level of both, a person can have higher levels of one than the other (Webb, 2003). A person can, without much existential pondering, jump through the hoops of organized religious ritual. Others, engaging in the same ritual, may add a high level of existential spirituality to their experience and live their religion (Allport, 1963; Allport & Ross, 1967). Such a person might examine the important and profound questions of life, but from the anchored context of their specific religion. Moving still

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further from organized religion or doctrinal adherence (but maintaining a high level of existential spirituality and theism) a person may affirm a universalist point of view where they feel that the good aspects of all religions are equally true and come from the same universal cosmic spirit(s); that the bad in all the religions is human-caused corruption. You can even have a firm atheist who puts a premium on experiencing and examining the profound spiritual/existential aspects of life, like Jean-Paul Sartre himself. In fact, the neuroscientist, philosopher, and atheist Sam Harris wrote a book intended to be "a guide to spirituality without religion," as indicated by that phrase appearing in the book title (Harris, 2014).

Implications

Religion may encourage some level of spirituality or existential thinking simply because it usually involves a deity or universal spirit and the religious adherent's position in relation to this deity. However, religion is not requisite for spiritual thinking, nor is it an inoculation from anti-social harmful behavior. Indeed, religion is often a cause or a contributor of prejudice and discrimination. Among others things, it has been implicated in racial prejudice, prejudice against Jewish people, prejudice against members of the LGBTQ+ community, prejudice against atheists, and prejudice against other religions (e.g., Altemeyer, 2003; Altemeyer & Hunsberger, 1992; Gorsuch & Venable, 1983; Heaven, Ciarrochi, & Leeson, 2011; Heiphetz, Gelman, & Young, 2017; Jahangir & Abdul-Latif, 2016). Transnegativity in particular is relevant for the current investigation. Understanding the ways in which spirituality and religion work by themselves and in relation to one-another is of upmost importance when trying to solve the social and mental problems that they have been found to relate with.

Religion, Spirituality, and Anti-LGBTQ+ Prejudice

Motivation of Religious-Related Prejudice

To defend discriminatory practices against people of the LGBTQ+ community, many cite sacred texts. In a meta-analysis Jäckle and Wenzelburger (2015) analyzed previous studies of several mainstream religions from various countries to determine their level of homonegativity. Included in this analysis was an evaluation of sacred texts such as the Quran and the Bible and what they say about homosexuality. Notable passages included those of Leviticus 20:13 of the Bible where it says people engaging in same-sex intercourse "are to be put to death," and Surah Al-A'raf 7:80-81 of the Quran which chastises men for approaching other "men with desire, instead of women." Based on such references to homosexuality within religious texts—in addition to evaluations of how religious leaders today place themselves relative to the topic of homosexuality, and how prominent the fundamentalist undercurrents are of each religion. The authors ranked Islam as the most homonegative, followed by denominations of Christianity, then major eastern religions. Atheists were the least prejudiced. Results from Altemeyer (2003) match such findings, noting that frequent familial emphasis on Leviticus 18:22 and Romans 1:26–27 likely contribute to what they report as a .50 correlation between Christian fundamentalism and homonegative prejudice.

The pattern of homonegativity has been seen in a diverse range of studies with diverse participant groups. With a primarily Muslim population in Turkey, Saraç (2015) reported a significant strong correlation between males' religiosity and homonegativity, and a significant moderate correlation between females' religiosity. Like Christianity, Islam contains homonegative doctrines in its sacred texts, so the more intensely a Muslim

holds to those traditional doctrines the more they reflect the negative feelings of those doctrines towards homosexual people. This confirms earlier research done in Turkey, and it aligns with similar investigations in the United States on primarily Christian populations (e.g., Gelbal & Duyan, 2006; Herek & Capitanio, 1995; Schulte & Battle, 2004). Interestingly, those reports also indicated that the increased anti-homosexual prejudice seen from the African American community in the United States narrows drastically—or even disappears—when religiosity is adjusted for. Worthen et al. (2017) found transnegative and homonegative beliefs across the US, Italy, and Spain correlated strongly with religion along with feminism and politics. Oklahoma was the most trans and homonegative, and in Texas, biblical literalism was one of the single highest correlates with negative attitudes of LGBTQ+ individuals.

Transnegativity from Conservative Religiosity

It is not only gay and lesbian individuals that find themselves targets of religiously motivated prejudice and discrimination. One of the most visible and recently emerging issues in the public sphere (at least in the United States) is that of transgender issues and prejudice against trans people. A substantial portion of the anger and attacks directed towards the trans community seem to originate from religious motives; especially beliefs, traditions, and traits which often correspond with Right-wing Authoritarianism (RWA) and fundamentalism (Claman, 2009). The group that fits this description in America is often identified specifically as the Religious Right (Braunstein & Taylor, 2017; Keckler & Rozell, 2015; Stone, 2018; Vogel, 2016). Anzani, Di Sarno, Sacchi, and Prunas (2018) found that religious beliefs were a significant predictor of transnegative feelings. Similar results were seen in other studies (e.g., Cragun &

Sumerau, 2015; Elischberger et al., 2016, 2018; Norton & Herek, 2013; Tee & Hegarty, 2006; Worthen et al., 2017). More specifically, Religious Fundamentalism (RF) has been demonstrated to have a strong and consistent relationship with transnegative attitudes and feelings (e.g., Parent & Silva, 2018; Rye et al., 2019). Indeed, RF, RWA, and transnegativity have been consistently been demonstrated to have strong relationships with one another (e.g., Garelick et al., 2017; Loo, 2015; Nagoshi et al., 2019; Warriner et al., 2013). Such findings raise the question of which is the antecedent, transnegative religious persuasions like RF or transnegativity? To help decide this one can look at the beliefs of those who start out as religious and leave religion.

Religion as a Predictor of Transnegativity

Research reported on by Ledrew (2013) sheds light on the beliefs of people who began religious but through a process of doubt, rejection of old beliefs, and establishment of new ones became non-religious or atheists. According to the author, inferring from the sample data he referenced, this trajectory represents most atheists. Thus, with the trend that atheism is highly correlated with pro-LGBTQ+ feelings and religiosity higher in the opposite direction, and because most atheists transitioned to atheism from theism, it stands to reason that their former LGBTQ+ negativity was a result of their religious socialization and beliefs. Indeed, it is extremely common for homosexual and transgender people to feel their sexual orientation or gender identity is in direct conflict with their religion (Beagan & Hattie, 2015). This perceived conflict is usually dealt with by either rejecting religion, rejecting one's sexual or gender identity, or migrating to a spiritual orientation further from ritualistic spirituality and closer to existential spirituality. Gibbs and Goldbach (2015) reported that more than half of the LGBTQ+ people in their sample

who were raised religious perceived a conflict between their identity and the religion they were brought up in.

Longitudinal data tracking the LGBTQ+ attitudes of individuals before and after leaving religion would be extremely helpful to substantiate the view of spiritual orientation as a root of transnegative attitudes, but such data remains elusive. There are, however, many anecdotal examples supporting this pattern of transformation described by (Ledrew, 2013). Former preacher John W. Loftus described being born again, protesting at gay bars, then leaving religion and adopting a pro-LGBTQ+ world-view (Loftus, 2012). Seth Andrews described growing up as conservative, religious, and anti-LGBTQ+, then shed his trans and homonegativity once he left religion (Andrews & Dawkins, 2013). Former fundamentalist Matt Dillahunty has publicly described a similar transformation. While more formal research needs to be conducted, the evidence reviewed thus far is sufficient to form a reasonably confident hypothesis on religiosity or ritualistic spirituality as an antecedent and potential basis of transnegativity.

Why Might Conservative Religiosity Lead to Trans and Homonegativity?

Canales (2018) postulates that the Religious Right believes males and females are the products of God's will on the cosmic order and primordial elements of creation. Thus, they see reproductive males transitioning to females (and vice-versa) as violating God's plan. They see being transgender as *a choice* based on external factors because they believe God would not have created trans people who are truly trans. This belief that transgender identity is attributable to choice and external factors rather than an internal or biological trait of a person leads such people to have significantly more negative attitudes of transgender individuals (Elischberger et al., 2016). One of the concepts most

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applicable here is that of psychological essentialism; a trait that can lead to an absolutist,

black-and-white belief pattern that certain things have fundamental essences that can

never be changed (Gelman, 2004; Gelman, 2003).

Implications

The evidence thus reviewed on religion and prejudice does not indicate all ways

of being religious or spiritual inexorably lead to being prejudice against LGBTQ+

individuals. As Allport (1954) said, religion can be a paradox; while the largest religions

often include doctrines of brotherhood and helping the helpless, other competing

doctrines and practices within them are frequently divisive and brutal. The ways in which

religion offers fellowship, social support, sometimes fosters altruistic behavior and helps

give a person a sense of purpose can all be beneficial things. However, it is equally clear

that some manifestation of religiosity or spirituality can have the capacity to entrench and

support prejudice against out-groups such as other religions, other races, and the

LGBTQ+ community.

<center>**Cognition Behind Gender-Based Prejudice and Spirituality**</center>

Simply being religious does not make a person prejudiced, and non-religious

people are not free from prejudice. However, certain aspects of multi-dimensional

spirituality have been found to correlate with prejudice. High levels of ritualistic

spirituality in particular, as well as theistic spirituality, either mediate or lead to cognitive

and behavioral patterns conducive of prejudice. To understand the relationship between

multidimensional spirituality and prejudice it is helpful to understand the modes of

cognition and cognitive styles which together and independently relate to prejudice and

discrimination. It will be important to demonstrate this pattern of prejudice in order to

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understand how religion relates to prejudice of the LGBTQ+ people, particularly the transgender community.

Theory of Mind

Theory of Mind (ToM) is an advanced executive ability whereby a person is able to attribute thoughts, beliefs, experiences, and mental states that they are familiar with to other people, especially to understand and predict others and their behavior (Pedreño et al., 2017). Neuroimaging studies have found ToM and empathy to have a significant amount of overlap regarding their neural networks (e.g., Riccardi, Pacifico, Stratta, & Rossi, 2010). This is notable because being able to empathize with someone tends to reduce your prejudice for them (Nicol & Rounding, 2013). Bradley (2009) found religious fundamentalism to be very negatively correlated with empathy, while spirituality (akin to the existential spirituality) was positively correlated with empathy. This is likely a result or results from the tendency for fundamentalists to engage in inflexible absolutist cognition that leaves little room for considering alternative or non-literal interpretations to doctrine or their world-view (Mavor et al., 2011). Doubt and failing to internalize their beliefs are considered weakness from their perspective.

This combination of cognitive inflexibility and seeing things incongruent with their religion (such as being gay or being of a different religion) as an evil affront to it leaves them susceptible to reduced inclinations towards empathy (Altemeyer & Hunsberger, 1992). However, as all of this suggests, the connection of ToM to prejudice seems to be indirect—through empathy—and empathy can be quite high for people considered in one's in-group or tribe whether that is a fundamentalist group or not, so it

does not seem that either ToM or empathy is the most parsimonious way of connecting religious and spiritual beliefs to transnegativity.

Egocentrism

Egocentrism is about difficulty discarding one's own preferences, beliefs, and perspectives in order to more accurately infer the knowledge or feelings of other people (Thomas & Jacoby, 2013). High levels of egocentrism can lead a person to assume members of their in-group hold their own perspective in addition to assuming out-group members oppose their perspective (Abrams, 2011). This is because egocentric cognition biases you to assume people in your in-group *must* be like you by virtue of them being in your group. Such attribution of values, beliefs, and desires is not limited to assumptions about other humans. In one study, when estimating about how a deity's beliefs line up with one's own, people responded in an even more egocentric manner than with other humans (Epley et al., 2009). This could be related to people feeling that their own beliefs are more solid or justified if others agree with them.

Even so, egocentrism has difficulty explaining transnegativity from religious and spiritual orientations. While it relates to in-group/out-group dynamic which may relate to political orientations which themselves may relate to attitudes towards transgender individuals, egocentrism fails to distinguish itself as a uniquely important bridge in-between spirituality and anti-trans prejudice. Indeed, there is little evidence to indicate that individuals in the LGBTQ+ community, such as those who are transgender, are not themselves as egocentric in nature as those outside of the community.

Intolerance for Uncertainty or Ambiguity

Much of the world does not fit neatly into single categories. Ambiguous things cause an increased cognitive load, mental stress, and otherwise cognitive discomfort, thus necessitating coping mechanisms for ambiguity; different cognitive organizational styles develop to meet this need. Some people look to science and technology to increase understanding about the natural world and ease categorization stress (Rutjens et al., 2009, 2010); some people look to the law to give them firm structured prescriptions on behavior and interactions (Hofstede, 1984); and others look to religion to give universal explanations a paradigm for interpreting people, culture, and the world (Farias et al., 2013). Research by Sekerdej and colleagues (2018) found that prejudice—against out-groups such as homosexual, black, and atheist individuals—and intolerance for uncertainty were mediated by the type of religiosity that emphasized adherence to tradition, following religious doctrines, having a firm belief in a god, respecting religious taboos, and attending church.

While intolerance to ambiguity is an interesting trait, it has little explanatory power. It is more of a narrow observation rather than a meaningful insight into exactly how multidimensional spirituality is related to transnegativity. The more sophisticated concept of psychological essentialism gives a framework with which intolerance for ambiguity may cause or be caused by natural kinds beliefs. By itself, however, intolerance for ambiguity has a limited utility, particularly for the current study.

Summary

The evidence reviewed strongly suggests that several factors converge to make specific types of religiosity particularly conducive of transnegativity. Decreased ToM and

lower levels of empathy lead to a judgmental callousness in their treatment of others, especially those who do not abide by their beliefs (Bradley, 2009; McHoskey, 1996; Nicol & Rounding, 2013). Egocentrism inflates their certainty in their beliefs because the feeling that God agrees empowers them to spread and enforce them at the expense of the beliefs and rights of other people (Epley et al., 2009). An aversion to ambiguity or things that do not fit their categories reinforce the natural human propensity to form in-groups and out-groups. The consequence is particularly positive, nearly instantaneous evaluations of in-group members, and particularly negative evaluations of out-group members (Sekerdej et al., 2018). These associated cognitive patterns result in authoritarian religion exhibiting prejudice against many groups, including sexual minorities such as transgender individuals.

Despite this data, however, an issue remains. Individual cognitive dimensions such as intolerance for ambiguity, egocentrism, or ToM levels only describe or explain a narrow portion of the variance between multidimensional spirituality and transnegativity, and often very indirectly (Bradley, 2009; Sekerdej et al., 2018). Instead, a better approach may be to look at broad cognitive patterns of categorization and belief formation and expression. It is important to ascertain how people of transnegative religious orientations form their beliefs about those who are transgender, and what makes those beliefs more or less inflexible. We need to look at not only how such people view transgender individuals, but also gender itself. It is necessary to consider this whole constellation of cognition and beliefs within a framework sufficiently broad to provide context, but also capable of focusing in and targeting attitudes towards transgender individuals.

Psychological essentialism, and gender essentialism in particular, offers a unique way to address these things.

Essentialism

Essentialism is a broad concept that has been around since antiquity. Many philosophers have expounded their ideas about it. In more modern times psychological scientists have adapted it for use in understanding human behavior. They see essentialism as a cognitive faculty that helps us to sort objects into categories and differentiate between those categories. Understanding the relationship of categorization and moral assessment may help us understand why certain types of religiosity have consistently correlated with prejudice against the LGBTQ+ community.

Philosophic Essentialism

In philosophy, essentialism very broadly concerns itself with the defining properties of an object. The essence of an object is its necessary or essential characteristics. As found in the Ross (1924) translation of Metaphysics, Aristotle described a taxonomic approach whereby things could be sorted by their essential properties, or essences. For Aristotle knowledge comes from a logical argument based on a fundamentally true premise. To know these basic true premises, we must know their essence. What is something's essence? According to the Popper (1966) interpretation of Aristotle, it is how something is defined, what its defining formula is. How are these definitions formulated? Ideally after considering many observations, but ultimately it comes down to a leap of intuition. Haslam, Rothschild, and Ernst (2000) explain that from this perspective an essence is only present if all necessary conditions or traits are fully satisfied; an all-or-nothing approach.

John Locke marked an important departure from earlier thought on essentialism. Locke does not preclude the idea of real essences, but asserts that human understandings of objects come from conceptual meaning and linguistic definitions (Locke, 1690). He distinguished between *real* and *nominal* essences. According to Lock, there are people who use the word essence from the perspective that natural things have a real essence that perfectly fits what it is, and in practice these people behave as though they have direct access and knowledge of the essence when they do not. Locke then describes what he considers a more reasonable view where a person may affirm a real essence, but acknowledges they only have access to perceptible qualities on which they classify and sort things with names. This distinction by Locke is important because it presages scientific approaches taken regarding psychological essentialism and distinguishing natural kinds from "pseudo-natural kinds" (Haslam et al., 2000, p. 120). Charles (2002) summarized that the philosophy of Locke (and others like David Hume) argued that intelligible discourse must be rooted in our understanding of ideas and concepts rather than metaphysical argument. Something *may* be a natural kind, but because we only have access to things through limited senses and linguistically limited reasoning it would be an error to treat kinds with certainty, as if you do have direct access and a perfect understanding of them.

Psychological Essentialism

I consider psychological essentialism as distinct and more specific than generalized philosophical essentialism. With psychological essentialism, cognitive scientists are concerned not so much with determining what something's true essence is, but are instead focused on how essentialist cognition operates in humans. Psychological

essentialism is a scientific theoretical framework that is used to understand mental

categorization, belief-formation about those categories, and flexibility or inflexibility in

interpreting one's mental categories. Investigators of psychological essentialism are not

attempting to identify or measure necessary and sufficient traits or essences. Rather, they

are attempting to understand how the human brain uses essentialism as a cognitive tool

and how this cognitive tool can manifest.

Haslam et al. (2000) described two aspects of psychological essentialism; natural

kinds beliefs and entitativity. Entitativity refers specifically to the degree to which

someone considers a group or aggregate to be a true entity and the degree to which it is

homogeneous, unified, or similar. This affects how they make assumptions and

inferences about members of the group in question. With respect to natural kinds, the

approach is more about ontology. People have different lay theories about what

constitutes a natural kind. These lay theories are based on things such as necessary

characteristics, immutability, causality, and discreteness. Rothbart and Taylor (1992)

explained that social categories are more like human artifacts than natural kinds. When a

person begins to reify social constructs and view them as immutable with fundamental

essences they have created pseudo-natural kinds which may lead to inferential overreach,

illusions of homogeneity, and other cognition conducive of prejudice Haslam et al.

(2000).

Transnegativity and Psychological Essentialism

A good amount of evidence exists indicating that psychological essentialism is

related to general prejudice (e.g., Gill & Mendes, 2016; Mandalaywala et al., 2018;

Williams & Eberhardt, 2008). That suggested psychological essentialism could also be

applicable to transnegativity. There is much data to supported this hypothesis. Wilton et al. (2019) looked at essentialist beliefs concerning the social construct of gender directly, finding that it correlated with opposition to both cisgender women and transgender rights. In addition to that, the authors found that exposure to anti-essentialist messages reduced prejudice against transgender people and cisgender women. The authors concluded that essentialized cognitive patterns lead to the formation of lay theories about men and women which serve to feed prejudice, opposition to rights, and dubious inferences. Callahan and Zukowski (2019) found essentialism to be significantly correlated with prejudice and opposition to transgender men and women using the bathroom of the gender they identified as. These are compelling findings.

Gender Essentialism

Gender essentialism is a variety of psychological essentialism that involves using gender as a categorization heuristic; how a person forms and uses beliefs about the essence of gender. When a person is very essentialist regarding gender, it is said that they are treating gender as a natural kind rather than a social kind (Gelman, 2003). Haslam et al. (2000) refers to this as creating pseudo-natural kinds that often lead to putting too much inferential value on gender. A person who is highly gender essentialist may believe things along the line that there is no difference between sex and gender, that there are only two distinct genders, and that these genders have little overlap. These things suggest that gender essentialism would be particularly related to anti-transgender sentiment, and the data supports this.

Many studies on gender essentialism and related traits support the connection of gender essentialism to transnegativity above and beyond general psychological

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essentialism. Wilton et al. (2019) measured both general essentialism and gender essentialism in respect to its relationship to support for transgender rights. They found that gender essentialism was substantially related to rejection of trans rights, while general essentialism was less so. Ching et al. (2020) looked at the relationships among gender essentialism, trans prejudice, and other variables like authoritarianism and social dominance orientation. Their results showed that among the variables analyzed, the largest correlation was between transprejudice and gender essentialism. Elischberger et al. (2018) found that strong binary gender beliefs correlated with disapproving attitudes towards transgender people in an Indian and United States sample. With the United States sample, gender binary beliefs predicted transgender disapproval more strongly than all other measured variables.

Ruiz et al. (2017) made the connection of gender essentialism to traits related to religion and spirituality. The authors found that beliefs associated with gender essentialism, such as male headship of the home or female domesticity, were correlated with religious attendance and biblical literalism. Worthen et al. (2017) obtained similar results. Elischberger et al. (2018) further found religious disapproval, binary gender beliefs, and disapproving attitudes towards the transgender community firmly correlated.

Measuring Gender Essentialism

There have been various approaches to measuring gender essentialism. Some simply measure one or more features believed to reflect gendered beliefs, such as support for male headship of the family or a belief that women are better than men at taking care of children (e.g., Ruiz et al., 2017). Coleman and Hong (2008) approached the question by looking at lay theories about gender as nature versus nurture, and looking at one's

self-stereotyping as one gender or another. To accomplish this the authors subject participants to a battery of measures assessing gender theories, sex role beliefs, sexism, and others. While they gathered valuable data, the Ruiz et al. (2017) approach fails to be very comprehensive with regard to the scope of possible gender beliefs, and the Coleman and Hong (2008) approach is indirect. A more direct approach that sheds light on the type of cognition behind gender essentialism is one that includes both beliefs of natural kinds and entitativity (Haslam et al., 2000).

Skewes et al. (2018) devised a scale that inquires directly into beliefs of the biological immutability of gender, discreteness, generalizability and inductive value, and social positions. In the scale's development they discuss common adages such as "men are from Mars and women are from Venus" as indicating highly essentialist thinking about gender. Specifically, such phrases indicate the belief in a fundamental all-encompassing difference between men and women. Much of this belief is recognized by Skewes et al. (2018) as resulting from natural kinds beliefs and reifying the social construct of gender. This leads to a dubious over-inferencing regarding the biological immutability of many female and male traits that are either fairly mutable or not very different at all. As a result, people that are highly gender essentialist in this way tend to be much more sympathetic to sex and gender inequalities, and more hostile to people who violate the expectations of gender norms (Keller, 2005; Swim et al., 1995). This is because when a person believes gender inequalities to be inevitable and natural, they see opposing nature as either frivolous or undesirable.

The scale developed by Skewes et al. (2018) has been used successfully in several studies. The study in which they developed their Gender Essentialism Scale (GES)

reported impressive psychometrics and found gender essentialism significantly predictive of male outrage against women seeking political power. Ching, Xu, Chen, and Kong (2020) successfully used the GES to predict prejudice against transgender individuals. Şahin and Soylu Yalcinkaya (2020) used the GES to strongly and significantly predict various kinds of sexism and acceptance of gender inequalities. In that study gender essentialism was much more successful at predicting these variables than general essentialism, which was also measured.

Gender Essentialism as Mediator to Transnegative Spirituality

Psychological essentialism develops very early in childhood (e.g., Diesendruck, 2018; Gelman, 2003). Children infer essences that define something into a category even if they do not know what that essence is, and they inductively draw inferences in novel situations based on such essences (Gelman, 2004). Nearly as accepted is that children develop gender essentialism at a young age (e.g., Gülgöz et al., 2019). However, there are some serious caveats to this argument. Much of it involves language, the fact that a good deal of what children label as boy or girl are things that are directly taught to them linguistically through language by adults. So, children may naturally see gender as something that is unlikely to change throughout a person's lifetime (an essentialist belief), but what constitutes a gender, how many there are, gender's true significance, the strength of inductive value gender has, and much else, is determined by teaching, experience, and enculturation.

Thus, humans are born with the cognitive faculties and inclinations to essentialize in a very broad way about categories and category memberships. But there is a great extent to which experience and teaching can change the developmental trajectory of how

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essentialism is expressed. Humans are born with the dials so to speak, but experience and teaching turns the dials up or down. This is important for its implications concerning the malleability of gender essentialism and methods of reducing transnegativity. Exposure to anti-essentialist messages has been found to reduce gender essentialism, sexism, and transnegative attitudes (Wilton et al., 2019). Şahin and Yalcinkaya (2020) found that exposure to scientific evidence on brain similarities between men and women reduced gender essentialism and sexism. Indeed, like with many types of prejudice, mere exposure/contact with transgender individuals seems to be capable at reducing prejudice and essentialism (e.g., Allport, 1954; Bariola et al., 2015; Flores et al., 2018; Jones et al., 2018; King et al., 2009).

The hypothesis for the current project is that religious traditions and cultures that place special emphasis on scriptures, writings, and traditions which portray hyper-essentialized conceptions of gender lead to greatly elevated levels of gender essentialism in the adults or children that come to accept these conceptions. That is, ritualistic spirituality appears to turn the dials of gender essentialism and transnegativity substantially upwards. A direct connection among transnegativity, gender essentialism, and ritualistic spirituality is supported by a good deal of data (e.g., Elischberger et al., 2018; Ruiz et al., 2017; Wilton et al., 2019; Worthen et al., 2017). Additional data connects the most ritualistic varieties of spirituality to transnegativity (e.g., Anzani et al., 2018; Cragun & Sumerau, 2015; Norton & Herek, 2013; Parent & Silva, 2018; Tee & Hegarty, 2006).

The current investigation goes further to assert that spirituality and gender essentialism are not just independent predictors of transnegative attitudes, but are related

to one another. A mediating relationship is proposed. Moderation is not believed to describe the relationship. This is because with moderation the independent variables are normally unrelated to each other apart from both being related to the dependent variable. In this case, known data indicates that ritualistic spirituality and gender essentialism are highly related to one another in addition to transnegativity. Ritualistic spirituality is believed to be antecedent to gender essentialism in this relationship because of several lines of evidence.

The first line of evidence is that many sacred texts have specific passages and doctrines that can readily be interpreted as opposing non-essentialized conceptions of gender and gender roles, and that individuals within religions with such sacred texts trend much more transnegative than ones without such concrete doctrines (Altemeyer, 2003; Jäckle & Wenzelburger, 2015). Additionally, there are life and marital manuals published by those such as the Orthodox Jewish community and evangelical Protestants. Such books have powerful effects through essentializing and stereotyping gender, blaming mothers, and prescribing strict gendered divisions of labor (Novis-Deutsch, 2020)

Further evidence for ritualistic spiritual orientation as an antecedent predictor of gender essentialism comes from analyses on conversion. When converting to a religious denomination or religious culture that emphasizes the scriptures and early writings for which the religion is founded on (greater ritualistic spirituality), gender essentialism increases. That is, the existing cognitive tendency that people have is modified by doctrine and new enculturation to exhibit rigid binary gender essentialism. King (2017) describes converts to a conservative version of Islam and how they obtained a "new-found conviction of the inherent difference between men and women" (p. 466). More

conclusive evidence may be gleaned from longitudinal studies looking at gender essentialism levels before and after conversion to a fundamentalist or otherwise conservative version of religiosity, but such data is either obscure or nonexistent.

Current Study

Though there has been some level of research finding a relationship with essentialism and prejudice, there has been little done on transnegativity. In addition to this blind spot for transgender research in general, to my knowledge there has been no research done considering essentialism as a possible mediator for the relationship between ritualistic types of spirituality and prejudice against the transgender community. This is striking considering the examples mentioned in earlier sections showing that essentialism has had success in explaining racial prejudice, and that ritualistically spiritual individuals tend to essentialize gender as a natural kind rather than a social construct. Researching gender essentialism is extremely important in understanding the link between spirituality and the serious prejudice towards the transgender community and the severe marginalization of individuals in it. Essentialism may help to explain why some types of spirituality and religiosity are more closely connected with transnegativity.

Since it is not yet quite understood why cognitive tendencies and traits like egocentrism, intolerance for ambiguity, or stereotyping are so common among prejudiced theists, approaching the topic from the perspective of essentialism may offer a parsimonious mechanism by which prejudice and the mental patterns that give rise to it develop. Parsimony is important because using a dozen different cognitive traits to predict transnegative attitudes would introduce serious issues of multicollinearity; whether one's predictors really predict the dependent variable or whether they all simply

covary with one another or something else. Looking at essentialist tendencies as a mediator for spirituality and prejudice against transgender individuals would be a much simpler model.

When one treats a social kind as a natural kind it opens them up to adopting rigid absolutist patterns in cognition regarding those social kinds. In particular, the tendency to see things related to gender such as identity, norms, or expression as immutable natural facts of nature that should not be opposed or denied. These same patterns are often found with highly prejudiced attitudes. Transnegative religiosity thus may be mediated by high levels of essentialist thinking.

The current study seeks to investigate multidimensional spirituality and its constituent factors in relation to transnegative attitudes and whether essentialist thinking regarding gender mediates this relationship. It was expected that overall spirituality as measured by the RiTE would be associated with higher levels of transnegative attitudes, and that gender essentialism would serve as a mediator in this relationship. Additionally, ritualistic spirituality was hypothesized to have the strongest relationship with prejudice out of all the individual components of the RiTE. It was also hypothesized that the mediation relationship with gender essentialism would be strongest with ritualistic spirituality. The following research questions are proposed.

(1) To what extent does multidimensional spirituality predict attitudes towards transgender individuals?

(2) To what extent does ritualistic, theistic, and existential spirituality uniquely predict attitudes towards transgender individuals?

(3) To what extent does multidimensional spirituality predict gender essentialism?

(4) To what extent does ritualistic, theistic, and existential spirituality uniquely

predict gender essentialism?

(5) To what extent does gender essentialism predict attitudes towards transgender

individuals?

(6) To what extent does gender essentialism mediate the relationship of spirituality on

attitudes towards transgender individuals?

CHAPTER III

METHOD

Participants

Participant were 166 undergraduate students ($M = 23.25$, $SD = 6.9$) enrolled at

West Texas A&M University. Of those participants, 115 identified as female, 47

identified as male, and 4 were not identified. As for ethnicity, there were 95 who

identified as white/Caucasian, 47 as Hispanic, Latino, or Spanish origin, 14 as black or

African American, 1 as Asian, and 9 as other. Of religious traditions, there were 144 who

identified with Christianity, 8 with agnosticism, 1 with Buddhism, 1 with Judaism, and

12 as other.

Measures

Multidimensional Spirituality

To evaluate the multiple dimensions of spirituality, the Ritualistic, Theistic, and

Existential Measure of Spirituality (RiTE; Webb et al., 2014) was used (see Appendix C).

The RiTE is a 30-item assessment of multidimensional spirituality with 10 items

dedicated to each of three types of religiosity/spirituality: ritualistic spirituality (e.g., ''I

observe or follow the rules of a formal belief system''), theistic spirituality (e.g., ''I feel

connected to a deity or deities''), and existential spirituality (e.g., ''I see life as a journey

toward fulfillment''). Items are scored on a 5-point Likert scale ranging from 1=*strongly

disagree* to 5=*strongly agree*. Scores on each individual RiTE subscale are summed

resulting in three separate scores each ranging from 10–50. Higher scores indicate greater spirituality in the given subscale.

Internal consistency of the three 10-item subscales was investigated by Webb and colleagues (2014) utilizing Cronbach's alpha. Cronbach's alpha is a measure of consistency and reliability with possible scores ranging from 0 to 1 (Cronbach, 1951). A .70 would be considered acceptable, .80 would be good, and .90 would be very good. The alphas for the subscales of the RiTE are as follows: Ritualistic ($\alpha = .92$), Theistic ($\alpha = .98$), Existential ($\alpha = .91$).

Content Validity. The paradigm of multidimensional spirituality shaped the three scales of the RiTE: ritualistic, theistic, and existential spirituality. Common approach in existing literature distinguishing religiosity from spirituality as organized religion from intrinsic search for purpose (e.g., Bradley, 2009; Fetzer Institute, 1999; Zinnbauer et al., 2003) are reflected by the ritualistic and existential scales respectively. However, to account for secular spirituality absent supernatural beliefs in a deity or deities, the theistic component was made into the discrete element, theistic spirituality. This recognition of the difference between secular and theistic spirituality is supported by much research (e.g., Brennan, 2006; Jankowski et al., 2011; Wink, 2010; Zinnbauer et al., 2003).

Construct Validity. Webb et al. (2014) assessed convergent/divergent validity by analyzing the relationship of the RiTE with established scales on: the Religious Orientation Scale (ROS; Allport & Ross, 1967) and the Spiritual Well-Being Scale (SWBS; Paloutzian & Ellison, 1982). Ritualistic and theistic spirituality showed strong convergence with SWBS religious well-being and ROS intrinsic orientation ($r = .70–.81$), existential spirituality showed divergence ($|r| = .29–.26$). All three RiTE subscales had

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modest relationships with SWBS existential well-being, though existential spirituality showed less divergence ($r = .39$) than ritualistic ($r = .32$) or theistic spirituality ($r = .33$). All three were highly divergent from ROS-extrinsic ($|r| = .02–.06$). These results show that the theistic and ritualistic subscales of the RiTE measure a construct similar to intrinsic religious orientation and religious spiritual well-being, and that existential spirituality subscale measures something neglected in other religiosity and spirituality scales, but most similar here to SWBS existential well-being.

Predictive Validity. The RiTE has been successfully used to predict depressive symptoms; existential spirituality had a total effect of $−.41$, theistic was $−.15$, and ritualistic was $−.12$ (Chang et al., 2016). The RiTE has also been successfully used to directly and indirectly predict psychache, emotional/informational support, positive social interaction, and affectionate support at statistically significant levels (Dangel & Webb, 2017). Jeter and Webb (2016) successfully used the RiTE in mediation analyses predicting things such as stress, depression, and anxiety.

Attitudes Towards Transgender Individuals

To assess feelings towards transgender individuals, the 20-item Attitudes Towards Transgender Individuals scale (ATTI; Walch et al., 2012) was used (see Appendix B). Participants were asked to rate items on a five-point Likert scale, ranging from 1=*strongly agree* to 5=*strongly disagree*. Some items are reverse scored, all 20 items are summed to create a total score with a potential range of 20–100, with higher scores reflecting greater tolerance and acceptance of transgendered individuals. Walch et al. (2012) used Cronbach's alpha to determine internal reliability and consistency ($\alpha = .95$). This score indicates high internal consistency.

Content Validity. The ATTI was developed to focus on attitudinal items rather than behavioral ones because most people have exceedingly little contact with transgender individuals, leading to little opportunity for their behavior to reflect internal prejudice that may be present. The 20-item scale was the result of eliminating the 20 lowest loading items of 40 after a factor analysis. The initial 40 items were developed based on modifying 32 items in established and widely used standardized tests evaluating attitudes towards homosexual individuals, and generating 8 more to capture trans-specific issues not captured in existing scales on homonegativity.

Construct Validity. Convergent/divergent validity was assessed by Walch et al., (2012) by comparing Pearson r correlations coefficients between the ATTI and related constructs on established scales: the Genderism and Transphobia Scale (GTS; Hill & Willoughby, 2005) and the Acceptance of Stereotyping Questionnaire (AOSQ; Carter, Hall, Carney, & Rosip, 2006). Correlation with the overall GTS and GTS transphobia scores were high ($|r| = .85–88$). The ATTI has a modest correlation with the AOSQ score was found ($|r| =.38 –.32$). These results indicate that the ATTI converges with the GTS and measures a similar construct, as expected by the ATTI authors.

Discriminant Validity. Discriminant validity was evaluated by comparing the ATTI to conceptually unrelated measures: the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) and Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). Neither scale had a statistically significant correlation with the ATTI in the first sample. In a second sample the ATTI had a statistically significant, though very small, relationship with social desirability ($r = .19$). These results indicate that the ATTI is able to discriminate between targeted and unrelated constructs.

Essentialist Beliefs Regarding Gender

Essentialism was assessed with the 25-item Gender Essentialism Scale (GES; Skewes, Fine, & Haslam, 2018), seen in Appendix D. Items are rated using a 5-point Likert scale ranging from 1=*strongly disagree* to 5=*strongly agree*. Some items are reverse scored. All 25 items are summed to create a total score with a potential range of 25–125. Higher scores indicate being highly essentialist in one's thinking about gender. The scale was determined by its authors to have a high internal consistency as assessed using Cronbach's alpha ($\alpha = .90$).

Content Validity. The GES was developed based on findings that essentialist beliefs serve to justify social inequalities and predict gender-based discrimination such as sexism (e.g., Keller, 2005; Swim et al., 1995; Yzerbyt et al., 1997). The GES started with 31 items written by the second and third authors based on previous research on essentialist thinking by Rothbart and Taylor (1992) and Haslam et al. (2000). The items were made to focus on the superordinate concept of gender rather than specific beliefs of the nature of a certain gender. This decision was made by the authors to obtain broad applicability to the psychology of gender, and because it was considered more parsimonious to have a single gender essentialism scale rather than numerous scales evaluating beliefs about specific genders. Thus, questions focus on beliefs and explanations for the nature of gender differences.

Items were developed to target distinct components of essentialist thinking: the belief that gender differences are discrete (people are either masculine or feminine with little middle ground), biologically based and natural (differences between sexes are biologically determined), fixed or inalterable (differences are fixed at birth), inherent

(gender is not just learned, it is a natural core component), historically invariant (in the future, differences between men and women will remain static), and inductively potent (you can know much about a person by knowing their gender). Six of the initial items were eliminated after a factor analysis because they failed to cohere.

       Predictive Validity. Skewes et al. (2018) found gender essentialism as measured by the GES to be significantly predictive of male outrage against women seeking political power. Authors also found gender essentialism to be predictive of sex-role egalitarianism, support for discriminatory practices, and perceived fairness for gender-based treatment, even when holding social dominance orientation and political orientation constant. Ching, Xu, Chen, and Kong (2020) found gender essentialism as measured by the GES to be highly predictive of prejudice against transgender individuals (measured by the ATTI). The authors also found that gender essentialism mediated transnegative attitudes from authoritarianism, social dominance orientation, and filial piety. Şahin and Yalcinkaya (2020) found the GES to be highly useful in predicting various kinds of sexism and acceptance of gender inequality.

Procedure

       Participants completed the survey online via Qualtrics survey after being given the URL by course instructors. The survey included the ATTI, the RiTE, and the GES. The presentation of the ATTI, RiTE, and GES was counterbalanced. Participants were required to complete each question before moving onto the next question on the ATTI, RiTE, and GES, leading to complete datasets. Following this, participants completed demographics questionnaires. It took roughly 15 to 25 minutes for participants to

complete a survey. Survey data was collected by downloading it from Qualtrics in IBM

SPSS format so that it would be compatible with AMOS for IBM SPSS.

CHAPTER IV

ANALYSIS

Descriptive Statistics

Descriptive statistics will be presented and examined. For each of the individual

scales the mean, median, standard deviation, standard error of mean, and range will be

reported. These statistics will describe central tendencies and how variable the data is,

which is helpful for evaluating the degree of consistency and accuracy one could expect

from analyses including the sampled data.

Gender Differences

While gender difference in measurement scores is not related to any of the

hypotheses in the current project, it has been examined so as to assess whether or not it is

a potential confounding factor. An independent samples t-test was completed with IBM

SPSS to analyze gender differences. If there were substantially different patterns in how

one gender versus another scored on measures, it would call results from the primary

models into question.

Bivariate Correlations

To get an understanding of the basic relationships between each individual

variable, Pearson correlational information was calculated. Providing intercorrelations is

common procedure when analyzing data intended for mediation analysis (e.g., Chang et

al., 2018; Dangel & Webb, 2017; Webb et al., 2014). Thus, an intercorrelation matrix

was

created in the current investigation to assist in analyzing bivariate relationships among variables. This was accomplished with IBM SPSS.

**Answering Research Questions**

One: To What Extent Does Multidimensional Spirituality Predict Attitudes Towards Transgender Individuals?

To examine the relationship between multidimensional spirituality and attitudes towards transgender individuals, a mediation analysis was used (see Figure 4 for a brief conceptualization of mediation analysis). A structural equation model (SEM) employing maximum likelihood estimation (MLE) was used for the mediation analysis. Maximum likelihood estimation means choosing the parameter distribution (e.g., Gaussian or gamma) that best represents a set of data, and maximizing its likelihood of describing the most data-points based on mean and standard deviation. SEM using MLE gives an advantage over least squares regression estimation because it can conduct regression analysis simultaneously rather than through several sequential multiple regressions. This leads to more precise estimates, smaller standard errors, less bias, better handling of measurement error, and reduces issues regarding multicollinearity (Iacobucci, 2009). Additionally, this method for the use of latent variables, and it produces statistics necessary to assess model fitness. The program used to accomplish this was AMOS for use with IBM SPSS.

The first research question asked how much multidimensional spirituality predicts attitudes towards transgender individuals. This was investigated with a model that treats multidimensional spirituality as a latent variable created from the observed variables ritualistic, theistic, and existential spirituality (see figure 5). A latent variable is a

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Figure 4

Conceptual Diagram of Mediation

A

$$X \xrightarrow{\quad c \quad} Y$$

B
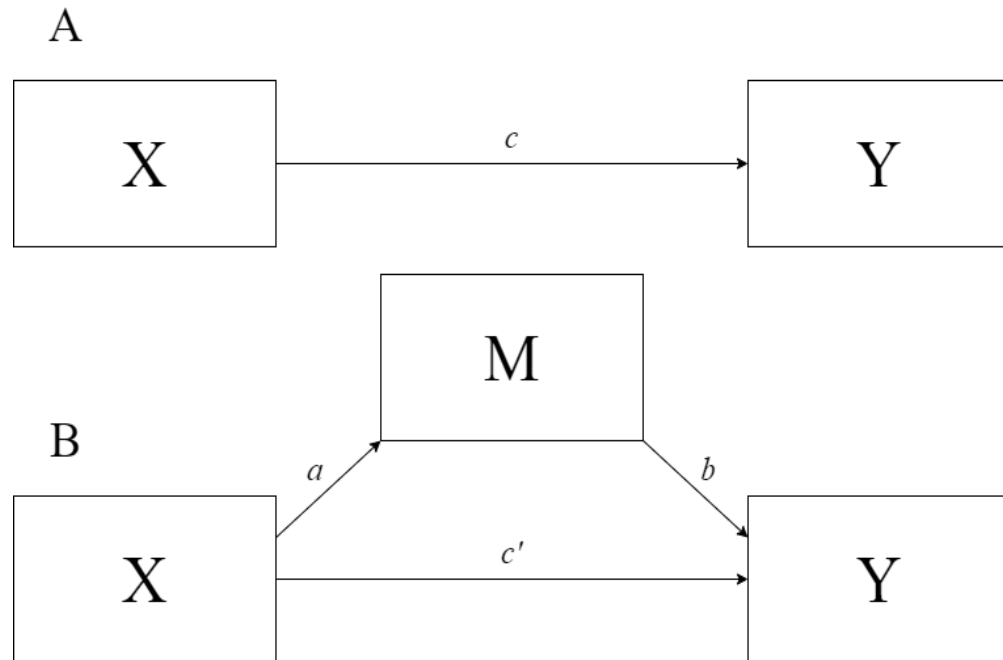
Note. [a] Model A is a conceptual diagram of a total effect, *c*, where the *X* variable affects the *Y* variable. [b] Model B is a diagram of mediation representing the indirect effect, *ab*, of *X* on *Y* through *M*, and the direct effect, *c'*, of *X* on *Y*.

Figure 5

Conceptual Mediation Model with Multidimensional Spirituality Latent Variable
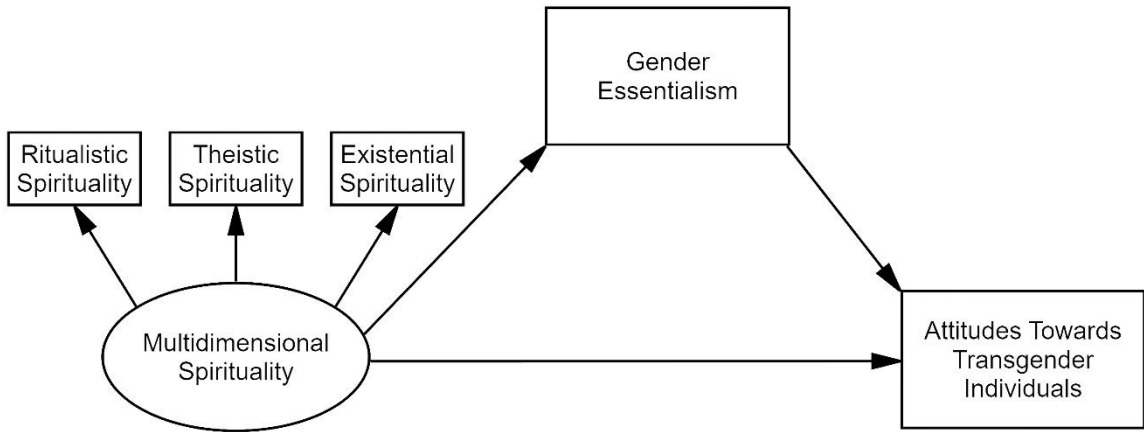
conceptual variable made up of multiple observed variables. Latent variables are conceptual variables inferred by analyzing more concrete, less ambiguous variables. This method was used to create parameter estimates that indicate the strength and direction of the relationship between multidimensional spirituality and transgender attitudes.

Two: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely Predict Attitudes Towards Transgender Individuals?

Question two asked to what extent would ritualistic, theistic, and existential spirituality predict attitudes towards transgender individuals. To investigate this, mediation models were utilized, one for each of the three RiTE subscales. Instead of the latent variable multidimensional spirituality which included all three subscales of spirituality, each subscale was treated as a latent variable (see Figure 6), with their constituent survey questions treated as observed variables. Parameter estimates were generated and analyzed to determine how well ritualistic, theistic, and existential spirituality predicted attitudes towards transgender individuals. As with all mediation models used in the current study, model fitness indices were generated upon the completion of the analyses in in AMOS software.

Three: To What Extent Does Multidimensional Spirituality Predict Gender Essentialism?

Like with question one, the mediation analyses in AMOS generated parameter estimates necessary to answer question three. Standardized and unstandardized estimates were obtained as well as significance tests. Larger effect sizes indicate more predictive power.

Figure 6

Ritualistic Spirituality Latent Variable Mediation Model
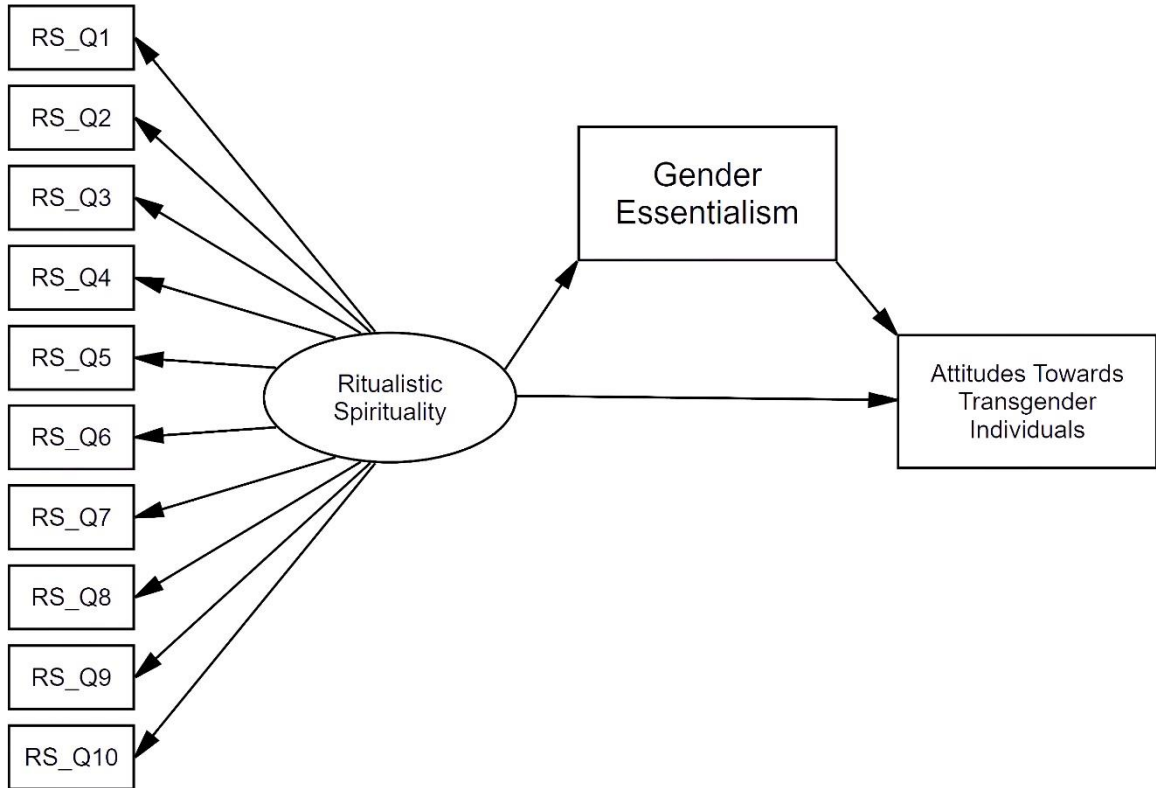
Note. This model is identical to how the mediation models for Theistic and Existential

spirituality were run.

Four: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely

Predict Gender Essentialism?

A total of four mediation analyses were conducted in the current study. Of those

four, three models are relevant to answering question four (see Figure 6 for the example

concerning ritualistic spirituality). These analyses generated parameter estimates,

including those necessary to determine to what extent ritualistic, theistic, and existential

spirituality predicted gender essentialism.

Five: To What Extent Does Gender Essentialism Predict Attitudes Towards

Transgender Individuals?

This question was answered by looking at the parameter estimates for the effect of

gender essentialism on attitudes towards transgender individuals for the four mediation

models. Effect size and significance were considered.

Six: To What Extent Does Gender Essentialism Mediate the Relationship of

Spirituality on Attitudes Towards Transgender Individuals?

Multidimensional spirituality and its three subscales were examined in mediation

models for total, direct, and indirect effects on attitudes towards transgender individuals.

This involved all four mediation models in the current study. The direct effect of

multidimensional spirituality on attitudes towards transgender individuals is the effect

attributable to it excluding the effect it has on attitudes which is attributable only

indirectly through gender essentialism. The total effect is spirituality's effect through

both of these avenues. If the indirect effect is large and the direct effect is near zero, it is

interpreted that most of the effect multidimensional spiritualty has on attitudes towards

transgender individuals is through gender essentialism rather than directly. If the opposite

effects were found, it would be interpreted that gender essentialism was unimportant in the relationship of spirituality with attitudes towards those who are transgender.

Additionally, the level of model fit was assessed by noting the Chi-square test (χ^2), Goodness-of-Fit Index (GFI), the Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). These indices were chosen based on common reporting practices (Iacobucci, 2010; Voci et al., 2017; Walch et al., 2012). Goodness of model fit refers to how well a mathematical model actually describes the observed data; how well the sample data matches what would be expected from the population. Additionally, several model fit measures include parsimony. Parsimony refers to the complexity of a model. Less complexity is generally preferred because it means fewer assumptions. A model with low complexity and high explanatory power is ideal. Acceptable values for model fit indices were chosen based on recommendations by Cangur and Ercan (2015), Carvalho and Chima (2014), and Kline, (2005).

Similar analyses were used for each subscales of multidimensional spirituality, total, direct, and indirect effects through gender essentialism were obtained and analyzed. This was done with SEM and MLE using AMOS. The level of model fit was assessed with the Chi-square, GFI, CFI, and RMSEA tests. As with the model investigating research question one, a large indirect effect indicates mediation through gender essentialism, and a low effect would mean lack of mediation. Ritualistic spirituality was hypothesized to have an especially large total effect relative to the other subscales of multidimensional spirituality.

CHAPTER V

RESULTS

Descriptive Statistics

Descriptive statistics are reported in Table 1. Among the subscales of

multidimensional spirituality, all of which are measured on the same scale, existential

spirituality has the lowest standard deviation, but the highest mean. As indicated by

mean, participants tend to score high in both existential and theistic spirituality, but are

close to the middle of possible scores regarding ritualistic spirituality. Existential is the

type of spirituality with the least variability, while theistic spirituality has the highest

variability. Theistic and ritualistic spirituality appear somewhat skewed towards higher

scores, while all other variables show little skew based on means and standard deviations.

Gender Differences

For most of the measured variables there was no statistically significant gender

difference in responses. There were, however, statistically significant gender differences

regarding responses for the ATTI, $t(160) = -2.4$, $p = .019$, and GES scales, $t(160) = 2.5$, p

$= .013$. Those who identified as male tended to be higher in gender essentialism ($M =$

81.5, $SD = 11.6$) and more negative in their attitudes towards transgender individuals (M

$= 66.7$, $SD = 2.6$) than those identifying as female ($M = 76.7$, $SD = 11.7$; $M = 74.3$, $SD =$

17.3). Only four individuals identified as something other than male or female and no

statistically meaningful parameter estimates would be able to be generated from such a

small sample (Kim & Park, 2019). Thus, those four individuals were not part of the

Table 1

Descriptive Statistics for All Measured Variables

Measure	*n*	Max.	Min.	*M*	*SE*	*SD*
GES	166	107	35	77.64	.96	12.43
Ritualistic Spirituality	166	50	12	33.89	.65	8.39
Theistic Spirituality	166	50	10	40.14	.80	10.37
Existential Spirituality	166	50	30	45.23	.32	4.14
Multidimensional Spirituality	166	148	64	119.27	1.44	18.54
ATTI	166	100	29	72.55	1.38	17.75

analysis of gender differences. It is worth restating that the sample consisted of notably more females (n = 115) than males (n = 47).

Bivariate Correlations

Bivariate correlations are reported in Table 2. Ritualistic spirituality has a statistically significant relationship with all other variables, with most effect sizes being medium (.30) to very near high (.50) according to convention (Cohen, 1988). Its two strongest relationships are with theistic spirituality and gender essentialism. Theistic spirituality also achieved a statistically significant relationship with all other variables. Conversely, existential spirituality achieves statistical significance only with theistic and ritualistic spirituality, while it does not with gender essentialism or attitudes towards transgender individuals. Moreover, these relationships tend smaller in effect size comparted to the other variables.

Research Question Questions

One: To What Extent Does Multidimensional Spirituality Predict Attitudes Towards Transgender Individuals?

The parameter estimates for multidimensional spirituality and attitudes towards transgender individuals indicated a strong relationship (see Table 3). The effect size was medium and negative in direction. Multidimensional spirituality is thus a good predictor of attitudes towards transgender individuals.

Table 2

Intercorrelations Among Individual Variables

	1	2	3	4	5	6
1. GES		.491***	.301***	.066	.405***	-.573***
2. Ritualistic Spirituality			.607***	.247**	.847***	-.484***
3. Theistic Spirituality				.301***	.901***	-.211**
4. Existential Spirituality					.503***	.095
5. Multidimensional Spirituality						-.320***
6. ATTI						

** $p < .01$, *** $p < .001$

Table 3

Mediation Model Results

Mediation Model	Parameter Estimates		*P*	*SE*
	Unstandardized	Standardized		
Multidimensional Spirituality				
Total Effect	-.95	-.48		
Indirect Effect	-.41	-.21		
Direct Effect	-.54	-.27	.001**	17
Ritualistic Spirituality				
Total Effect	-17.27	-.51		
Indirect Effect	-7.21	-.21		
Direct Effect	-10.06	-.3	.000***	2.85
Theistic Spirituality				
Total Effect	-3.57	-.2		
Indirect Effect	-2.93	-.16		
Direct Effect	-.64	-.04	.597	1.2
Existential Spirituality				
Total Effect	11.48	.18		
Indirect Effect	-.59	-.01		
Direct Effect	12.08	.19	.012*	4.81

Note. All mediation models consist of GES as the mediator and ATTI as the outcome variable.

* $p < .05$, ** $p < .01$, *** $p < .001$

Two: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely Predict Attitudes Towards Transgender Individuals?

Analyses indicated that ritualistic spirituality has a strong relationship with transnegative attitudes, and this relationship was statistically significant (see Table 3). This indicates a strong negative relationship between ritualistic spirituality and attitudes towards transgender individuals. Theistic spirituality, however, had no statistically significant relationship with attitudes towards transgender individuals. Existential spirituality had a small positive relationship with attitudes towards transgender individuals.

Three: To What Extent Does Multidimensional Spirituality Predict Gender Essentialism?

Results of SEM analysis predicting gender essentialism with multidimensional spirituality yielded statistically significant results with a medium-large effect size, $\beta = .46$, $t(4) = 4.7$, $p < .001$. This indicates that multidimensional spirituality has a considerable positive relationship with gender essentialism.

Four: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely Predict Gender Essentialism?

Ritualistic spirituality had the largest effect size with gender essentialism among subscales of multidimensional spirituality, $\beta = .50$, $t(53) = 5.15$, $p < .001$. Theistic spirituality had a moderate positive relationship with gender essentialism, $\beta = .29$, $t(53) = 3.83$, $p < .001$. Existential spirituality did not have a statistically significant relationship with gender essentialism, $\beta = .02$, $t(53) = .21$, $p < .836$.

Five: To What Extent Does Gender Essentialism Predict Attitudes Towards

Transgender Individuals?

In each of the four mediation analyses a parameter estimate for effect of gender essentialism on attitudes towards transgender individuals was obtained. The lowest effect size was in the ritualistic spirituality model, $\beta = -.42$, $t(53) = 5.15$, $p < .001$. The largest effect size was in the existential spirituality model, $\beta = -.57$, $t(53) = .21$, $p < .001$.

Six: To What Extent Does Gender Essentialism Mediate the Relationship of

Spirituality on Attitudes Towards Transgender Individuals?

Results of the mediation model indicate that multidimensional spirituality has a significant negative relationship with attitudes towards transgender individuals, and that this relationship is partially mediated by gender essentialism (see Table 3). Total effect bordered on large. Direct and indirect effects were both in-between small (.10) and medium (Cohen, 1988). All effects, direct, indirect, and total, were negative in nature. Regarding model fitness, indices revealed acceptable levels of fit, but with some issues (see Table 4). The CFI and GFI scores were into acceptable levels ($\geq .9$), but RMSEA was higher than the minimum acceptable value ($< .08$), and the Chi-square ratio was also higher than the minimum value (< 3) considered acceptable (Iacobucci, 2010; Voci et al., 2017; Walch et al., 2012). Regarding procedure, the datasets were complete, so no imputation or similar procedures were necessary for this or any other mediation model.

As for the subscales of multidimensional spirituality, results indicate that ritualistic spiritually has the largest effect size with attitudes towards transgender individuals out of all subscales of multidimensional spirituality (see Table 3). The parameter estimates for both direct and indirect pathways are medium to low-medium in

Table 4

Results of Model Fit Indices for All Mediation Models

Mediation Model	CFI	GFI	RMSEA	χ^2			
				CMIN	*DF*	*P*	*CMIN/DF*
Multidimensional Spirituality	.931	.953	.153	19.37	4	.001	4.84
Ritualistic Spirituality	.905	.857	.105	148.98	53	.000	2.81
Theistic Spirituality	.931	.806	.142	229.03	53	.000	4.32
Existential Spirituality	.687	.718	.183	346.84	53	.000	6.54

Note. Minimum acceptable values: CFI ≥ .9, GFI ≥ .9, RMSEA < .08, CMIN/DF < 3.

N = 166

effect size, and negative in direction. The total effect is large. Like with multidimensional spirituality, ritualistic spirituality is mixed regarding model fitness (see table 4). The CFI value and chi-square ratio are within suitable ranges. The RMSEA score is nearer acceptable thresholds than that of multidimensional spirituality, but it is still higher than what is considered to indicate good model fit. The GFI index is also below the acceptable threshold.

CHAPTER VI

DISCUSSION

Research Questions

One: To What Extent Does Multidimensional Spirituality Predict Attitudes Towards

Transgender Individuals?

In order to answer the questions regarding mediation, it is important to identify

that more basic relationships are also present. For gender essentialism to mediate and

help account for the relationship of spirituality on attitudes towards transgender

individuals, it is appropriate to demonstrate that spirituality in fact has a relationship with

such attitudes at all. With regard to the path analyses conducted during the current study,

the presence of these relationships was supported (see Table 3). Multidimensional

spirituality strongly predicted more negative attitudes towards transgender individuals.

This means that a relationship is present, and that multidimensional spirituality is a good

predictor of negative attitudes towards transgender individuals.

Two: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely

Predict Attitudes Towards Transgender Individuals?

In addition to investigating the relationship of overall multidimensional

spirituality with transnegative and positive attitudes, it was also a goal to know which

specific elements of multidimensional spirituality were most important in the

relationship. It was hypothesized that ritualistic spirituality would be the most predictive of transnegative attitudes. This is because it is the type of multidimensional spirituality that most resembles transnegative religious orientations like religious fundamentalism (e.g., Fisher et al., 2017; Nagoshi et al., 2019; Nagoshi et al., 2008). Results indicated that ritualistic spirituality had the strongest relationship with transnegative attitudes (see Table 3). The total and direct effects of ritualistic spirituality on transnegative attitudes were actually slightly larger than that of overall multidimensional spirituality. This means that ritualistic spirituality is a strong predictor of transnegative attitudes. Correlational data also supports this relationship, yielding a strong statistically significant negative correlation (see Table 2). Theistic spirituality was not expected to be very predictive of attitudes towards transgender individuals. This is because the aspects of transnegative religiosity that are most associated with prejudice, such as biblical literalism and gender essentialism is independent of whether or not one believes in a deity or deities (Ching et al., 2020; Cragun & Sumerau, 2015; Skewes et al., 2018; Worthen et al., 2017). Results indicate this relationship (see Table 3). No statistically significant direct effect of theistic spirituality on transgender-directed attitudes was detected. Correlational data suggests a small statistically significant correlation, but whatever effect there is appears to be insignificant when adjusting for gender essentialism.

Existential spirituality was expected to be mildly to moderately predictive of positive attitudes towards transgender individuals. This is because existential spirituality most resembles the types or religiosity and spirituality that are negatively correlated with prejudice and positively correlated to LGBTQ+ acceptance, such as Quest religiosity, agnosticism, and atheism (e.g., Bradley, 2009; Elischberger et al., 2016; Hall et al.,

2010). The presence of this relationship was supported by the results of this study (see Table 3). The relationship was statistically significant, but small. Moreover, the direct pathway accounted for nearly all of the total effect.

Three: To What Extent Does Multidimensional Spirituality Predict Gender Essentialism?

In order to serve as a mediator gender essentialism must be directly related to spirituality. If this relationship is not true, it cannot be a mediator. The prediction was that multidimensional spirituality would be a strong predictor of gender essentialism, and the results indicated that this relationship was present. The standardized parameter estimate ($\beta = .46$) is a considerable effect size. This means that a one standard deviation increase in multidimensional spirituality predicts a nearly 50% increase in gender essentialism.

Four: To What Extent Does Ritualistic, Theistic, and Existential Spirituality Uniquely Predict Gender Essentialism?

Like with transnegative attitudes, ritualistic spirituality was expected to have the strongest predictive relationship with gender essentialism. This is because the types of religiosity and spirituality that resemble ritualistic spirituality the most are those most associated with general psychological essentialism and gender essentialism (e.g., Aune & Guest, 2019; Dzubinski, 2016; Parke, 2016; Rios, 2013). Results supported this relationship ($\beta = .50$, $t(53) = 5.15$, $p < .001$). Theistic spirituality and existential spirituality were both less predictive of gender essentialism than ritualistic spirituality. Indeed, existential spirituality did not have a statistically significant predictive relationship with gender essentialism ($\beta = .02$, $t(53) = 0.21$, $p < .836$). This same pattern

was also seen with the bivariate correlational data in Table 2 which shows a non-significant relationship between existential spirituality and gender essentialism.

Five: To What Extent Does Gender Essentialism Predict Attitudes Towards Transgender Individuals?

Another prerequisite for the mediation model to successfully explain the relationship of spirituality, essentialism, and transnegative attitudes is that gender essentialism must actually be predictive of attitudes towards transgender individuals. It was expected that there would be a large negative relationship between gender essentialism and attitudes towards transgender individuals due to previous findings (Ching et al., 2020; Cragun & Sumerau, 2015; Wilton et al., 2019). Such findings indicated that inflexible binary conceptions of gender along with tendencies to over-inference based on gender categories often result in negative views of transgender individual because they violate those gender conceptions. The results of the current study indicated the presence of this relationship. In all of the models a statistically significant relationship was found between gender essentialism and transnegative attitudes, with parameter estimates ranging from parameter estimates of -.42 to -.57. This is a large effect size, meaning that gender essentialism is very predictive of transgender-directed attitudes. More specifically, as one's score on gender essentialism increases, they are increasingly transnegative in their attitudes.

Six: To What Extent Does Gender Essentialism Mediate the Relationship of Spirituality on Attitudes Towards Transgender Individuals?

Given that the assumptions in the mediation model were supported by the results of research questions one through five, it is appropriate to evaluate the overall mediation

models. For the model measuring overall multidimensional spirituality it was hypothesized that gender essentialism would partially, rather than fully, mediate the relationship with attitudes towards transgender individuals. This is because while the literature indicates both gender essentialism and multidimensional spirituality have considerable relationships with attitudes towards transgender individuals, neither had relationships approaching perfect linear correlations. Results indicated that partial mediation occurred. As reported in Table 3, a large total effect was present, with the effect size of both indirect and direct effect being meaningful. For mediation to occur it is expected that the when adjusting for the indirect effect of the mediator, the direct effect should be smaller than the total effect. If full mediation occurred the direct effect should have been near zero effect size, with the indirect effect accounting for almost of the relationship between the independent variable (multidimensional spirituality) and the dependent variable (attitudes towards transgender individuals). That did not occur.

Model fit indices (reported in Table 4) show validity in the model, but some room for improvement. Both the CFI and GFI give values of fitness securely into acceptable ranges. However, both the RMSEA and CMIN/DF values are problematic. It may be that existential spirituality loads too lowly onto multidimensional spirituality. This could be for a number of reasons, such as issues with the sample population or the factor itself being inappropriate for inclusion as a latent variable. However, the still model maintains reasonable predictive validity despite these issues.

As for the models analyzing the individual components multidimensional spirituality, it was hypothesized that ritualistic spirituality would have a larger total effect with transnegative attitudes than multidimensional spirituality overall, but that this effect

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would be mediated to roughly the same degree. A larger total effect was expected

because the types of religiosity and spirituality that most resembled ritualistic spirituality,

such as religious fundamentalism, were more related to transnegativity than those

resembling the other dimensions of multidimensional spirituality. These hypotheses were

supported by the results of the current study (see Table 3). Ritualistic spirituality had a

larger overall effect on transgender-directed attitudes than multidimensional spirituality

or any other component of it. Furthermore, the indirect pathway through gender

essentialism partially accounted for the total relationship. The occurrence of partial

mediation was supported.

Fit indices for ritualistic spirituality, like with multidimensional spirituality,

indicate validity but also room for improvement (see Table 4). The CFI is acceptable, but

the GFI doesn't quite reach desired values. The RMSEA is the closest out of all four

models to acceptable ranges, but still falls somewhat short. As for the CMIN/DF ratio, it

is within acceptable ranges. Like with multidimensional spirituality, this could be an

issue with some of the lower-loading factors on ritualistic spirituality or an anomaly with

the sample. Regardless, the model is still effective at explaining its mediation

relationship.

Full mediation appears to have occurred with theistic spirituality. Bivariate

correlational data in Table 2 indicates that theistic spirituality indeed has a statistically

significant modest relationship with transnegative attitudes. However, when accounting

for the indirect effect through gender essentialism in the mediation model, the direct

effect drops to non-significant levels (see Table 3). Thus, the transnegative relationship

theistic spirituality has can be explained as fully mediated by gender essentialism. Model

fitness for theistic spirituality mediation model is more problematic than that of multidimensional or ritualistic spirituality (see Table 4). While it satisfies criteria for the CFI, the other three indices give reason for concern. Any conclusions one may make with this particular model should be taken with a grain of salt.

The last model is that of existential spirituality. The expectation was that it would be positively predictive of attitudes towards transgender individuals, but it was uncertain whether this would be mediated in any way by gender essentialism. Results in Table 3 indicate that while existential spirituality is significantly predictive of transpositivity, gender essentialism is insignificant in the relationship. And so, this model failed to support mediation. Model fitness is very problematic, as none of the fit indices reported in Table 4 are very close to being acceptable. The largest problem is that many individual items load very poorly onto existential spirituality. For example, the lowest item, "There is a right way to treat other people", loaded onto existential spirituality latent with a score of only .31. Such a low loading indicates that the item may need to be removed in research going forward. Only one other item loaded below .4, and may also need to be removed. Because of lack of model fitness, it is a dubious task to draw confident conclusions from the existential spirituality mediation model.

Implications

The results of the current study strongly supported most hypotheses. Overall multidimensional spirituality robustly predicts attitudes towards transgender individuals, and gender essentialism seems to partially mediate this relationship. Ritualistic spirituality in particular was found to strongly predict transnegative attitudes, and gender essentialism was a powerful mediating factor in this relationship. The implications of

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these finding are that modes of spirituality which emphasize tradition, scriptural authority and inerrancy, and ritual displays of piety may directly affect attitudes towards transgender individuals, but also indirectly through gender essentialism. It helps to confirm not only previous findings that ritualistic forms of spirituality are related to transnegativity, but it gives one of the likely mechanisms through which this effect is exerted. This is important because it may help to direct attention at the aspects of certain forms of spirituality which could help reduce transnegativity. In this case, results imply that theologians and religious leaders would benefit from focusing on codified doctrines and traditions that have historically promoted gender essentialism. If these forms of ritualistic spirituality can be reinterpreted, it would likely reduce gender essentialism and thereby transnegativity.

The current study has persuasively supported gender essentialism as having a strong predictive relationship with prejudice towards trans people, which has supplemented the somewhat sparse existing literature on the topic. The implications for this are important because, as previous research indicates, targeting essentialism can reduce prejudice (e.g., Şahin & Soylu Yalcinkaya, 2020). If mere exposure to scientific facts about gender similarities can reduce essentialism, many other methods of reducing gender essentialism could be devised.

Theistic spirituality, whether or not an individual believes in one or more gods or universal spirit, appears to be only weakly related to attitudes towards transgender individuals or gender essentialism. Correlation analysis found modest, though present, relationships. However, mediation analysis found no direct effect of theistic spirituality on transgender-directed attitudes. Any relationship that may exist appears to be primarily

through gender essentialism. This means that one could have transnegative attitudes and believe in a deity, or be a vigorous transgender ally and believe in a deity. The opposite could also be true for both examples. Mere theistic spirituality does not seem to directly support or impede transnegative or positive attitudes. That said, theistic spirituality has a lot of covariance with ritualistic spirituality, and it may be this relationship where theistic spirituality obtains its fully gender essentialism-mediated indirect relationship with trans prejudice. A hypothesis for the explanation for full mediation could be that theistic spirituality moderates the partially gender essentialism-mediated relationship of ritualistic spirituality with transnegative attitudes. That is, for a person low in ritualistic spirituality, high theistic spirituality may not affect their attitudes towards the transgender community very much at all. However, for a person high in ritualistic spirituality, high theistic spirituality may increase their gender essentialist convictions or proclivities, thereby affecting transnegativity. This kind of relationship is called moderated mediation.

With regard to existential spirituality, results demonstrated that it had a modest positive relationship with attitudes regarding transgender people, although this relationship was not mediated by gender essentialism. Even this relationship is uncertain though. With regard to the bivariate correlational data in Table 2, existential spirituality did not even achieve a significant correlation with attitudes towards transgender individuals. While its usefulness with regards to the other forms of spirituality and their relationship through gender essentialism with transnegativity is uncertain, the result still tells us something. It indicates that in the search to find out what types of religiosity and spirituality are most associated with transgender-directed prejudice, existential

spirituality is likely not among them. It may yet be related to positive feelings towards transgender individuals, but that will require further investigation.

Limitations

A limitation of the current study is that regarding levels of model fit. All mediation models to greater or lesser degrees exhibited issues regarding model fitness. Factor loadings in most mediation models were somewhat weaker and more variable than the results reported by the authors of the original RiTE scale. This could be related to sample size and differences in sample population, or a number of other factors. However, in the case of the hypothesis most consequential and important to the current study, fitness indices indicated overall acceptable levels and decent validity. In most cases, correlational data further supported the variables that were found to be good predictors of other variables.

Another limitation relates to whether gender essentialism was justifiably treated as a mediator to transnegative attitudes. The decision to conceptualize the model this way was based on things such as trends of transpositivity from atheists (e.g., Elischberger et al., 2016; Hall et al., 2010) and transnegativity from fundamentalists (e.g., Elischberger et al., 2018; Worthen et al., 2017). While correlation does not determine causation, a causal relationship usually includes a correlation, and these trends between the non-religious and fundamentalists support a correlation. Additional reasoning was about LGBTQ+ individuals finding their religion and its doctrines in direct conflict with their orientation, and their transition to being more self-accepting after the transition from religion (Beagan & Hattie, 2015). This transition and consequent improvement in LGBTQ+ attitudes indicate some level of temporal precedence for spirituality relative to LGBTQ+ attitudes.

Support for temporal precedence relating to gender essentialism was derived from King (2017) finding that women who converted to a strict ritualistic form of Islam became more gender essentialist. Taken altogether, this data indicates that both spiritual orientation and gender essentialism can conceptually be treated as independent variables to transnegativity, but that spiritual orientation can also be treated as an independent variable predicting gender essentialism. This is where the mediation model is derived.

The weakness is that actual scientific lab manipulation of these things is not ethically possible, so the next best thing would be a largescale long term longitudinal study tracking non-religious people who become religious and vice-versa, and their attitudes towards transgender individuals throughout this transition. I could find no studies like this. Thus, I had to rely on inferential reasoning with regard to a small amount of data. That said, the data I found does in fact point in a direction supportive of the conception used in this study, and the results of the current study bolstered rather than served to disconfirm this conception.

Another potential concern involves sex differences. The current study tested for sex differences, and while no statistically significant differences were detected among most variables, there was differences with regard to gender essentialism and transnegative attitudes. This was not unexpected. In previous research men tend to be more homonegative and sexist than women, suggesting this would be the case for transnegativity and a variable as related to it as gender essentialism. This is not expected to have been a meaningfully confounding variable for the current study because of the small size of these differences. However, it is worth mentioning.

Finally, the current study was conducted on an overwhelmingly Christian sample, and so it raises questions as to the generalizability of results to other religious orientations. Due to religion and spirituality being a primary topic in this study, one would want a more diverse sample in order to maximize the amount of generalizability to other religions. However, the results of the current study still give us information about a diverse denominational body of Christians, and Christianity is the largest religion in the United States as well as one of the largest in the world. Thus, the results here are nonetheless generalizable to a very large body of people.

Future Directions

The current study has contributed a great deal to several disciplines, including human rights and prejudice, cognitive psychology, and studies on religion. In particular, much was learned about what types of religion and spirituality relate to transnegative attitudes, and the mechanism behind it. It was found that existential spirituality was not necessarily important to prejudice towards the transgender community. However, a future direction is suggested that theistic spirituality be considered as a moderator of the mediation relationship with ritualistic spirituality and transnegative attitudes as mediated by gender essentialism. Investigating this could potentially give a more complete understanding of the mechanisms behind those relationships and indicate other ways to mitigate transnegativity.

With regards to using multidimensional spirituality, this study contributes data on it as a conceptual framework and the RiTE as a way of measuring it. Multidimensional spirituality has been useful here to tease apart and operationalize the forms of religion and spirituality most related to transgender-directed prejudice. The RiTE is a fairly new

measure, and the current study provided more data regarding its use. However, it was found that existential spirituality as measured by the RiTE may still be considered a work in progress. It is important as a concept, and future research should work to fine-tune it because it may help us understand the type of spirituality that may actually be negatively related to prejudice of many types. Knowing more about prejudice and how it works enables better methods of addressing and mitigating it.

Final Thoughts and Conclusions

Results of the analyses reported here support several conclusions. Gender essentialism is important and relevant to transnegativity. Additionally, ritualistic spirituality is highly predictive of both gender essentialism and negative attitudes towards transgender individuals. These findings indicate paths forward regarding understanding and mitigating prejudice towards the vulnerable transgender community.

Prejudice against transgender individuals is a topic of importance at the current time. There is increasing visibility of transgender issues in the public sphere such as the public transitions of celebrities like Elliot Page, Caitlyn Jenner, and Chaz Bono. Moreover, many laws and policies have been passed or proposed over the last several years aimed at restricting the rights of transgender individuals (Pomeranz, 2018). Most recently, Mississippi and several other states have put forth or passed policies limiting the ability of trans teens in school to compete in sports of the gender they identify with (Avery, 2021). A substantial amount of evidence indicates that religious and/or spiritual orientations—particularly conservative, fundamentalist, and/or orthodox religion—are a closely related to transnegativity (e.g., Anzani et al., 2018; Castle, 2019; Elischberger et al., 2018; Fisher et al., 2017; Loo, 2015; Worthen et al., 2017). Gender essentialism is

known to be highly related to this prejudice as well (e.g., Atamer, 2014; Callahan &

Zukowski, 2019; Ching et al., 2020; Haslam & Levy, 2006). These phenomena exist

across multiple cultures and geographic locations, and they further appear related. By

understanding the underlying mechanisms of trans prejudice we can better devise ways of

changing minds and changing public policy.

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APPENDIX

Appendix A

Demographic questions.

Demographic Questions

Circle answer or fill in blank	
Gender:	A. Male B. Female C. Other, please specify _____ D. Prefer not to answer
Age:	_____
Year in School	A. Freshman B. Sophomore C. Junior D. Senior
Ethnicity:	A. White/Caucasion B. Black or African American C. Asian D. Hispanic, Latino, or Spanish Origin E. Middle-Eastern or North African F. Other, please specify _____
Political Inclination:	A. Democrat B. Independent leaning Democrat C. Republican D. Independent leaning Republican E. Non-political
Religious Affiliation:	A. Christianity B. Islam C. Hinduism D. Buddhism E. Atheism F. Judaism G. Agnosticism H. Other_____
If Christian, what persuasion or denomination? Circle all that apply.	
	A. Baptist B. Presbyterian C. Church of Christ D. Mormon E. Non-denominational F. Evangelical G. Fundamentalist, H. Catholic I. Orthodox J. Other _____

Attitudes Toward Transgender Individuals Scale (ATTI) by Walch et al. (2012). Items in

bold are reverse scored.

Attitudes on Transgender Individuals

Definition: Transgender individuals are those whose gender identity (sense of oneself as a man, a woman, or neither) or gender expression (expression of oneself as male, female, or neither in behavior, manner, and/or dress) differs from conventional expectations for their physical sex. Transgender individuals include pre-operative, post-operative, and non-operative transsexuals who feel that they were born into the wrong physical sex as well as those who cross-dress to express an inner cross-gender identity.	On a scale of 1 to 5	1 = Strongly _Agree_	5 = Strongly **Disagree**
1	**It would be beneficial to society to recognize transgenderism as normal.**	1 2 3 4 5
2	Transgendered individuals should not be allowed to work with children.	1 2 3 4 5
3	Transgenderism is immoral.	1 2 3 4 5
4	All transgender bars should be closed down.	1 2 3 4 5
5	**Transgender individuals are a viable part of our society.**	1 2 3 4 5
6	Transgenderism is a sin.	1 2 3 4 5
7	Transgenderism endangers the institution of the family.	1 2 3 4 5
8	**Transgendered individuals should be accepted completely into our society.**	1 2 3 4 5
9	Transgendered individuals should be barred from the teaching profession.	1 2 3 4 5
10	**There should be no restrictions on transgenderism.**	1 2 3 4 5
11	I avoid transgender individuals whenever possible.	1 2 3 4 5
12	**I would feel comfortable working closely with a transgender individual.**	1 2 3 4 5
13	**I would enjoy attending social functions at which transgender individuals were present.**	1 2 3 4 5
14	**I would feel comfortable if I learned that my neighbor was a transgender individual.**	1 2 3 4 5
15	Transgender individuals should not be allowed to cross dress in public.	1 2 3 4 5
16	**I would like to have friends who are transgender individuals.**	1 2 3 4 5
17	**I would feel comfortable if I learned that my best friend was a transgender individual.**	1 2 3 4 5
18	I would feel uncomfortable if a close family member became romantically involved with a transgender individual.	1 2 3 4 5
19	Transgender individuals are really just closeted gays.	1 2 3 4 5
20	Romantic partners of transgender individuals should seek psychological treatment.	1 2 3 4 5

Webb and colleagues (2014) RiTE spirituality scale.

Spirituality

	On a scale of 1 to 5	1 = Strongly _Disagree_ 5 = Strongly _Agree_
1	I regularly perform traditional spiritual practices.	**1 2 3 4 5**
2	I observe or follow the rules of a formal belief system.	**1 2 3 4 5**
3	I regularly attend organized worship services.	**1 2 3 4 5**
4	I feel faith-related rituals and/or practices are very important.	**1 2 3 4 5**
5	I set aside time to contemplate issues related to religious or spiritual teachings.	**1 2 3 4 5**
6	I regularly meditate as I have been taught in my faith.	**1 2 3 4 5**
7	I feel good after I attend organized worship services.	**1 2 3 4 5**
8	Observing or following traditions is a very important part of spirituality or faith.	**1 2 3 4 5**
9	It is important to tell others about one's own spiritual path in order to try and convince them of the correct path.	**1 2 3 4 5**
10	I would not be good in the judgment of a deity or deities if I did not practice my faith as prescribed.	**1 2 3 4 5**
11	A deity or deities was/were responsible for the creation of the universe.	**1 2 3 4 5**
12	The world was created by a deity or deities.	**1 2 3 4 5**
13	I believe in a deity or deities.	**1 2 3 4 5**
14	I believe in a deity or deities who know/s me.	**1 2 3 4 5**
15	A deity or deities is/are at some time going to judge the rightness or wrongness of the actions of individuals.	**1 2 3 4 5**
16	I feel connected to a deity or deities.	**1 2 3 4 5**
17	I feel belief in a deity or deities is very important.	**1 2 3 4 5**
18	I believe in a deity or deities who has/have a purpose/plan for my life.	**1 2 3 4 5**
19	I believe in a deity or deities who has/have power to control world events.	**1 2 3 4 5**
20	It is important to acknowledge the existence or reality of a deity or deities.	**1 2 3 4 5**
21	I feel that helping others is very important.	**1 2 3 4 5**
22	Helping other people is very important.	**1 2 3 4 5**
23	I feel that understanding oneself is very important.	**1 2 3 4 5**
24	I believe that finding meaning and purpose in life is very important.	**1 2 3 4 5**
25	I feel that taking care of nature is very important.	**1 2 3 4 5**
26	Human life is a beautiful thing.	**1 2 3 4 5**
27	There is a right way to treat other people.	**1 2 3 4 5**
28	There is a wrong way to treat other people.	**1 2 3 4 5**
29	It is the responsibility of each person to find their purpose in life.	**1 2 3 4 5**
30	I see life as a journey toward fulfillment.	**1 2 3 4 5**

Appendix D

Gender Essentialism Scale (GES) by Skewes, Fine, and Haslam (2018). Reverse scored items are in bold.

	Attitudes On Gender	
	On a scale of 1 to 5	1 = *Strongly Disagree* 5 = *Strongly Agree*
1	Differences between women and men's personalities are in their DNA.	1 2 3 4 5
2	Men and women have different abilities.	1 2 3 4 5
3	Genes are at the root of differences between the sexes.	1 2 3 4 5
4	**People generally over-estimate how much sex differences in behavior are biologically based.**	1 2 3 4 5
5	Differences between men and women in behavior and personality are largely determined by genetic predisposition.	1 2 3 4 5
6	Fathers have to learn what mothers are able to do naturally.	1 2 3 4 5
7	People tend to be either masculine or feminine: there's not much middle ground.	1 2 3 4 5
8	Wherever you go in the world, men and women differ from one another in the same kinds of ways.	1 2 3 4 5
9	**Members of each gender have many things in common.**	1 2 3 4 5
10	It is possible to know about many aspects of a person once you learn their gender.	1 2 3 4 5
11	Trying to make boys and girls have similar likes and dislikes is pointless.	1 2 3 4 5
12	In 100 years, society will think of the differences between women and men in much the same way as today.	1 2 3 4 5
13	Women and men are fundamentally different.	1 2 3 4 5
14	*Women are innately more nurturing than men.*	1 2 3 4 5
15	**Knowing that someone is a man tells you very little about what the person is like.**	1 2 3 4 5
16	**Men and women's personalities are more or less the same.**	1 2 3 4 5
17	Men and women differ in numerous ways.	1 2 3 4 5
18	Their underlying nature makes it difficult for men to learn to behave more like women.	1 2 3 4 5
19	Differences between boys and girls are fixed at birth.	1 2 3 4 5
20	Mothers are naturally more sensitive to a baby's feelings than fathers are.	1 2 3 4 5
21	Men and women have different personality types.	1 2 3 4 5
22	Male and female brains probably work in very different ways.	1 2 3 4 5
23	Differences between men and women are primarily determined by biology.	1 2 3 4 5
24	Women are naturally less aggressive than men.	1 2 3 4 5
25	**Upbringing by parents and the social environment have far greater significance for the development of sex differences than inborn differences in female and male brains.**	1 2 3 4 5