# Religion, Just World Beliefs and Perspectives on Wealth Inequality

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#### Abstract

Religion exists in every continent across the globe and has been a topic of philosophical and scientific interest for years. There is, however, little conclusive research regarding the ideological functions of religious belief. The present research aims to provide insight into these functions by exploring the thesis that religion encourages just world beliefs and consequently influences poverty attributions and views on wealth. Data was collected from 359 New Zealanders via online surveys which measured identification with organised religion, fundamentalist religious beliefs, just world beliefs, attributions for the causes of poverty and views on equality. Spearman's correlational analysis showed identification with organised religion and fundamentalist religious beliefs were associated with belief in a just world, internal attributions for the causes of poverty and opposition to equality. Neither identification with organised religion nor religious fundamentalism were associated with belief in a just social system. Hierarchical linear regression analyses showed that, (a) relationships between religious identification and just world beliefs, poverty attributions and perspectives on wealth equality were all entirely accounted for by religious fundamentalism; (b) belief in a just world partially accounted for relationships between religious fundamentalism, poverty attributions and views on equality, however, religious fundamentalism predicted these variables independent of belief in a just world; (c) poverty attributions entirely accounted for relationships between religious fundamentalism, belief in a just world and perspectives on equality. These findings suggest that religious fundamentalism is responsible for relationships between religion, just world beliefs, poverty attributions and perspectives on equality. Relationships between religion, attributions for the causes of poverty and perspectives on equality cannot be attributed entirely to just world beliefs. Attributions for the causes of poverty are responsible for relationships between religious fundamentalism, just world beliefs and opposition to equality.

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**Attestation of Authorship** 

I hereby declare that this submission is my own work and that, to the best of my

knowledge and belief, it contains no material previously published or written by another

person (except where explicitly defined in the acknowledgements), nor material which to a

substantial extent has been submitted for the award of any other degree or diploma of a

university or other institution of higher learning.

Signed: Daniel Jochems

Date: March 4, 2022

# **Ethics Approval**

This research study was granted ethics approval from Auckland University of Technology Ethics

Committee (AUTEC) on 28 August 2020 under the title 'Religion, Belief in a Just World and

Perspectives on Wealth Inequality' (reference # 20/219).

## Religion, Just World Beliefs and Perspectives on Wealth Inequality.

Religion is a phenomenon that appears in every continent across the globe (Hackett et al., 2012) and has written evidence dating back as far as writing itself (Spar, 2004), yet religion is no obsolete relic of the past. In 2012, an analysis of more than 2500 censuses found that approximately 84% of the world's population have religious affiliation(Hackett et al., 2012). In the New Zealand population 44.7% have at least one religious' affiliation(Stats NZ, 2018). Although comparatively less prevalent, this represents almost half the New Zealand population. The universal prevalence, the assertions regarding what is true of the world and the complete lack of definitive evidence has made religion a topic of scientific and philosophical interest for years.

Psychological research aimed at making sense of religion suggests that it's pervasiveness is due to an evolutionary by-product of psychological adaptations that allow the human species to perceive mind and infer agency to entities(Atran & Norenzayan, 2004; Boyer, 2001; Dennett, 2006). These approaches to the study of religion provide an explanation for the prevalence of religious and spiritual belief but say little about the effect which religion has on ideological beliefs and in turn, behaviour. Studying the psychological effects of religious belief will contribute to an understanding of the influence that religion has on human behaviour and societies of the past, present and future. It is undeniable that religion has an impact over adherent's beliefs and behaviour. This can be attributed to the rigid descriptions of the universe and how humans should behave, which are present in religious texts. The proclamations of these texts are further supported by the belief in an ever-present god or universal system (such as reincarnation or an afterlife) that has the ability to induce both positive and negative repercussions for beliefs and behaviour (Norenzayan & Shariff, 2008; Shariff & Norenzayan, 2007).

One particular notion that is implied and stated explicitly in the texts of every major religion is that the universe is inherently just (Jost et al., 2014; Weber, 1993). The impact that this notion has on religious adherents provides the premise of the present research. One would expect the presence of themes and claims of a just world which are present in religious holy texts to increase just world beliefs among the religious. Previous research supports this assumption by showing correlations between religion and just world beliefs (Dalbert & Katona-Sallay, 1996; Jost et al., 2014; Kaplan, 2012; Kunst, Bjorck, & Tan, 2000; Rubin & Peplau, 1975).

If religious belief does indeed serve to increase just world beliefs, it would be expected that these beliefs would impact religious adherents' world view and ideological beliefs. This prediction is supported by research which has shown that religion and just world beliefs are correlated with many of the same outcomes. These include, increased happiness, life satisfaction and mental wellbeing (Begue & Bastounis, 2003; Diener, Tay, & Myers, 2011; Dzuka & Dalbert, 2002; Hoverd & Sibley, 2013; Khera, Harvey, & Callan, 2014; Otto, Boos, Dalbert, Schöps, & Hoyer, 2006). However, not all out outcomes associated with just world beliefs and religiousity are unambiguously positive. Research has shown that the need to defend just world beliefs can cause those who hold these beliefs to dismiss and rationalize injustices (Dalbert, 2009; Jost, Banaji, & Nosek, 2004; Lerner, 1980). Relationships between just world beliefs, religion and outcomes such as victim blaming, denial of structural causes of poverty and opposition to equality (Furnham & Gunter, 1984; Hinojosa & Park, 2004; Jost et al., 2014; Kirchmaier, Prüfer, & Trautmann, 2018) may be product of this need to defend just world beliefs.

People are constantly confronted with injustices, and one that is undeniable is wealth inequality. In New Zealand the richest 1% hold 28% of the wealth and the poorest 30% hold only 1% (Shorrocks, Davies, & Lluberas, 2017). If religion does increase just world beliefs and consequently cause adherents to rationalize and dismiss injustices, the religious may

justify wealth inequality by attributing poverty to the fault of those suffering and therefore oppose efforts to increase wealth equality.

The present research will investigate the thesis that religion encourages just world beliefs and consequently influences poverty attributions and views on wealth. This will be done by measuring identification with organised religion, fundamentalist religious beliefs, just world beliefs, attributions for the causes of poverty and perspectives on equality.

#### Literature Review

## Religious Themes and Claims of a Just World

The notion that the universe is inherently just is implied and stated explicitly in the texts of every major religion (Jost et al., 2014; Weber, 1993). However, it is undeniable that evil and suffering are present in the universe, and this poses a problem for religious claims of this nature. To provide a solution to this problem, religious texts do not deny the presence of evil and suffering, rather, they construe it in a manner that is consistent with the inherently just nature in which they depict the universe.

Assertions of the existence of an afterlife where earthly injustices are settled, is a common explanation for the evil, suffering and injustices of the world in which humans live. For example, the Christian tradition asserts that when humans die, their soul will live on infinitely in a state which is determined by their behaviour on earth - the virtuous are compensated in heaven whereas the malicious are punished in hell. The inherent fairness of the universe is further reiterated by describing earthly experience as insignificant in comparison to the compensation or punishment experienced in the afterlife: "And after you have suffered a little while, the God of all grace, who has called you to his eternal glory in Christ, will himself restore, confirm, strengthen, and establish you" (1 Peter 5:10, English Standard Version). The Hindu tradition also asserts that after death people will experience the ultimate settling of scores. In this tradition, souls are reincarnated here on earth in a manner determined by their behaviour. This tradition not only assures adherents that ultimately justice will be served but that they deserve their current life (due to behaviours in a previous life). Assurance of a justified social order here on earth is not limited to the Hindu tradition, the Christian bible also contains many proclamations and running themes which attempt to justify and legitimise the social order here on earth. These themes are illustrated in the following quote from the bible; "Be not deceived; God is not mocked: for whatsoever a

man soweth, that shall he also reap" (Galations 6:7, English Standard Version). Religious justification of the current social order goes beyond these running themes of an inherently fair universe. Religious texts are also known to explicitly state that various aspects of the existing social order are legitimate, just and should be maintained. The New Testament of the Christian tradition explicitly states that political authorities are legitimate and should be obeyed; "Everyone must submit himself to the governing authorities, for there is no authority except that which God has established", "The authorities that exist have been established by God", "Consequently, he who rebels against the authority is rebelling against what God has instituted, and those who do so will bring judgment on themselves" (Romans 13: New International Version). As well as legitimising political authorities, the Christian tradition also attempts to justify specific inequalities of traditional social orders including slavery and sexism. Take the following quotes from the New and Old Testament for example, "As for your male and female slaves whom you may have: you may buy male and female slaves from among the nations that are around you. You may also buy from among the strangers who sojourn with you and their clans that are with you, who have been born in your land, and they may be your property. You may bequeath them to your sons after you to inherit as a possession forever. You may make slaves of them, but over your brothers the people of Israel you shall not rule, one over another ruthlessly." (Leviticus 25:44-46, English Standard Version), "Wives, submit yourselves unto your own husbands, as unto the Lord. For the husband is the head of the wife, even as Christ is the head of the church . . . as the church is subject unto Christ, so let the wives be to their husbands in everything:". (Ephesians 5:22-24, King James Version).

The presence of themes and proclamations of an inherently just world across the range of major religious texts does not provide evidence that all religious texts hold indistinguishable ideological implications and influence adherent's behaviour in the same way. The contents of religious texts vary significantly and contain a wide variety of different

ideological implications. The extent to which religious texts endorse world justifying proclamations and themes also varies across religious doctrines (Weber, 1993). However, this does not render the presence of world justifying themes and proclamations trivial. The consistent presence of these ideological claims across religious texts that vary significantly in both content and origin suggests that just world beliefs may be a common aspect of religion. If just world beliefs are indeed imperative to religion: this could provide researchers with an understanding of religion's core functions and contribute to a further understanding of its enduring prevalence.

The exploration of religion's world justifying nature and the impact that it has on adherents is by no means a novel investigation. Most famously, Karl Marx described religion as the opium of the people in his 1843 (published in 1970) Critique of Hegel's 'Philosophy Of Right': "Religious suffering is, at one and the same time, the expression of real suffering and a protest against real suffering. Religion is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people." (Marx, 1970). When drawing this analogy, Marx is arguing that religion acts in a similar manner to an opiate, relieving suffering through positive illusions rather than addressing the cause of said suffering. Marx believed that the positive illusions provided by religion served to legitimate the status quo and therefore hold people back from addressing injustices and inequality. Since the time of Marx, many studies have looked into the system justifying nature of religion and the impact it has on ideological beliefs and behaviour.

## Relationships Between Religion and Just World Beliefs

Among findings that support the claim that religious texts serve to increase just world beliefs are studies that show correlations between religion and just world beliefs. For example, Rubin and Peplau (1975) found that synagogue attendance was positively

correlated with belief that the world is fair place. Multiple studies that measured self-reported religiosity and belief in a just world also reported positive correlations between these two constructs(Dalbert & Katona-Sallay, 1996; Kaplan, 2012; Kunst et al., 2000). A study by Jost et al. (2014) demonstrated that religion was correlated with a range of system justifying belief systems including belief in a just world and system justification.

#### Belief in a Just World

Belief in a just world is a term developed by Melvin Lerner (1980). Belief in a just world refers to the extent which people believe the world is an inherently fair place. Lerner argued that belief in a just world is a universal human belief that is necessary to mitigate the stress and threat of living in an unpredictable, uncontrollable and unjust world. Although he believed it to be a fundamental belief, Lerner appreciated that belief in a just world varies significantly among individuals, and he advocated for and conducted multiple studies exploring these individual differences. Lerner believed that belief in a just world protects individuals' subjective wellbeing by giving a sense of understanding, a sense of control and a psychological defence against the risk undeserved negative outcomes. Multiple studies have supported this thesis by showing that belief in a just world predicts various measures of psychological wellbeing, including, increased life satisfaction(Dzuka & Dalbert, 2002), fewer symptoms of depression(Otto et al., 2006), greater purpose in life(Begue & Bastounis, 2003) and less stress (Khera et al., 2014). According to Lerner (1980) when confronted with injustices people high in belief in a just world feel the need to defend this belief by dismissing injustices or attempting to rationalize them by blaming victims. There is extensive literature supporting this theory (for reviews see (Dalbert, 2009) (Jost et al., 2004)) including a study by Furnham and Gunter (1984) which found that those high in belief in a just world were more likely to blame the poor for their circumstances.

## System Justification

The system justification construct that was shown to be associated with religion by Jost et al. (2014) was developed by Kay and Jost (2003). This construct is similar to belief in a just world, however, rather than referring to the fairness of the entire world, this construct refers to the extent which one believes the prevailing social system in their country is fair. This construct is result of a line of literature which began with Jost and Banaji (1994). This research posits that people have a natural tendency to believe the prevailing social system of their country is just and legitimate. Research by Jost and Hunyady (2005) has shown the extent to which people hold system justifying ideologies varies among individuals and can be predicted by both dispositional and situational antecedents. Dispositional predictors shown by Jost and Hunyady (2005) include, need for closure and lack of openness to experience; situational predictors include, mortality salience and system threat. System justification has been shown to be associated with outcomes which are similar to, and common with belief in a just world. These include rationalisation of the status quo, less support of social change and less support for wealth redistribution (Jost et al., 2004; Jost & Hunyady, 2005).

#### **Outcomes Associated with Religion and Just World Beliefs**

#### Subjective Wellbeing

If religion does serve to legitimise the status quo one would expect religion to show similar correlates and outcomes to belief in a just world and system justification. Indeed, data show that religious people report greater subjective wellbeing. Findings of this nature include (but are not limited to), results from the World Happiness Report by Helliwell, Layard, and Sachs (2012) that show that religion is positively correlated with wellbeing and a meta-analysis by Hackney and Sanders (2003) that found a significant positive relationship between religiosity and mental health. The implications of this data are illuminated with the

support of research which focuses specifically on the subjective relief provided by religion. Diener et al. (2011) found that religion is most prominent among those who are the most objectively deprived and when controlling for objective deprivation, religious people tended to have higher subjective wellbeing than their non-religious counterparts. Diener et al. (2011) showed this with a United States sample and also with an international sample. A similar study by Hoverd and Sibley (2013) with a sample of 5,984 New Zealanders produced similar results. Hoverd and Sibleys' study was designed to investigate the protective buffer from poor wellbeing which is provided by religion. Results showed that those who live in deprived neighbourhoods generally presented lower subjective wellbeing than those living in affluent neighbourhoods. Among participants living in deprived neighbourhoods those who were religious presented higher subjective wellbeing than their non-religious counterparts. This implies that religion can provide a buffer from the adverse effects that deprivation has on subjective wellbeing. This increase in subjective wellbeing among the religious was not present in participants from affluent neighbourhoods, those from affluent neighbourhoods generally reported similar levels of subjective wellbeing regardless of religion. There are many possible alternate explanations of the buffering effect religion has on adherent's subjective wellbeing including social support and feeling respected (Diener et al., 2011). However, it is possible that increased belief in a just world is at least partially responsible for this effect by providing a sense of understanding, a sense of control and a psychological defence against the risk undeserved negative outcomes.

#### Psychological Defences when Confronted with Injustice

If religion does defend subjective wellbeing through increased just world beliefs, when confronted with injustices, those who are highly religious would engage in similar psychological defences as those high in just world beliefs (dismissal and rationalisation of injustices). Evidence which shows that this may be the case, includes a correlation between religion and political conservatism that has been shown and discussed in research for

decades (Altemeyer & Hunsberger, 1992; Antonenko Young, Willer, & Keltner, 2013). Religion has been shown to predict conservative stand points on specific political issues including same sex marriage (Walls, 2010), abortion (Harris & Mills, 1985) and wealth redistribution policies (Stegmueller, 2013). The present study is particularly focused on the effect that religion has on peoples' understanding of wealth inequality. Global and domestic data regarding wealth inequality reveal that it is one of the greatest injustices facing humankind. Combined data from China, Europe, and the United States show that the wealthiest 1% of this population hold 33% of the wealth (increased from 28% in 1980) while the poorest 75% hold only 10%(Zucman, 2019), domestic data show equally alarming results, in New Zealand the richest 1% hold 28% of the wealth and the poorest 30% hold only 1% (Shorrocks et al., 2017). Multiple studies have indicated that religion and associated just world beliefs may be related to the dismissal and rationalisation of this issue. For example, Kirchmaier, Prüfer, and Trautmann (2018) found that Christianity was associated with lower endorsement of efforts to create wealth equality. Stegmueller (2013) completed a large scale analysis of data from 24 elections in 15 Western-European countries and found that Christianity was associated with less redistributive voting. Elgin, Goksel, Gurdal, and Orman (2013) demonstrated that religion was associated more wealth inequality. Research by Hinojosa and Park (2004) used surveys which assessed religiosity and explanations for racial wealth inequality. They found that religious people were more likely than their nonreligious counterparts to deny structural causes for racial wealth inequality and attribute it to personal decisions. Guiso, Sapienza, and Zingales (2003) used surveys that analysed the relationship between religion and attitudes towards the government and the free market. Their analysis found that religious people were more inclined to trust the government, believe the markets' outcomes are fair and believe that poor people are lazy and lack willpower. The causality of these correlations is unknown; however it is plausible that the just world themes of religion cause people to view wealth inequality in a manner that protects these just world beliefs.

Additional evidence that religion may cause people to dismiss or rationalise wealth inequality is provided by studies that explore how religion impacts views of wealth among the poor. The assumption that income is negatively associated with support of wealth redistribution is intuitive, backed up with data and has been foundational to political science literature for years(Lipset, Lazarsfeld, Barton, & Linz, 1954). Yet persisting and increasing wealth inequality in democratic nations show that this correlation may not be as robust and consistent as one would assume. Scientists have speculated and found supporting evidence that religious adherence may contribute to the breakdown of this correlation by influencing the poor to vote against their economic self-interest. Through analysis of cross-country survey data, De La O and Rodden (2008) found the assumed correlation between low income and voting in favour of wealth re-distribution to disappear among religious individuals. Huber and Stanig (2007) conducted a similar analysis and found that the religious poor were more likely than their secular counterparts, to vote in favour of less tax and redistribution. Schnabel (2021) found that the poor were both more religious and more likely to support redistributive polices, however religious adherence was found to suppress what would otherwise be larger and more consistent variation between income groups.

### **Attributions and Attitudes**

To gain a more in-depth understanding of religion, just world belief systems present in religious texts, views on wealth and the interaction between these phenomena, it is necessary to examine attitudes and attributions. It is widely accepted that attitudes significantly and substantially predict future behaviour (Kraus, 1995). This connection has motivated psychological research on attitudes relevant to a variety of social issues including

poverty and wealth inequality. Most of the existing research examining attitudes towards poverty has focused on specific attributions that are made to explain why certain individuals are poor. Poverty attributions are generally separated into two distinct categories; internal attributions and external attributions. (also referred to as individualistic and structural attributions, respectively) (Bergmann & Todd, 2019). Internal poverty attributions are beliefs that others are poor due to dispositional factors such as laziness or lack of motivation. External poverty attributions are beliefs that others are poor due to systemic or environmental factors such as discrimination in hiring or a lack of jobs available. Although not technically a component of an attitude, poverty attributions are highly related to attitudes regarding those suffering in poverty(Cozzarelli, Wilkinson, & Tagler, 2001). The belief that the poor are in their position due to internal causes (eq. laziness) implies strong negative attitudes towards the poor, whereas the belief that the poor are working hard to improve their circumstances, but are held back by external causes (eg. discrimination in hiring) implies positive attitudes towards the poor(Tagler & Cozzarelli, 2013). Understanding these attributions is important as they have have a significant impact on perspectives and behaviours regarding poverty and its alleviation. Internal poverty attributions are associated with belief in meritocracy and individualism - constructs that have been shown to individualise social/political problems and lead to victim blaming(Bullock, Williams, & Limbert, 2003; Feagin, 1972; Godfrey & Wolf, 2016). Those who predominantly attribute poverty to internal (dispositional) causes are significantly less likely to support wealth redistribution efforts than those who predominantly attribute poverty to external(societal) causes (Bullock, 1999; Kluegel & Smith, 1986; Tagler & Cozzarelli, 2013). External poverty attributions are associated with support of welfare policies and rejection of the idea of that the poor deserve their circumstances (Bullock et al., 2003; Robinson, 2009).

## Correspondence Bias

Evidently, poverty attributions are key in determining attitudes about poverty and its alleviation. Therefore, it is important to examine the causes of different poverty attributions. For decades psychological scientists have tried to understand what determines the attributions people make for others' behaviour and outcomes. Lee Ross (1977) observed that people tend to overestimate the degree that others' behaviour is due to their unique, enduring dispositions and underestimate the influence of external causes. Ross (1977) labelled this finding the fundamental attribution error. In the decades following Ross's observation, extensive psychological studies have examined this phenomenon and supported its legitimacy(Fiske & Taylor, 1991). This bias is now known as the correspondence bias (Gilbert & Malone, 1995). The correspondence bias is likely to play a large role in determining poverty attributions, specifically contributing to the prevalence of internal poverty attributions. However, while there is extensive evidence supporting the correspondence bias, it is not as rigid and simple as one may assume. Research has shown that the correspondence bias varies significantly between individuals and circumstances(Langdridge & Butt, 2004).

Gilbert and Malone (1995) defined four distinct causes of the correspondence bias.

The first cause defined by Gilbert and Malone (1995) is a lack of awareness of situational constraints. To appreciate the effect of external influences on others' behaviour (and therefor avoid the correspondence bias) an observer must be aware of these external influences.

The next cause listed by Gilbert and Malone (1995) is unrealistic expectations of behaviour.

To make accurate attributions of another's behaviours one must not only be aware of the external influences, but also understand how these external influences typically effect behaviour. Inflated categorizations of behaviour is the next cause listed by Gilbert and Malone (1995). An awareness of the external influences present, combined with an understanding of how these influences typically effect behaviour does not guarantee that an

observer can make accurate attributions. Awareness of external influences acting on another's behaviour may provide an observer with accurate expectations of behaviour but in many cases this very awareness causes an observer to have inaccurate perceptions of behaviours. For example, if an observer is aware that a student comes from a family that does not value education and understands that this external influence is likely to cause this student to be negligent of their learning the observer is likely to perceive this student's behaviour as more negligent than it actually is. The final cause of the correspondence bias listed by Gilbert and Malone (1995) is incomplete corrections of dispositional influences. To make accurate attributions of another's behaviour an observer not only has to be aware of the impact that the present external influences typically have on behaviour and to accurately perceive behaviour despite making these behavioural predictions. They also have to correct for dispositional influences that they make intuitively(Quattrone, 1982). The correction of these dispositional influences requires more effort and conscious attention than the initial intuitive dispositional attributions, so when experiencing other cognitive demands an observer is likely to fail at correcting for these dispositional attributions (and therefor fall victim to the correspondence bias) (Gilbert & Malone, 1995). The vast amount of behavioural attribution situations where at least one of the causes listed above is present helps portray and clarify the pervasiveness of this bias and how it is likely to be relevant to the attributions people make about poverty.

#### **Poverty Attributions**

The correspondence bias applies to attributions for behaviour which encompasses poverty attributions, but there is also psychological research that specifically looks at the determinants of poverty attributions. Research by Bullock (1999) that compared the poverty attributions made by welfare recipients with those of middle class found that compared with middle class participants, welfare recipients were more likely to make external poverty attributions and reject restrictive welfare reform policies. Bobbio, Canova, and Manganelli

(2010) found a positive relationship between political conservatism and internal poverty attributions.

One factor of particular relevance to the present study, belief in a just world, has consistently been shown to significantly impact poverty attributions. A series of studies by Montada (1998) showed that belief in a just world was associated with blaming the poor for their circumstances. K. B. Smith (1985) used surveys to gather participant's just world beliefs, poverty attributions and perspectives on wealth inequalities and found that belief in a just world was correlated with internal poverty attributions, derogating the poor and believing inequalities are fair and inevitable. Similar studies by Harper, Wagstaff, Newton, and Harrison (1990) and Cozzarelli et al. (2001) also used surveys to gather participants just world beliefs and their beliefs about the causes of poverty. Harper et al. (1990) found that belief in a just world was significantly correlated with blaming the impoverished for their circumstances. Correspondingly Cozzarelli et al. (2001) found that belief in a just world was positively correlated with internal poverty attributions and negatively correlated external poverty attributions. The relationship between belief in a just world and internal attributions of negative outcomes (which encompasses the relationship between belief in a just world and internal poverty attributions) is generally believed to be a function of the motivation to preserve one's belief in a just world when this belief is threatened by the suffering of others(Appelbaum, Lennon, & Lawrence Aber, 2006). The suffering of another poses a threat to the belief in a just world if the victim is believed to be innocent, so to preserve the belief that the world is a just place, people often attribute the suffering to behaviours and dispositions of the sufferer. Research by Appelbaum et al. (2006) supported this theory through a study that presented participants with vignettes that described a single mother (Lisa) of two living in poverty. There were different versions of the vignette which varied in the extent that Lisa was working hard to improve her circumstances. Participants belief in a just world was collected along with how deserving of aid they perceived Lisa to be.

Appelbaum et al. (2006) found that those who presented low belief in a just world perceived Lisa to be more deserving of financial aid as the efforts she made to improve her situation increased, conversely, those who presented high belief in a just world found her to be less deserving of aid as her efforts increased. It is argued that this effect is because when Lisa made more effort to improve her situation the belief in a just world was increasingly threatened and therefor those high in belief in a just world perceived her as more deserving and responsible for suffering and less deserving of financial aid.

As noted above, religious texts contain running themes of a just world and indeed organised religion and religious fundamentalism have been shown to be correlated with belief in a just world. There is little research that explores the interaction between religiosity, belief in a just world and poverty attributions, however, research which explores the determinants of poverty attributions has found that like belief in a just world, religiosity predicts of poverty attributions. Lea and Hunsberger (1990) examined how Christian orthodoxy impacted how an observer viewed a stranger suffering from illness. This study found that when religion was salient among orthodox and non-orthodox Christians, orthodox Christians demonstrated higher victim derogation than non-orthodox Christians. Research by Galen and Miller (2011) also used vignettes to find that when compared with people who reported low religious fundamentalism, those who presented high religious fundamentalism perceived victims of a negative outcome (inability to find a job) to be more deserving of their circumstance. Bergmann and Todd (2019) completed two studies which used surveys that assessed religiosity, religious conservatism, universality and poverty attributions and found that religious conservatism was positively correlated with internal poverty attributions in both samples. These predictors of individualistic poverty attributions all align with the evidence above indicating that through just world beliefs, religion is likely to cause people to dismiss or rationalise wealth inequality.

## **Facets of Religiosity**

Religion is a complex multifaceted concept which has an equally complex influence on beliefs and behaviour. To understand the widely varying impact religion has on behaviour, researchers have developed distinct scales to measure the different facets of religious belief(Pargament, Mahoney, Exline, Jones, & Shafranske, 2013). Research which differentiates between these religious variables has shown that they have distinct behavioural influences. For example, Saroglou and Pichon (2009) found that religious orthodoxy but not spirituality was correlated with the belief that improvement of circumstances for illegal immigrants and homeless people is best achieved through collaboration with those suffering and self-improvement among these individuals. They found that religious orthodoxy was correlated with the belief that homeless people and illegal immigrants are solely responsible for improving their circumstances through selfimprovement. Johnson, Labouff, Rowatt, Patock-Peckham, and Carlisle (2012) demonstrated that relationships between religion and racial and homophobic prejudice were fully mediated by religious fundamentalism. Bergmann and Todd (2019) found that religious conservatism but not religious attendance alone was correlated with internal poverty attributions while a spiritual variable (universality) was correlated with external poverty attributions.

The predictions and research above are based upon the influence of the assertions and proclamations of organised religion. To ensure this is the concept of religion measured, the present study will define religion in a manner distinct from spirituality unaccompanied by institutional practice and beliefs. Religion will be defined as engagement in institutional religion, and beliefs and practices associated with such engagement (Pargament et al., 2013; Piedmont, Ciarrochi, Dy-Liacco, & Williams, 2009).

### **Dispositions Associated with Religion and Just World Beliefs**

It is important to note that while quotes from religious texts and research above suggests that religious adherence is likely to increase just world beliefs and therefore cause adherents to rationalize structural injustices such as wealth inequality, there are no findings which show that this is indeed the direction of causation. Relationships between religion, just world beliefs, poverty attributions and conservative views on wealth are likely to be at least partially due to dispositions which predict religion, just world beliefs and poverty attributions and opposition to equality. Past research has shown that religion, just world beliefs and conservative views are correlated with many similar dispositions. Positive correlations between endorsement of conservative, system justifying attitudes and needs for order, intolerance of ambiguity and lack of openness to experience were shown in research by Jost et al. (2007). Hennes, Nam, Stern, and Jost (2012) showed that lower needs for cognition were correlated with economic system justification. And research by Chirumbolo, Areni, and Sensales (2004) demonstrated that needs for closure were related to conservative political attitudes. Findings have shown connections between religiosity and many of the same dispositions. The study mentioned above by Chirumbolo et al. (2004) showed that as well as conservative political attitudes, need for closure predicted religiosity. Research by Saroglou (2002) also demonstrated a relationship between need for closure and religiousness, this study showed that need for closure was positively correlated with religious identification and religious fundamentalism. Saroglou's (2002) study showed that religiousness and religious fundamentalism were most strongly correlated with three of five items from the need for closure scale, these were need for order, need for predictability, and closed mindedness. Jost et al. (2014) showed that self-reported religiosity was correlated with lower needs for cognition. Brandt and Reyna (2010) showed positive correlations between closed mindedness, needs for order and religious fundamentalism.

## Other Outcomes of Religion

It should also be noted that, while the research above contributes to an understanding of how religious beliefs influence adherents, it does not provide evidence that religion or the contents of religious texts prevent any positive qualities associated with religion. Research has shown that religion predicts many outcomes which on the surface, may appear to contradict the predictions above. For example, religious identification has been shown to predict increased volunteering (Cambell & Yonish, 2003), empathy and altruism (T. W. Smith, 2006) and charitable giving (Bekkers & Schuyt, 2008). Compared with those presented with neutral words, those presented with words related to religion were more generous to a stranger (Shariff & Norenzayan, 2007), had more prosocial intentions(Pichon, Boccato, & Saroglou, 2007) and were more honest when given a chance to cheat(Randolph-Seng & Nielsen, 2007). These findings demonstrate an interesting influence religion has on behaviour; however, they do not contradict the prediction that religion increases just world beliefs and consequently motivates adherents to rationalise and dismiss injustices. High just world beliefs and dismissal of injustices can exist in the minds of the religious harmoniously with honesty, generosity and pro social intentions. In fact, if increased just world beliefs are responsible for relationships between religion, poverty attributions, opposition to equality and other conservative beliefs, this provides insight into how religion can cohesively and congruently have such widely varied impacts.

#### **Hypotheses**

The present study aims to contribute to an understanding of religion, the world justifying nature of religious text and the influence it has on adherents' ideological views - specifically regarding wealth. To build upon the findings cited above, this study will aim to examine if religious adherence does indeed lead to increased just world beliefs and

consequently cause people to rationalise and dismiss societal problems such as drastic wealth inequality. This will be achieved by measuring identification with organised religion, fundamentalist religious beliefs, just world beliefs, attributions for the causes of poverty and perspectives on equality.

If religious texts do increase just world beliefs which consequently cause the religious to attribute poverty predominantly to internal causes and therefore, rationalise wealth inequality, identification with organised religion and fundamentalist religious beliefs will be associated with just world beliefs, internal poverty attributions and opposition to equality, while being negatively correlated with external poverty attributions.

If it is the claims and themes of religious texts, rather than other facets of religion which are responsible for relationships between religiousness, just world beliefs, poverty attributions and perspectives on equality, fundamentalist religious beliefs will be more strongly correlated with these variables than identification with organised religion alone and relationships between organised religion and just world beliefs, poverty attributions and opposition to equality will all breakdown when religious fundamentalism is added to regression models.

If just world beliefs are responsible for relationships between religion, poverty attributions and perspectives on equality, identification with organised religion and religious fundamentalism will no longer predict poverty attributions or perspectives on equality when just world beliefs are added to regression models.

#### **Methods**

# **Participants**

Participants were recruited to complete an online survey (generated using Qualtrics software) via New Zealand based discussion forums on Facebook and Reddit. A brief summary of the research was posted in these forums, along with a URL link to the survey. All participation was voluntary, and participants were able to stop at any point of the survey. There were initially 410 responses to the survey, however, 51 participants withdrew from the study before completing any scales, leaving 359 participants. Of the 359 participants, 261 identified as New Zealand European, 22 Maori, 16 Asian, 5 Pacific, 4 African, 3 Middle Eastern, 1 Latin American and 47 other. 165 of the participants identified as male, 187 female and 7 other. The mean age of participants was 36 (SD = 13.7). 35% of the sample reported religious affiliation. Of those who reported religious affiliation, 58.3% identified as Christian, 5.7% reported they were affiliated with Maori religions, beliefs and philosophies, 2.3% identified as Islamic, 2.3% identified with Spiritualist/New Age religions, 0.9% identified as Buddhist, 0.9% identified with Judaism and 24.9% identified with other religions, beliefs and philosophies. 87 of the 359 participants did not complete the entire survey so the number of participants varies across scales.

### Instruments

#### Organised Religion

To measure identification with organised religion participants were asked to respond to three items taken from Ebstyne King and Furrow (2004). These items measured the level of importance participants place on religion and attending religious activities by asking participants to report how important religion and the attendance of religious services is to

them on two four point scales (1 = "not at all important to me" – 4 = "very important to me"). The frequency which participants attended religious worship services was measured by asking participants to report how often they attend worship services on a 6 point scale (1 = "never" – 6 = "more than once a week"). These items represent common dimensions used to assess religiousness(Ebstyne King & Furrow, 2004). Because measures in this scale were not uniform (e.g. 1-4, 1-6) Z scores were used to create final scores. Research by Ebstyne King and Furrow (2004) found this scale to have acceptable internal consistency ( $\alpha$  = .65) and the present research found it to have a greater internal consistency of  $\alpha$  = .90.

#### Religious Fundamentalism

Religious fundamentalism was measured with Intratextual Fundamentalism Scale by Paul Williamson, Hood Jr, Ahmad, Sadiq, and Hill (2010). Religious fundamentalism is a construct that is defined by the extent to which one believes that the sacred text of their religion holds absolute truths that are non-negotiable and stand as a ground of objective reality. The Intratextual Fundamentalism scale asks participants to indicate the extent to which they agree with five items on a 7 point scale (1 = "strongly agree" – 7 = "strongly disagree"). These items represent attitudes that religious fundamentalists hold of their sacred texts. Examples of items include; "Everything in the sacred writing is absolutely true without question" and "The sacred writing should never be doubted, even when scientific or historical evidence outright disagrees with it". One item in the scale ("The sacred writing is NOT really the words of God, but the words of man.") describes an attitude opposing fundamentalist beliefs and was therefore reverse coded. Multiple studies by Paul Williamson et al. (2010) suggest that the Intratextual Fundamentalism Scale is a psychometrically sound scale that assesses religious fundamentalism economically without bias towards varying religious texts. Research by Paul Williamson et al. (2010) demonstrated that this scale is internally consistent ( $\alpha = .88$ ) as did the present study ( $\alpha = .93$ ). Items were averaged to create final scores.

#### Belief in a Just World

Belief in a just world is defined by Jost et al. (2014) as the belief that "people typically get what they deserve and deserve what they get; with regard to outcomes, what "is" is what "ought" to be"(p.62). Belief in a just world was measured with a scale developed by Dalbert, Montada, and Schmitt (1987). This scale requires participants to rate their agreement with six items on a 1-7 scale (1 = "strongly agree" - 7 = "strongly disagree"). Examples of these items include; "Justice always prevails over injustice" and "people get what they deserve". This scale returned a good internal reliability ( $\alpha$  = .80). Items were averaged to create final scores.

## System Justification

System justification was measured with a version of the System Justification scale by Kay and Jost (2003). This scale measures participants perceptions of the fairness, legitimacy, and justifiability of the prevailing social system by presenting participants with eight items and having them report their agreement with each on a 1-7 scale (1 = "strongly agree" – 7 = "strongly disagree"). The version of this scale that was used in the current study was altered so New Zealand (rather than America) is the country of interest. Examples of items in the scale include; "In general, the New Zealand political system operates as it should" and "Society is set up so that people usually get what they deserve". Two items in this scale ("our society is getting worse every year", "New Zealand society needs to be radically restructured") describe attitudes opposing system justification. These were therefore, reverse coded. Kay and Jost (2003) found this to be an internally reliable scale ( $\alpha$  = .87). The present research demonstrated a similar result ( $\alpha$  = .80). Items were averaged to create final scores.

## **Poverty Attributions**

To assess the causes to which participants attribute poverty, participants responded the Poverty attributions scale adapted by Cozzarelli et al. (2001). Cozzarelli et al. (2001) created this scale using factors which were taken from Feagin (1972) and K. B. Smith and Stone (1989). The scale was designed to differentiate between different types of attributions for poverty; external, internal and cultural. To differentiate between these different types of attributions, the scale is made up of three subscales, one for each type of attribution. Each subscale presented participants with items corresponding to the type of attribution in question. Participants were asked to report how important they believed each item is as a cause of poverty on a 1 to 5 scale. (1 = "not at all important as a cause of poverty", 5 = "extremely important as a cause of poverty"). The external attributions subscale was made up of seven items, examples of these items include; "prejudice and discrimination in hiring", "a government which is insensitive to the plight of the poor" and "being taken advantage of by the rich". The internal attributions subscale was made up of six items, examples of these items include; "lack of effort and laziness by the poor", "loose morals among poor people" and "lack of motivation caused by being on welfare". The cultural attributions subscale was made up of five items, examples of these items include; "the breakdown of the nuclear family" and "having to attend bad schools". The cultural subscale was shown to have poor reliability (α. = 46) and does not provide differentiation between internal or external attributions, therefore, this scale was not included in analyses. Research by Cozzarelli et al. (2001) demonstrated both the external and the internal subscales were internally valid (αs = .79, .75, respectively). Measures of validity in the current research produced similar results (αs = .81, .91, respectively). Items from internal and external attribution subscales were averaged to create respective final scores.

## Opposition to Equality

Opposition to equality is defined as the belief that "increased social and economic equality is unattainable and undesirable; it would be detrimental for society" (Jost et al., 2014)(p.62). To measure opposition to equality participants responded to a scale developed by Kluegel and Smith (1986) and used in research by Jost, Blount, Pfeffer, and Hunyady (2003) and Jost et al. (2014). This scale asks participants to rate their agreement with seven items on a 1-7 scale(1 = "strongly agree" – 7 = "strongly disagree"). Examples of these items include; "Incomes should *not* be more equal because the rich invest in the economy and that benefits everyone", "If incomes were more equal, life would be boring because people would all live in the same way". One item ("Incomes should be more equal, because everybody's contribution to society is equally important") describes an attitude in favour of equality and was therefore reverse coded. Jost et al. (2003) demonstrated this is an internally consistent scale ( $\alpha = .80$ ) as did the current study ( $\alpha = .93$ ). Items were averaged to create final scores.

#### **Procedure**

#### Recruitment

The URL link to the survey first presented potential participants with an information sheet that included details of the research including the project title, the purpose of the research, the potential risks and how to participate. To proceed with the study participants had to confirm they had read the information sheet and that they were willing to participate. Participants who volunteered to proceed were then asked to complete demographic questions. These included age, gender, ethnicity and religion. Next, they were asked to respond to the scales described above. Upon completion participants were thanked.

## Data Analysis

Initial cleaning of data involved, importing all data to IBM SPSS Statistics software, removing all responses that did not contain any complete scales and removing all extreme outliers. The portion of the sample that reported their gender as 'other' was too small (1.7%, n=7) for analysis, so this group was removed from all analyses where gender was a relevant variable.

To gain a primary understanding of relationships between variables a Spearman's correlation analysis was completed. Spearman's correlations (rather than Pearson's) were used because data for certain variables were skewed, so normal data could not be assumed. Variables included in the Spearman's correlation analysis were, age, gender, organised religion, religious fundamentalism, belief in a just world, system justification, internal poverty attributions, external poverty attributions and opposition to equality.

To gain a more comprehensive understanding of relationships between variables, a series of hierarchical linear regression analyses were completed. Regression Analysis One examined predictors of opposition to equality. This analysis was a five-stage hierarchical linear regression analysis with opposition to equality as the dependant variable. The first stage included age, gender, and organised religion as independent variables. The second stage added religious fundamentalism, the third stage added belief in a just world, the fourth stage added system justification and the fifth stage added internal and external poverty attributions as independent variables.

Regression Analysis Two examined predictors of internal poverty attributions. This analysis was a four-stage hierarchical linear regression analysis with internal poverty attributions as the dependant variable. The first stage included age, gender and organised religion as independent variables. The second stage added religious fundamentalism, the

third stage added belief in a just world and the fourth stage added system justification as independent variables.

Regression Analysis Three examined predictors of external poverty attributions. This analysis was a four-stage hierarchical linear regression analysis with external poverty attributions as the dependant variable. The first stage included age, gender and organised religion as independent variables. The second stage added religious fundamentalism, the third stage added belief in a just world and the fourth stage added system justification as independent variables.

Regression Analysis Four examined predictors of belief in a just world. This analysis was a two-stage hierarchical linear regression analysis with belief in a just world as the dependant variable. The first stage included age, gender and organised religion as independent variables. The second stage added religious fundamentalism as an independent variable.

#### Results

## **Spearman's Correlations**

Descriptive statistics and Spearman's correlations are reported in Table 1. There was no mean score for organised religion because final scores for this scale were created from Z scores. The mean score for religious fundamentalism was low. All other scales (belief in a just world, system justification, opposition to equality, internal and external poverty attributions) returned means close to mid-range. The external poverty attributions subscale mean score was higher than that of internal attributions, showing that participants more strongly endorsed external than internal poverty attributions.

Females reported significantly higher levels of investment in organised religion and religious fundamentalism than males. There were no gender differences in belief in a just world, however, females scored significantly lower on system justification, opposition to equality and internal poverty attributions while scoring significantly on higher external poverty attributions.

There was a weak, but significant correlation between age and religious affiliation, with older participants reporting greater religious affiliation. However, age was not significantly correlated with any other variables.

Those who identified with organised religion were more likely to report belief in a just world, internal poverty attributions and opposition to equality. Although statistically significant, these correlations were relatively small. Larger correlations between religious fundamentalism and the same variables were found. This indicates that fundamentalist religious beliefs are a stronger predictor of belief in a just world, internal poverty attributions and opposition to equality than identification with organised religion. Religious fundamentalism was also negatively correlated with external poverty attributions, showing that those who hold fundamentalist religious beliefs were less likely to attribute poverty to

external causes. There was no relationship between organised religion and system justification or religious fundamentalism and system justification. Those who reported higher belief in a just world reported greater system justification, internal poverty attributions and opposition to equality while reporting less external poverty attributions. System justification was positively correlated with internal poverty attributions and opposition to equality while negatively correlated with external poverty attributions. This shows that those who reported greater system justification were more likely to attribute poverty to internal causes, oppose equality and were less likely to attribute poverty to external causes. There was a large positive correlation between internal poverty attributions and opposition to equality, and a large negative correlation between external poverty attributions and opposition to equality. This shows that those who attribute poverty predominantly to internal causes reported greater opposition to equality and those who attribute poverty predominantly to external causes reported lesser opposition to equality.

Table 1 Spearman's Correlations

	Mean ± SD	Correlation Coefficient						*	
		1	2	3	4	5	6	7	8
1 Gender		1							,
2 Age	36.21±13.8	.22***							
3 Organised Religion		.17**	.15**						
4 Religious Fundamentalism	2.22±1.62	.12*	.00	.56***					
5 Belief in a Just World	3.04±1.08	07	06	.14***	.22***				
6 System Justification	3.64±1.07	25***	01	.02	.09	.58***			
7 Opposition to Equality	3.16±1.62	22***	02	.13*	.23***	.39***	.49***		
8 External Poverty Attributions	3.3±.87	.24***	03	04	12*	32***	52***	63***	
9 Internal Poverty Attributions	2.72±1.14	22***	.00	.14*	.20**	.31***	.39***	.73***	44***

Note. Organised religion has no mean or standard deviation as this scale was made up of Z scores. Internal and external poverty attributions were measured on 1-5 scales while religious fundamentalism, belief in a just world, system justification and opposition to equality were measured on 1-7 scales; mean scores to be observed accordingly.
\*\*\*.P<.001. \*\*. P<.01. \*. P<.05.

# **Hierarchical Linear Regression Analyses**

# Regression Analysis 1: Predictors of Opposition to Equality

Results of Regression Analysis 1 are reported in Table 2. This analysis examined predictors of opposition to equality using a five-stage hierarchical linear regression with opposition to equality as the dependant variable. Stage 1 included age, gender and organised religion as independent variables. Age was not a significant predictor. Gender was a significant predictor with males reporting significantly higher opposition to equality. Organised religion was also a significant predictor. Independent variables in this stage accounted for 9% of variance. Stage 2 added religious fundamentalism as an independent variable. Religious fundamentalism was a significant predictor. With the addition of religious fundamentalism, organised religion dropped off as a significant predictor, however, the relationship between gender and opposition to equality remained significant (although, very slightly smaller). The amount of variance accounted for saw a significant increase, with models in this stage accounting for 13% of variance. Stage 3 added Belief in a just world as an independent variable. Belief in a just world was a significant predictor. With the addition of belief in a just world, the relationship between gender and opposition to equality was slightly smaller but remained significant. Religious fundamentalism remained a significant predictor, however, this relationship was also smaller. The amount of variance accounted for increased significantly, independent variables in this stage accounted for 22% of variance. Stage 4 added System justification as an independent variable. System justification was a significant predictor. With the addition of System justification, belief in a just world dropped off as a predictor and the relationship between gender reduced in size but remained significant. Religious fundamentalism remained a significant predictor. The amount of variance accounted for increased significantly to 30%. Stage 5 added internal and external poverty attributions as independent variables. Internal poverty attributions were a significant predictor while external poverty attributions were a significant negative predictor. With the

addition of these variables, gender, religious fundamentalism and system justification were no longer significant predictors. There was a significant increase in variance accounted for with independent variables in this stage accounting for 69% of variance.

**Table 2**Predictors of Opposition to Equality

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.09		
Gender	26	<.000			
Age	03	.615			
Organised Religion	.19	.002			
Model 2			.13	.03	.003
Gender	25	<.000			
Age	02	.809			
Organised Religion	03	.794			
ReligiousFundamentalism	.28	.003			
Model 3			.22	.09	<.000
Gender	21	<.000			
Age	.01	.878			
Organised Religion	03	.718			
Religious Fundamentalism	.23	.009			
Belief in a Just World	.32	<.000			
Model 4			.30	.82	<.000
Gender	14	.018			
Age	01	.865			
Organised Religion	02	.858			
Religious Fundamentalism	.23	.006			
Belief in a Just World	.11	.105			
System Justification	.36	<.000			
Model 5			.69	.38	<.000
Gender	.00	.953			
Age	07	.081			
Organised Religion	.02	.698			
Religious Fundamentalism	.02	.703			
Belief in a Just World	.08	.090			
System Justificatiom	.05	.345			
Internal Poverty Attributions	.52	<.000			
External Poverty Attributions	37	<.000			

Dependent Variable: Opposition to Equality

# Regression Analysis 2: Predictors of Internal Poverty Attributions

Results of Regression Analysis 2 are reported in Table 3. This analysis examined predictors of internal poverty attributions using a four-stage hierarchical linear regression analysis with internal poverty attributions as the dependant variable. Stage 1 included age, gender and organised religion as independent variables. Age was not a predictor. Gender was a significant predictor with males reporting significantly higher internal poverty attributions. Organised religion was also a significant predictor. Independent variables in this stage accounted for 8% of variance. Stage 2 added religious fundamentalism as an independent variable. Religious fundamentalism was a significant predictor. With the addition of religious fundamentalism, organised religion dropped off as a significant predictor, however, the relationship between gender and internal poverty attributions remained significant (however very slightly smaller). There was a significant increase in variance accounted for showing that independent variables at this stage accounted for 12% of variance. Stage 3 added belief in a just world as an independent variable. Belief in a just world was a significant predictor. With the addition of belief in a just world, the relationship between gender and internal poverty attributions was slightly smaller but remained significant. Religious fundamentalism remained a significant predictor, however this relationship was also smaller. There was a significant increase in variance accounted for showing that independent variables in this stage accounted for 16% of variance. Stage 4 added system justification as an independent variable. System justification was a significant predictor. With the addition of system justification, gender and belief in a just world dropped off as significant predictors. Religious fundamentalism remained a significant predictor. There was a significant increase in variance accounted for showing that independent variables in this model accounted for 23% of variance.

**Table 3**Predictors of Internal Poverty Attributions

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.08		
Gender	25	<.000			
Age	05	.456			
Organised Religion	.17	.007			
Model 2			.12	.04	.001
Gender	24	<.000			
Age	.07	.289			
Organised Religion	07	.434			
Religious Fundamentalism	.32	.001			
Model 3			.16	.04	.001
Gender	21	.001			
Age	.08	.185			
Organised Religion	08	.395			
Religious Fundamentalism	.29	.002			
Belief in a Just World	.20	.001			
Model 4			.23	.07	<.000
Gender	15	.017			
Age	.07	.275			
Organised Religion	06	.477			
Religious Fundamentalism	.29	.001			
Belief in a Just World	.01	.853			
System Justification	.33	.000			

Dependent Variable: Internal Poverty Attributions

# Regression Analysis 3: Predictors of External Poverty Attributions

Results of Regression Analysis 3 are reported in Table 4. This analysis examined predictors of external poverty attributions using a four-stage hierarchical linear regression analysis with external poverty attributions as the dependant variable. Stage 1 included age, gender and organised religion as independent variables. Age was not a predictor. Gender was a significant predictor with females reporting significantly higher external poverty attributions. Organised religion was a significant negative predictor. Independent variables in this stage accounted for 10% of variance. Stage 2 added religious fundamentalism as an independent variable. Religious fundamentalism was not a significant predictor, however with the addition of religious fundamentalism, organised religion dropped off as a significant predictor. The relationship between gender and external poverty attributions remained significant (however very slightly smaller). There was no significant increase in variance accounted for at this stage. Stage 3 added belief in a just world as an independent variable. Belief in a just world was a significant negative predictor. With the addition of belief in a just world, the relationship between gender and external poverty attributions was slightly smaller but remained significant. There was a significant increase in variance accounted for showing that independent variables in this stage accounted for 19% of variance. Stage 4 added system justification as an independent variable. System justification was a significant predictor. With the addition of system justification, belief in a just world dropped off as a significant predictor. The relationship between gender and external poverty attributions reduced, however, remained significant. There was a significant increase in variance accounted for showing that independent variables in this model accounted for 31% of variance.

**Table 4**Predictors of External Poverty Attributions

Variable	β	Р	R²	$\Delta R^{2}$	Р
Model 1			.10		
Gender	.30	<.000			
Age	05	.437			
Organised Religion	14	.027			
Model 2			.11	.02	.025
Gender	.29	<.000			
Age	06	.164			
Organised Religion	.02	.806			
Religious Fundamentalism	21	.025			
Model 3			.20	.08	<.000
Gender	.26	<.000			
Age	08	.164			
Organised Religion	.03	.738			
Religious Fundamentalism	16	.068			
Belief in a Just World	29	<.000			
Model 4			.29	.10	<.000
Gender	.18	.003			
Age	06	.262			
Organised Religion	.01	.889			
Religious Fundamentalism	17	.050			
Belief in a Just World	.07	.308			
System Justification	39	<.000			

Dependent Variable: External Poverty Attributions

# Regression Analysis 4: Predictors of Belief in a Just World

Results of Regression Analysis 4 are reported in Table 5. This analysis examined predictors of belief in a just world using a two-stage hierarchical linear regression analysis with belief in a just world as the dependant variable. Stage 1 included age, gender and organised religion as independent variables. Neither age nor gender were significant predictors. Organised religion was a significant predictor. Independent variables in this stage accounted for 3% of variance. Stage 2 added religious fundamentalism as an independent variable. Religious fundamentalism was a significant predictor. With the addition of religious fundamentalism, organised religion dropped off as a significant predictor. There was a significant increase in variance accounted with independent variables at this stage accounting for 6% of variance.

Table 5

Predictors of Belief in a Just World

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.03		
Gender	10	.109			
Age	08	.222			
Organised Religion	.15	.018			
Model 2			.06	.03	.009
Gender	10	.116			
Age	07	.265			
Organised Religion	02	.861			
Religious Fundamentalism	.23	.009			

Dependent Variable: Belief in a Just World

#### **Discussion**

#### **Predictions**

The core prediction of the present research was that the themes and claims of a just world which are present in religious texts would cause religious adherents to hold just world beliefs and consequently, attribute causes of poverty to those suffering, therefore dismissing the injustice of wealth inequality. It was therefore predicted that religious variables would be associated with belief in a just world, system justification, poverty attributions (a positive correlation with internal and a negative correlation external attributions) and opposition to equality. Because it was predicted that the themes and claims of religious texts would be responsible for relationships between religiousness, just world beliefs, poverty attributions and opposition to equality, it was hypothesized that fundamentalist religious beliefs would be more strongly correlated with just world beliefs, poverty attributions and conservative views on wealth than identification with organised religion alone. It was also predicted that if indeed the themes and claims of religious texts are responsible for these relationships, organised religion would cease to be a significant predictor of just world beliefs, poverty attributions and opposition to equality when religious fundamentalism was added to regression models. It was hypothesized that increased just world beliefs among the religious would be responsible for relationships between religion, poverty attributions and conservative views on wealth. Therefore, it was hypothesized that just world beliefs would override relationships between religious fundamentalism, poverty attributions and conservative views on wealth in regression models.

## **Primary Relationships**

The results of this research provide new insights into the phenomena examined, by both supporting and contradicting the predictions summarised above. Religious affiliation

among the sample was lower than results previous statistics would predict, with Stats NZ (2018) showing that 44.7% of the New Zealand population reported religious affiliation and only 35% of the current sample reporting religious affiliation, this may be the result of recruiting from online discussion forums or a general trend of decreasing religious affiliation (Stats NZ, 2018).

Spearman's correlations predominantly aligned with previous research and supported the prediction that identification with organised religion and fundamentalist religious beliefs would predict just world beliefs, poverty attributions and opposition to equality. Spearman's correlations supported this prediction by showing that both religious variables (organised religion, religious fundamentalism) were associated with increased belief in a just world, internal poverty attributions and opposition to equality. These correlations support past research which has shown correlations between religion and just world beliefs, poverty attributions and opposition to equality (Bergmann & Todd, 2019; Dalbert, 2009; Galen & Miller, 2011; Hinojosa & Park, 2004; Jost et al., 2014; Kaplan, 2012; Kirchmaier et al., 2018; Kunst et al., 2000).

There were two findings from Spearman's correlations which contradicted predications. Neither organised religion nor religious fundamentalism were correlated with system justification and there was no relationship between organised religion and external poverty attributions (although there was a significant negative relationship between religious fundamentalism and external poverty attributions).

The lack of significant relationships between either religious variables (Organised Religion, Religious Fundamentalism) and system justification differs from research by Jost et al. (2014) which found a moderate positive correlation between system justification and religiousness. It is likely that this finding was not replicated in the present research because items that comprise this system justification scale refer to the prevailing social system in the country which participants reside. In research by Jost et al. (2014), these items refer to the

social system of the United States of America, whereas, in the present study these items were modified to refer to the social system of New Zealand. The social systems of the two countries vary significantly. The core principals of the USA's social system are arguably far more aligned with Christian values and beliefs than are the principals of New Zealand's prevailing social system. Considering that most religious participants in both studies were Christian, this provides a possible explanation of why the correlation between religiosity and system justification was not replicated in the current research.

The lack of relationship between religion and system justification shown in the present research contributes to an understanding of how religion impacts adherents view of the prevailing social system. With only results from Jost et al. (2014) which show that religiousness predicts system justification, one might assume that this relationship is generalisable across religions and political systems. The findings of the present research indicate that this is not the case, results shown here imply that for religious adherence to increase endorsement of the prevailing social system, core principles of religion and prevailing social system must be aligned.

The lack of relationship between organised religion and external poverty attributions is contradictory to predictions regarding specific relationships. However, results showed a significant negative relationship between religious fundamentalism and external poverty attributions. This shows that identification with organised religion alone does not predict external poverty attributions; however, fundamentalist religious views are associated with significantly less support of external poverty attributions. This finding therefore aligns with the core hypothesis, that themes and claims of a just world cause present in religious texts cause religious adherents to hold just world beliefs and consequently attribute poverty predominantly to internal causes.

# The Role of Religious Fundamentalism

The prediction that themes and claims of religious holy texts are responsible for relationships between religiousness, just world beliefs and conservative views on wealth was supported by results of Spearman's correlations and hierarchical linear regression analyses. Religious fundamentalism measures the extent to which one believes the holy text of their religion holds absolute non-negotiable truths, whereas organised religion measures participants' investment in organised religion, but does not necessarily measure the extent to which they believe and identify with the contents of their religious text. Therefore, if contents of religious texts, rather than other facets of religion are responsible for relationships between religiousness, just world beliefs, poverty attributions and opposition to equality, one would expect: (a) relationships between religious fundamentalism, just world beliefs, poverty attributions and opposition to equality would be stronger than relationships between organised religion and the same variables and (b) in regression analyses, religious fundamentalism would override relationships between organised religion, just world beliefs, poverty attributions and opposition to equality.

In alignment with these predictions, Spearman's correlations showed relationships between religious fundamentalism and belief in a just world, poverty attributions and opposition to equality were all larger than relationships between organised religion and the same variables. Spearman's correlations also aligned with this prediction by showing religious fundamentalism, but not organised religion predicted less endorsement of external poverty attributions.

Hierarchical linear regression analyses provided further support by demonstrating that organised religion predicted belief in a just world, poverty attributions and opposition to equality before, but not after religious fundamentalism was added to regression models. In regression models with belief in a just world, internal poverty attributions and opposition to equality as dependant variables, organised religion was initially a significant predictor. When

religious fundamentalism was added to these models as an independent variable, religious fundamentalism was a significant predictor, significantly more variance was accounted for, and organised religion dropped off as a predictor. The linear regression analysis with external poverty attributions as the dependant variable produced similar results, in this analysis organised religion was initially a significant negative predictor and the addition of religious fundamentalism as an independent variable overrode this relationship entirely. These findings show that religious fundamentalism entirely accounts for relationships between organised religion and belief in a just world, poverty attributions and opposition to equality.

#### The Role of Just World Beliefs

It was hypothesized that increased just world beliefs among the religious would be responsible for relationships between religion, poverty attributions and opposition to equality. Therefore, it was predicted that just world beliefs would override relationships between religious variables, poverty attributions and opposition to equality in regression analyses. To investigate this hypothesis, belief in a just world and system justification were added to hierarchical linear regression analyses.

When belief in a just world was added to hierarchical linear regression analyses with internal poverty attributions and opposition to equality as the dependant variables, belief in a just world was a significant predictor, variance accounted for increased significantly and the relationship between religious fundamentalism and the respective dependant variables (internal poverty attributions, opposition to equality) was slightly reduced but not eliminated. This shows that just world beliefs accounted for a small portion of the relationships between religious fundamentalism and respective dependant variables; however, religious fundamentalism was still a significant predictor of both internal poverty attributions and opposition to equality, independent of just world beliefs. In the linear regression analysis with

external poverty attributions as the dependant variable, religious fundamentalism was a significant negative predictor before, but not after the addition of belief in a just world. This shows that belief in a just world entirely accounts for the negative relationship between religious fundamentalism and external poverty attributions.

When system justification was added to regression analyses with external poverty attributions, internal poverty attributions and opposition to equality as dependant variables, system justification was a significant predictor and the amount of variance accounted for increased significantly, however, the relationship between religious fundamentalism and respective dependant variables (external poverty attributions, internal poverty attributions and opposition to equality) was not significantly impacted. This was to be expected, given results from Spearman's correlations which showed system justification was not correlated with either organised religion or religious fundamentalism. The addition of system justification as an independent variable did however, override belief in a just world as a predictor of external poverty attributions, internal poverty attributions and opposition to equality.

The cumulation of results shown by adding belief in a just world and system justification to the regression models indicates that just world beliefs are only partially responsible for relationships between religion, poverty attributions and opposition to equality. The fact that addition of belief in a just world and system justification to regression models only slightly reduced the extent which religious fundamentalism predicted internal poverty attributions and opposition to Equality, indicates that the bulk of these relationships is independent of just world beliefs. These findings therefore only partially align with the hypothesis that increased just world beliefs cause the religious to attribute poverty to internal causes and dismiss the injustice of wealth inequality.

By showing that just world beliefs partially account for relationships between religious fundamentalism, poverty attributions and opposition to equality, findings suggest that

increased just world beliefs among the religious may be partly responsible for relationships between religion, attributions for the causes of poverty and opposition to equality. This partially aligns with the prediction that religion increases just world beliefs and consequently lead to predominantly internal attributions for poverty and rationalisation of injustices. By supporting this prediction, these findings build upon an abundance of research which has shown correlations between religion and outcomes associated with just world beliefs. This research includes (but is not limited to) studies which have shown relationships between religion, internal attributions for the causes of poverty (Cozzarelli et al., 2001; Harper et al., 1990; Hinojosa & Park, 2004; Montada, 1998; K. B. Smith & Stone, 1989) and conservative ideologies (Altemeyer & Hunsberger, 1992; Antonenko Young et al., 2013; Guiso et al., 2003; Harris & Mills, 1985; Stegmueller, 2013; Walls, 2010). The present findings build upon this research by suggesting that increased just world beliefs among the religious may be partially responsible for these relationships.

By showing that the bulk of relationships between religious fundamentalism, poverty attributions and opposition to equality were independent of just world beliefs, the present findings suggest that increased just world beliefs among the religious are not responsible for the majority of relationships between religiousness, attributions for the causes of poverty and opposition to equality. Although contradictory to predictions, this finding still provides further insight into relationships between religion and outcomes associated with just world beliefs. This finding suggests that relationships between religion and outcomes associated with just world beliefs are not necessarily caused by increased just world beliefs among the religious. Because the present findings indicate that just world beliefs are only partially responsible for relationships between religion, attributions for the causes of poverty and opposition to equality, causation of the bulk of these relationships remains ambiguous.

# The Role of Poverty Attributions

To examine the relationships between these variables further, poverty attributions were added as independent variables to the regression analysis with opposition to equality as the dependant variable. Both internal and external poverty attributions were significant predictors, internal poverty attributions were positive predictors and external poverty attributions, negative. The addition of poverty attributions to this regression model significantly increased the variance accounted for and overrode religious fundamentalism and system justification as predictors. This indicates that poverty attributions entirely accounted for relationships between religious fundamentalism, just world beliefs and opposition to equality.

By showing that poverty attributions entirely accounted for relationships between religious fundamentalism, system justification and opposition to equality, results suggest that attributions for the causes of poverty are entirely responsible for relationships between religion, just world beliefs and opposition to equality. This finding provides further insight into relationships been religion, just world beliefs and opposition to equality by suggesting that while religion and just world beliefs predict opposition to equality for the most part, independently, they both do so through attributions for the causes of poverty.

This finding is in alignment with research that suggests those high in just world beliefs are likely to rationalise and dismiss injustices by blaming victims (Dalbert, 2009; Jost et al., 2004; Lerner, 1980). And builds upon research which suggests the religious may engage in similar rationalisation and dismissal of injustices. This research includes, (a) studies which have shown that religion predicts attributions of a range of injustices to the fault of those suffering; these injustices include, racial wealth inequality (Hinojosa & Park, 2004), unemployment (Galen & Miller, 2011) and poverty (Bergmann & Todd, 2019; Guiso et al., 2003). And (b), research which has shown relationships between religion and conservative standpoints regarding societal injustices including poverty and wealth inequality

(De La O & Rodden, 2008; Guiso et al., 2003; Huber & Stanig, 2007; Kirchmaier et al., 2018; Stegmueller, 2013). Showing that poverty attributions entirely account for relationships between religious variables and opposition to equality builds upon these findings by suggesting that increased attribution of injustices to the fault of those suffering by the religious may rationalise injustices and therefore be responsible for relationships between religion and conservative views.

In showing that relationships between religion and opposition to equality were partially accounted for by just world beliefs and entirely accounted for by poverty attributions. The present research suggests that relationships between religion and conservative views are products of the ideological beliefs and attributions for the causes of injustices which are held by the religious. These findings provide valuable insight into the impact religion has on beliefs and behaviour. The psychological impact of religion has been infamously difficult to delineate with many studies reporting findings which on the surface may appear contradictory. Past studies have shown that religious identification predicts increased volunteering (Cambell & Yonish, 2003), empathy and altruism(T. W. Smith, 2006) and charitable giving (Bekkers & Schuyt, 2008). Religious priming has been shown to predict generosity (Shariff & Norenzayan, 2007), prosocial intentions (Pichon et al., 2007) and honesty (Randolph-Seng & Nielsen, 2007). Interestingly research has also shown religion is correlated with lower efforts to create wealth equality (Stegmueller, 2013), opposition to wealth equality(Jost et al., 2014) and victim blaming those suffering in poverty(Guiso et al., 2003). Although these findings above may not seem to align, they do not necessarily contradict each other. By suggesting that relationships between religion and conservative views are products of the ideological beliefs and attributions regarding injustices, the present research provides insight into how religion can harmoniously have such widely varied impacts on adherents' behaviour. If this is indeed the case, increased opposition to equality and other conservative views among the religious is not a product of lack of empathy,

altruism, generosity or honesty, rather it is product of worldviews and understandings regarding the causes of poverty and inequality. The religious can be more generous, altruistic, empathetic and honest while simultaneously holding worldviews and understandings of poverty that lead to the dismissal and rationalization of the issue.

#### **Limitations and Directions for Further Research**

The findings above provide valuable insight into the influences that religion has on beliefs and behaviour by investigating relationships between religiousness, just world beliefs, attributions for the causes of poverty and beliefs regarding equality. These findings align with previous research by reiterating relationships between religion, just world beliefs, attributions for the causes of poverty and beliefs regarding equality. And build upon this research by suggesting possible directions of causation among these relationships. However, being an entirely correlational study, the present research does not provide any evidence that suggested causations are certainly the case.

There are many alternative causes of the relationships shown in these findings. One of these that requires addressing, is the possibility that relationships between religion, just world beliefs, poverty attributions and views on equality are caused by underlying dispositions. Past research has shown that religiousness, just world beliefs and conservative views are correlated with many of the same dispositions. These dispositions include needs for closure, needs for order, intolerance of ambiguity, lack of openness and low needs for cognition (Brandt & Reyna, 2010; Chirumbolo et al., 2004; Hennes et al., 2012; Jost et al., 2014; Jost et al., 2007; Saroglou, 2002). For a summary of this research see literature review.

Findings from the present research suggest that underlying dispositions may not be entirely responsible for relationships between religion, just world beliefs, poverty attributions and views on equality. One finding that suggests this, is the lack of relationship between

either of the religious variables and system justification. If indeed correlations between religion, just world beliefs and conservative views are due to underlying dispositions such as needs for order, needs for closure, intolerance of ambiguity, lack of needs for cognition and lack of openness to experience, one may expect a relationship between religion and belief in a just social system, regardless of whether principles and dogmas of religion and prevailing social system align. The principles and dogmas of one's religion and prevailing social system would be likely to have a negligible effect on the correlation between the two phenomena if identification of these beliefs is motivated entirely to by underlying dispositions. For example, if one identified with religion and held beliefs of a just world and social system solely because these beliefs all provide order, structure and annulment of ambiguity, one would hold these beliefs regardless of the principles and dogma of their religion and social system. The lack of relationship between religion and system justification shown in the present research suggests that a correlation between the two phenomena requires that principles of one's social system and religion are aligned, therefore, also suggesting that the principles of religious texts may be at least partially responsible for relationships between the two phenomena which have been shown in past research (e.g. Jost et al. (2014)). This finding also suggests the principles of religious texts may be partially responsible for relationships between religion, other just world beliefs and related outcomes. However, this is merely a suggestion.

By suggesting that the principles and claims of one's religious text must be aligned with the prevailing social system to see a correlation between organised religion and system justification, this research illuminates one major limitation; it's measures of religion. The measures of organised religion and religious fundamentalism used in the present research do not evenly represent the many facets of religiosity. Rather, they favour adherence to one's religious texts. The present research is also compromised by a skewed sample. The religious participants in this research were predominantly Christian. The combination of the

measures of religion and the skewed sample mean that measures of religiousness in the present research may represent evangelical Protestantism rather than religiousness.

Appendix A partially remedies this weakness by removing all participants who reported a religious affiliation other than Christian. This does not produce findings that are generalisable across religions, rather it isolates the relationships between Christianity, just world beliefs and beliefs about wealth equality. To produce findings that more accurately represent relationships between religiousness, just world beliefs and beliefs about wealth equality, future research should include measures of religiousness that measure religions many facets including spirituality and sense of community, and use a sample that is large enough to measure different religions individually.

In showing that just world beliefs only account for a small portion of the relationships between religious fundamentalism, poverty attributions and opposition to equality, and therefore, suggesting that the bulk of relationships between religion, attributions for poverty and views on equality are not caused by increased just world beliefs amongst the religious, this research poses the question: What is responsible for the bulk of these relationships?

To explore this question and address alternate causes of the relationships shown in the present study, further research which examines relationships between religion, just world beliefs, attributions for the causes of injustices and ideological views is essential.

Future research should consider the underlying dispositions associated with just world beliefs, religion, and conservative ideologies. Future correlational studies aimed at examining relationships between religion, just world beliefs, attributions and ideological views could measure and control for these dispositions. To further delineate relationships between religion and outcomes associated with just world beliefs, researchers could conduct experimental studies which examine the impact that presenting themes and claims of religious texts has on participants.

The addition of dispositions which are associated with just world beliefs, and religion to correlational studies may provide further understanding of the relationships between religion, poverty attributions and views on equality which were not entirely accounted for by just world beliefs. However, the addition of more variables could also be valuable in providing insight into the causation of these relationships. Other variables which may be valuable could be additional measures of just world beliefs and measures related to different themes and claims of religious texts.

Further weaknesses of the present study include a lack of differentiation between different religious identifications and skewed data for religious variables. Further research could use a larger sample size so different religious identifications can be addressed individually, and skewed variables can be recoded in a manner that does not significantly reduce statistical power. These weaknesses of the present research are addressed and discussed further in the appendices.

# Conclusion

This research aimed to investigate the ideological functions of religious beliefs by investigating relationships between religion, just world beliefs, attributions for the causes of poverty and views on wealth equality. It was predicted that the themes and claims of a just world which are present in religious texts would lead to increased just world beliefs and consequently, cause the religious to attribute injustices to the fault of those suffering and therefore, rationalise the injustice of wealth inequality. Spearman's correlations predominantly aligned with these predictions and previous research by showing relationships between religion, just world beliefs, attributions for the causes of poverty and opposition to

equality. Regression analyses provided further insight into these relationships by showing, (a) that fundamentalist religious beliefs entirely accounted for relationships between religion, just world beliefs, poverty attributions and opposition to equality; (b) just world beliefs partially accounted for relationships between religious fundamentalism, poverty attributions and opposition to equality; (c) poverty attributions entirely accounted for relationships between religious fundamentalism, just world beliefs and opposition to equality. These findings suggest that while religious identification is indeed associated with just world beliefs, poverty attributions and conservative views on wealth, increased just world beliefs only play a small role in the causation of these relationships. Future research could explore the role of just world beliefs in these relationships further by controlling for dispositions associated with religion and just world beliefs, including different measures of just world beliefs and possibly conducting experimental research. Although this study suggests that just world beliefs only play a small role in relationships between religion, attributions for the causes of poverty and perspectives on equality; by showing that attributions for the causes of poverty entirely accounted for relationships between religion, and opposition to equality, this research suggests that relationships between religion, opposition to equality and conceivably, other conservative views regarding injustices are not a product of lack of empathy, altruism, generosity or honesty amongst the religious. Rather they are products of beliefs regarding the causes of these issues. This finding provides insight into how the religious can harmoniously be more generous, altruistic, empathetic and honest and rationalize societal injustices such as drastic wealth inequality.

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# Appendix A: Non-Religious and Christian Data Analyses.

Because participants who reported religious affiliation were predominantly Christian, an additional series of analyses which compared just Christian participants with the non-religious was warranted. To complete these analyses, a new data set was created, this data set had all participants who reported any religious affiliation other than Christian removed, leaving 300 participants. Spearman's correlations and regression analyses were completed as with the primary analyses.

Results of these analyses are reported in Tables, A1, A2, A3 A4 and A5. Spearman's correlations completed with this data set produced results similar to those of the primary

analyses. The only notable difference being, organised religion and religious fundamentalism produced slightly stronger correlations with belief in a just world, poverty attributions and opposition to equality compared with the primary analyses.

Hierarchical linear regression analyses completed with this data set also produced results similar to those of the primary analyses. Notable differences between these results and those of the primary regression analyses include, slightly larger effect sizes produced by organised religion and slightly smaller effect sizes produced by religious fundamentalism. In hierarchical linear regression analyses with external poverty attributions and belief in a just world as dependant variables, religious fundamentalism was not a significant predictor. The addition of religious fundamentalism as an independent variable to these analyses still meant that organised religion was no longer a predictor.

The fact that organised religion produced larger effect sizes and religious fundamentalism produced smaller effect sizes in hierarchical linear regression analyses completed with this data set, suggests that, among Christians, identification with organised religion, irrespective of fundamentalist religious beliefs, may have more impact on relationships between religion, just world beliefs, poverty attributions and opposition to equality when compared with other religious beliefs.

Results of data analyses with this data set, however, were primarily the same as the initial analyses. This shows that results and conclusions of the primary analyses are applicable to Christianity and that Christian participants did not entirely account for effects shown in the primary analyses.

Table A1 Spearman's Correlations (Non-Religious and Christian Data)

	Mean ± SD	Correlation Coefficient								
		1	2	3	4	5	6	7	8	
1 Gender										
<sub>2</sub> Age	36.21±13.8	.21***								
3 Organised Religion		.17**	.17**							
4 Religious Fundamentalism	2.22±1.62	.12	.02	.60***						
5 Belief in a Just World	3.04±1.08	00	06	.18**	.26***					
6 System Justification	3.64±1.07	21**	.02	.09	.12	.60***				
Opposition to Equality	3.16±1.62	16*	.03	.17**	.28***	.39***	.49***			
8 External Poverty Attributions	3.3±.87	.21*	03	08	15*	32***	53***	61***		
9 Internal Poverty Attributions	2.72±1.14	20**	.03	.20**	.25***	.33***	.36***	.74***	43**	

Note. Organised religion has no mean or standard deviation as this scale was made up of Z scores. Internal and external poverty attributions were measured on 1-5 scales while religious fundamentalism, belief in a just world, system justification and opposition to equality were measured on 1-7 scales; mean scores to be observed accordingly.
\*\*\*.P<.001. \*\*. P<.01. \*. P<.05.

**Table A2**Predictors of Opposition to Equality (Non-Religious and Christian Data)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.09		
Gender	21	.003			
Age	02	.763			
Organised Religion	.24	.001			
Model 2			.11	.02	.022
Gender	20	.003			
Age	.00	.990			
Organised Religion	02	.862			
Religious Fundamentalism	.26	.022			
Model 3			.22	.11	<.000
Gender	18	.005			
Age	.03	.680			
Organised Religion	03	.818			
Religious Fundamentalism	.23	.030			
Belief in a Just World	.33	<.000			
Model 4			.31	.9	<.000
Gender	10	.100			
Age	01	.924			
Organised Religion	04	.708			
Religious Fundamentalism	.26	.011			
Belief in a Just World	.09	.246			
System Justification	.40	<.000			
Model 5			.69	.38	<.000
Gender	.04	.366			
Age	05	.201			
Organised Religion	.00	.964			
Religious Fundamentalism	.03	.646			
Belief in a Just World	.04	.416			
System Justificatiom	.10	.066			
Internal Poverty Attributions	.54	<.000			
External Poverty Attributions	33	<.000			

Dependent Variable: Opposition to Equality

**Table A3**Predictors of Internal Poverty Attributions (Non-Religious and Christian Data)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.10		
Gender	23	.001			
Age	05	.464			
Organised Religion	.24	.001			
Model 2			.13	.03	.005
Gender	23	.001			
Age	.07	.275			
Organised Religion	03	.820			
Religious Fundamentalism	.32	.005			
Model 3			.18	.05	<.000
Gender	21	.001			
Age	.09	.158			
Organised Religion	06	.602			
Religious Fundamentalism	.30	.007			
Belief in a Just World	.24	<.000			
Model 4			.23	.04	.001
Gender	16	.016			
Age	.08	.220			
Organised Religion	07	.537			
Religious Fundamentalism	.32	.004			
Belief in a Just World	.07	.395			
System Justification	.27	.001			

Dependent Variable: Internal Poverty Attributions

**Table A4**Predictors of Opposition to Equality (Non-Religious and Christian Data)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.10		<del></del> -
Gender	.28	<.000			
Age	03	.622			
Organised Religion	18	.007			
Model 2			.11	.01	.137
Gender	.27	<.000			
Age	05	.497			
Organised Religion	04	.729			
Religious Fundamentalism	17	.137			
Model 3			.19	.09	<.000
Gender	.25	<.000			
Age	07	.276			
Organised Religion	.00	.993			
Religious Fundamentalism	15	.183			
Belief in a Just World	30	<.000			
Model 4			.31	.12	<.000
Gender	.17	.008			
Age	05	.428			
Organised Religion	.02	.878			
Religious Fundamentalism	18	.085			
Belief in a Just World	03	.712			
System Justification	45	<.000			

Dependent Variable: External Poverty Attributions

**Table A5**Predictors of Belief in a Just World (Non-religious and Christian Data)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.05		_
Gender	03	.619			
Age	09	.162			
Organised Religion	.21	.002			
Model 2			.06	.01	.078
Gender	03	.626			
Age	06	.205			
Organised Religion	.02	.519			
Religious Fundamentalism	.22	.078			

Dependent Variable: Belief in a Just World

#### Appendix B: Data Analyses with Religious Variables Recoded

Because data for organised religion and religious fundamentalism were both skewed, additional analyses where these variables were recoded was warranted. To complete these analyses, final scores for organised religion and religious fundamentalism were recoded into approximate tertiles. Spearman's correlations and regression analyses were completed as in the primary analyses.

Results of these analyses are reported in Tables, B1, B2, B3, B4 and B5.

Spearman's correlations completed with the recoded religious variables produced results similar to those of the primary analyses. Effect sizes produced by the recoded variables varied sightly from those of the primary analyses, but fundamentally, the same correlations were shown.

Results of the hierarchical linear regression analyses completed with the recoded variables were also similar to those of the primary analyses. Notable differences between these and the primary regression analyses were, slightly smaller effect sizes, religious fundamentalism was not a significant predictor of opposition to equality (however, the addition of religious fundamentalism as an independent variable still rendered the relationship between organised religion and opposition to equality insignificant), neither organised religion nor religious fundamentalism were significant predictors of external poverty attributions and religious fundamentalism was no longer a significant predictor of internal poverty attributions after the addition of belief in a just world.

Slight differences between these and results of the primary analyses are likely the result of a loss of statistical power caused by recoding variables. Despite these discrepancies, results produced by recoded variables present predominantly the same patterns as the primary analyses, showing that primary results and conclusions are not caused by a small number of outlying responses.

Table B1 Spearman's Correlations (Religious Variables Recoded)

55 	Mean ± SD		Correlation Coefficient						
		1	2	3	4	5	6	7	8
1 Gender									
2 Age	36.21±13.8	.22***							
3 Organised Religion		.16**	.14*						
4 Religious Fundamentalism	2.22±1.62	.13*	26	.46***					
5 Belief in a Just World	3.04±1.08	07	06	.15*	.23***				
6 System Justification	3.64±1.07	25***	01	.03	.08	.58***			
7 Opposition to Equality	3.16±1.62	22***	02	.13*	.22***	.39***	.49***		
8 External Poverty Attributions	3.3±.87	.24***	03	03	10	32***	52***	63***	
9 Internal Poverty Attributions	2.72±1.14	22***	.00	.13*	.18**	.31***	.39***	.73***	44***

Note. Organised religion has no mean or standard deviation as this scale was made up of Z scores. Internal and external poverty attributions were measured on 1-5 scales while religious fundamentalism, belief in a just world, system justification and opposition to equality were measured on 1-7 scales; mean scores to be observed accordingly.
\*\*\*.P<.001. \*\*. P<.01. \*. P<.05.

**Table B2**Predictors of Opposition to Equality (Religious Variables Recoded)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.08		
Gender	26	<.000			
Age	03	.592			
Organised Religion	.16	.012			
Model 2			.10	.01	.055
Gender	27	<.000			
Age	02	.763			
Organised Religion	.09	.237			
Religious Fundamentalism	.14	.055			
Model 3			.20	.10	<.000
Gender	22	<.000			
Age	.00	.972			
Organised Religion	.08	.231			
Religious Fundamentalism	.07	.285			
Belief in a Just World	.33	<.000			
Model 4			.28	.08	<.000
Gender	15	.014			
Age	01	.808			
Organised Religion	.08	.204			
Religious Fundamentalism	.09	.200			
Belief in a Just World	.13	.068			
System Justification	.36	<.000			
Model 5			.69	.41	<.000
Gender	.00	.942			
Age	07	.066			
Organised Religion	.05	.295			
Religious Fundamentalism	.00	.937			
Belief in a Just World	.08	.079			
System Justificatiom	.04	.391			
Internal Poverty Attributions	.52	<.000			
External Poverty Attributions	37	<.000			

Dependent Variable: Opposition to Equality

**Table B3**Predictors of Internal Poverty Attributions (Religious Variables Recoded)

Variable	β	Р	R²	$\Delta R^{2}$	Р
Model 1			.07		•
Gender	25	<.000			
Age	.04	.492			
Organised Religion	.15	.019			
Model 2			.09	.02	.040
Gender	26	<.000			
Age	.06	.349			
Organised Religion	.07	.334			
Religious Fundamentalism	.15	.040			
Model 3			.13	.04	.001
Gender	23	<.000			
Age	.07	.241			
Organised Religion	.07	.341			
Religious Fundamentalism	.107	.137			
Belief in a Just World	.21	.001			
Model 4			.20	.07	<.000
Gender	16	.011			
Age	.06	.330			
Organised Religion	.07	.318			
Religious Fundamentalism	.12	.093			
Belief in a Just World	.03	.714			
System Justification	.33	.000			

Dependent Variable: Internal Poverty Attributions

**Table B4**Predictors of External Poverty Attributions (Religious Variables Recoded)

Variable	β	Р	R²	$\Delta R^2$	Р
Model 1			.08		-
Gender	.29	<.000			
Age	05	.400			
Organised Religion	07	.261			
Model 2			.09	.01	.094
Gender	.30	<.000			
Age	07	.297			
Organised Religion	.01	.920			
Religious Fundamentalism	12	.094			
Model 3			.18	.09	<.000
Gender	.26	<.000			
Age	09	.157			
Organised Religion	.00	.956			
Religious Fundamentalism	06	.383			
Belief in a Just World	30	<.000			
Model 4			.27	.09	<.000
Gender	.18	.003			
Age	07	.232			
Organised Religion	.01	.943			
Religious Fundamentalism	07	.273			
Belief in a Just World	.09	.218			
System Justification	39	<.000			

Dependent Variable: External Poverty Attributions

**Table B5**Predictors of Belief in a Just World (Religious Variables Recoded)

β	Р	R²	$\Delta R^2$	Р
		.03		
10	.120			
08	.205			
.13	.039			
		.07	.04	.001
12	.060			
06	.345			
.02	.795			
.22	.001			
	10 08 .13 12 06	10 .120 08 .205 .13 .039 12 .060 06 .345 .02 .795	.0310	.0310

Dependent Variable: Belief in a Just World

#### **Appendix C: Participant Information Sheet**

#### **Date Information Sheet Produced:**

05/05/2020

#### **Project Title**

Religion, belief in a just world and perspectives of wealth inequality.

#### An Invitation

Hello, my name is Daniel Jochems and I am inviting you to participate in my research which is part of my Master of Arts qualification.

Participation in this research would require you to complete a questionnaire that would take approximately 10-20 minutes.

I highly encourage you to participate however participation is completely voluntary.

#### What is the purpose of this research?

This purpose of this research is to identify potential psychological causes of the persisting wealth inequality in New Zealand.

This research project will also be a significant part of my Master of Arts qualification.

The findings of this research may be used for academic publications and presentations.

## How was I identified and why am I being invited to participate in this research?

You were identified to participate in this research because you respondent to one of the electronic advertisements presented on social media pages or university websites. You must be 16 years or older to participate.

#### How do I agree to participate in this research?

The completion of the questionnaire will be taken as your consent to participate. Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

# What will happen in this research?

Participating in this research will involve filling out and returning a questionnaire. This questionnaire will take 10-20 minutes and will involve questions regarding general demographic information (age, gender, income), religious identification, ideological beliefs and beliefs regarding wealth inequality and poverty.

The data will be used for the sole purpose of which it has been collected – to examine potential psychological causes of persisting wealth inequality.

#### What are the discomforts and risks?

It is unlikely that participation in this research will lead to discomfort or potential risk, however there is a small possibility that participants would rather not respond to some of the questions.

#### How will these discomforts and risks be alleviated?

These potential discomforts will be alleviated by providing a summary of the type of questions that the questionnaires will involve (above) and allowing to participants to leave any questions they would prefer not to answer or withdraw from the study at any time.

#### What are the benefits?

The benefits of this research include the assistance in achieving my Master of Arts qualification and providing information that will aim to show the psychological mechanisms which contribute to the persisting wealth inequality in New Zealand.

#### How will my privacy be protected?

Participant privacy will be protected by ensuring that questionnaire responses are completely anonymous (participants do not put names on questionnaires) and presenting data in a manner that will not present findings from a singular questionnaire response.

## What are the costs of participating in this research?

The questionnaire will take 10-20 minutes to complete.

#### What opportunity do I have to consider this invitation?

The survey will remain available until September 2020.

#### Will I receive feedback on the results of this research?

Yes, when data is collected participants will receive a URL link to summary of the findings. When data analysis and interpretation is complete participants will also receive a link to the completed thesis.

#### What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Erik Landhuis*, *erik.landhuis*@aut.ac.nz

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics* @aut.ac.nz , (+649) 921 9999 ext 6038.

#### Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

#### **Researcher Contact Details:**

Daniel Jochems, <a href="mailto:css0216@autuni.ac.nz">css0216@autuni.ac.nz</a>, 0211098562

# **Project Supervisor Contact Details:**

Erik Landhuis, erik.landhuis@aut.ac.nz, 09 921 9999 ext 6645

# Approved by the Auckland University of Technology Ethics Committee on 28/06/2020, AUTEC 20/219

## **Appendix D: Questionnaire**

Thank you for showing interest in our study!

Before proceeding with the study please confirm you have read through the information sheet.

o I have read the info sheet and want to proceed with the questionnaire

How old are you?

#### Gender

- o Male
- o Female
- o Other

Please select the ethnicity that best represents you

- o New Zealand European
- o Maori
- o Pacific Peoples
- o Asian
- o Middle Eastern
- o Latin American
- o African
- o Other

Please select your religious affiliation

- o Buddhism
- o Christian
- o Hinduism
- o Islam
- o Judaism

- o Maori Religions, Beliefs and Philosophies.
- Spiratualism and New Age Religions
- o Other Religion, Beliefs and Philosophies
- o No Religion

Below is a series of questions regarding your religious experience. Please select the answer that best represents your view.

What is the importance of being religious to you?

- o Not at all important to me
- o Slightly important to me
- o Moderately important to me
- Very important to me

How often do you attend religious worship services at a church or congregation?

- o Never
- o Very rarely (1-5 times per year)
- o Rarely (6-11 times per year)
- o Monthly
- o Weekly
- o More than once a week

How important is it to you to attend religious activities?

- o Not at all important to me
- Slightly important to me
- o Moderately important to me
- o Very important to me

Below is a list of statements about possible attitudes or beliefs you may or may not have toward the Sacred Writing of your religion. You should consider the words "Sacred Writing" to be the Book or Scriptures that are most Holy in your own religion (e.g., the Bible, Qur'an, Bhagavad Gita, etc.). As you carefully read each statement below, please rate your

disagreement or agreement with it. (If you are not religious, please consider the words "Sacred Writing" to refer to religious holy texts in general.)

Everything in the Sacred Writing is absolutely true without question.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

The Sacred Writing should never be doubted, even when scientific or historical evidence outright disagrees with it.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

The Sacred Writing is NOT really the words of God, but the words of man.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

The truths of the Sacred Writing will never be outdated, but will always apply equally well to all generations.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

The Sacred Writing is the only one that is true above all Holy Books or sacred texts of other religions

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Below is a list of statements about possible attitudes or beliefs you may have regarding fairness of the world. As you carefully read each statement below, please rate your disagreement or agreement with it.

Justice always prevails over injustice.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Injustices in all areas of life (e.g., professional, family, politics) are the exception rather than the rule.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

People try to be fair when making important decisions.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

In the long run people will be compensated for injustices.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

People get what they deserve.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree

- o Disagree
- o Strongly disagree

Basically, the world is a fair place.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Below is a list of possible attitudes you may have towards New Zealand's current societal system. As you carefully read each statement below, please rate your agreement or disagreement with it.

In general, you find society to be fair

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

In general, the New Zealand political system operates as it should

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree

## o Strongly disagree

New Zealand society needs to be radically restructured

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

New Zealand is the best country in the world to live in

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Most policies serve the greater good

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Everyone has a fair shot at wealth and happiness

- o Strongly agree
- o Agree

- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Our society is getting worse every year

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Society is set up so that people usually get what they deserve

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Below is a list of statements about possible attitudes or beliefs you may have regarding income and wealth equality. As you carefully read each statement below, please rate your disagreement or agreement with it.

Incomes should be more equal, because everybody's contribution to society is equally important.

- o Strongly agree
- o Agree
- o Somewhat agree

- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

If incomes were more equal, nothing would motivate people to work hard.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Incomes cannot be made more equal because it's human nature to always want more than others have

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Making incomes more equal means socialism, and that deprives people of individual freedoms.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Incomes should not be more equal because the rich invest in the economy and that benefits everyone.

- Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

If incomes were more equal, life would be boring because people would all live in the same way.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Disagree
- o Strongly disagree

Incomes should not be made more equal because that would keep people from dreaming of someday becoming a real success.

- o Strongly agree
- o Agree
- o Somewhat agree
- o Neither agree nor disagree
- Somewhat disagree
- o Disagree
- o Strongly disagree

Below is a list of possible causes of poverty. As you carefully read each possible cause below, please rate how important you believe they are as a cause of poverty.

## Prejudice and discrimination in hiring

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

# Failure of industry to provide enough jobs

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## A government which is insensitive to the plight of the poor

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Prejudice and discrimination in promotion and wages

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Being taken advantage of by the rich

- o Extremely important
- o Very important

- o Moderately important
- o Slightly important
- o Not at all important

## Not having the right "contacts" to help find jobs

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Not inheriting money from relatives

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Lack of effort and laziness by the poor

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## No attempts at self-improvement

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Lack of thrift and proper money management

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Alcohol and drug abuse

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Loose morals among poor people

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## A lack of motivation caused by being on welfare

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## The breakdown of the nuclear family

- o Extremely important
- o Very important
- o Moderately important

- o Slightly important
- o Not at all importan

## Having to attend bad schools

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## Being born into poverty

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

## The types of jobs that the poor can get are often low paying

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important

# Being born with a low IQ

- o Extremely important
- o Very important
- o Moderately important
- o Slightly important
- o Not at all important