

# Christians and the Parable of the Vineyard Workers: Christianity, distributive justice perception, and job satisfaction

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## Abstract

**Purpose** – Despite recent efforts to link religion with job satisfaction, the current state of research lacks the knowledge of why there may be a positive relationship between the two variables. This study tries to fill this gap by testing the notion that Christians are more likely to exhibit a higher level of distributive justice perception, which leads to a higher level of job satisfaction. The study also tries to identify Christianity as the moderator in the relationship between distributive justice and job satisfaction.

**Design/methodology/approach** – This study uses secondary data. The study analyzes 13,289 employees in 27 countries in the 2010 European Social Survey, which contains information on the levels of distributive justice perceptions and job satisfaction, as well as the religious affiliations of the respondents. The country fixed effect regression analysis was conducted.

**Findings** – The analyses first reveal that Protestants, compared to non-Protestants, exhibit a higher level of distributive justice perception, which leads to a higher level of job satisfaction. The analyses also demonstrate that the positive relationship between distributive justice perception and job satisfaction is weaker for Protestants than non-Protestants. These relationships, however, were not evident for people affiliated with other denominations of Christianity.

**Practical implications** – Protestant employees are likely to maintain a higher level of distributive justice perception, and distributive justice perception matters less in shaping their job satisfaction. As a result, organizations may want to focus more on the other aspects of organizational justice, such as procedural and interactional justices in managing protestant employees, if maintaining job satisfaction level is a concern. With many “Christian-based” companies operating and being supported in today’s economy, the findings in this study can be useful to these organizations that are more likely to attract and have Christians as their employees.

**Originality/value** – The current study provides evidence that employees’ religious affiliation (i.e. Protestantism in this case) can be a predictor of job satisfaction through the mediation of distributive justice perception. It also offers a basis for future studies on employee morale (e.g. job satisfaction and justice perceptions) to consider religious factors. Finally, the findings also identify Protestant affiliation as a moderator in the distributive justice–job satisfaction relationship.

**Keywords** Christianity, Distributive justice perception, Job satisfaction

**Paper type** Research paper

## Introduction

Despite an ongoing and increasing interest in the connection between spirituality and religious factors on the one hand and employee and organizational values, attitudes, and outcomes on the other (Aboramadan and Dahleez, 2021; Brotheridge and Lee, 2007; Chan-Serafin *et al.*, 2013; Tracey, 2012), management scholars possess only a limited



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understanding of how these factors produce the effects with which they are correlated (Dubey and Bedi, 2024). For example, despite recent efforts to establish a link between religion and job satisfaction (e.g. Bal and Kökalan, 2021; Ghazzawi *et al.*, 2016; Neubert and Halbesleben, 2015), scholars still know relatively little about the relationship, in particular why this link exists or how it might work. Given the established correlation of job satisfaction with critical managerial outcomes such as absenteeism, citizenship behavior, turnover, and job performance (e.g. Carsten and Spector, 1987; Hackett and Guion, 1985; Judge *et al.*, 2001; Organ and Konovsky, 1989), this link between religion and job satisfaction is one for which additional scholarly efforts are clearly warranted.

Therefore, the first objective of this study is to fill this gap in the literature by identifying and investigating one possible mediator between religion and job satisfaction. Specifically, we hypothesize and empirically test whether perceptions regarding distributive justice (Cohen, 1987; Jasso *et al.*, 2016) mediate the relationship between Christianity and job satisfaction.

Although there have been various studies examining the relationships between distributive justice perception and employee outcomes, such as job satisfaction (Clay-Warner *et al.*, 2005), our knowledge of when distributive justice perception becomes more (or less) important in shaping these outcomes is limited (Clay-Warner *et al.*, 2005; Hu and Han, 2021). More importantly, efforts to examine the possibility of religion as a moderator in the relationship between distributive justice perception and employee reactions have been limited (Khan *et al.*, 2015) despite the emerging interest in the influence of spirituality and religious factors on employee attitudes and behavior (Chan-Serafin *et al.*, 2013; Dubey and Bedi, 2024).

Therefore, the second objective of this research is to investigate whether Christianity functions as a moderator in the relationship between distributive justice perception and job satisfaction. Specifically, we test the theory that distributive justice perception matters less to Christians than to non-Christians.

Lastly, although distributive justice perception has been studied widely due to its relationship with important employee outcomes such as commitment, job satisfaction, trust, turnover intention, and productivity (Cohen-Charash and Spector, 2001; Viswesvaran and Ones, 2002), there has been a call in the literature to consider a broader range of demographic characteristics when attempting to predict distributive justice perception (Cohen-Charash and Spector, 2001). To date, relevant studies in the literature have focused on three categories of distributive justice antecedents (e.g. Phuong, 2018; Steiner, 2001; Taneja *et al.*, 2023): structural factors (e.g. how compensation and appraisal policies are administered), support-related factors (e.g. trust in management and perceived organizational support), and cultural factors (e.g. power distance or individualism). Given these existing foci, the possibility of religious factors as a meaningful predictor of distributive justice perception has not been considered.

As a result, the final objective of our study is to examine Christianity as a possible antecedent of distributive justice perception. Consistent with the call above, this expands the range of demographic characteristics to include religion as a new factor that may predict distributive justice perception.

In summary, this study offers several new insights. First, it explains why religious beliefs positively impact job satisfaction. Second, it identifies an additional moderator that influences how fairness perceptions affect job satisfaction. Finally, it introduces a new factor that can predict perceptions of fairness.

## Theory and hypotheses

### *Equity theory and the parable of the Vineyard Workers*

Consider the following parable from the book of Matthew:

<sup>1</sup> “For the kingdom of heaven is like a landowner who went out early in the morning to hire workers for his vineyard. <sup>2</sup> He agreed to pay them a denarius for the day and sent them into his vineyard. <sup>3</sup> About nine in the morning he went out and saw others standing in the marketplace doing nothing. <sup>4</sup> He told them, “You also go and work in my vineyard, and I will pay you whatever is right.” <sup>5</sup> So they went. He went out again about noon and about three in the afternoon and did the same thing. <sup>6</sup> About five in the afternoon he went out and found still others standing around. He asked them, “Why have you been standing here all day long doing nothing?” <sup>7</sup> “Because no one has hired us,” they answered. He said to them, “You also go and work in my vineyard.” <sup>8</sup> “When evening came, the owner of the vineyard said to his foreman, ‘Call the workers and pay them their wages, beginning with the last ones hired and going on to the first.’” <sup>9</sup> The workers who were hired about five in the afternoon came and each received a denarius. <sup>10</sup> So when those came who were hired first, they expected to receive more. But each one of them also received a denarius. <sup>11</sup> When they received it, they began to grumble against the landowner. <sup>12</sup> “These who were hired last worked only one hour,” they said, “and you have made them equal to us who have borne the burden of the work and the heat of the day.” <sup>13</sup> But he answered one of them, “I am not being unfair to you, friend. Didn’t you agree to work for a denarius?” <sup>14</sup> “Take your pay and go. I want to give the one who was hired last the same as I gave you.” <sup>15</sup> “Don’t I have the right to do what I want with my own money? Or are you envious because I am generous?” <sup>16</sup> “So the last will be first, and the first will be last.” (New International Version Bible, 1984: Matt. 20:1–16)

The above passage is known as the Parable of the Vineyard Workers. It is a well-known parable to Christians everywhere that has also been widely studied by both academic and practicing theologians (i.e. members of the clergy; Francis *et al.*, 2022; John, 2007; Rathbone, 2023). The pay system utilized by the owner of the vineyard in this passage, however, is in direct conflict with the principles of fairness first articulated in the well-known equity theory (Adams, 1965). Equity theory is a general motivation theory that is predicated upon our inherent propensities toward fairness in the distribution of resources. Since its original formulation, it has been frequently and widely applied across varied domains such as management (Huseman *et al.*, 1987), social justice (Hatfield *et al.*, 2011), marriage and sexuality (Guerrero *et al.*, 2008), and behavioral economics/game theory (Gill and Stone, 2010), to name a few. More germane to the present study, equity theory and the constituent elements of its theoretical framework have been applied many times within management-related literature to refine and clarify our theoretical understanding of workplace compensation (Alterman *et al.*, 2021; Dulebohn and Martocchio, 1998; Folger and Konovsky, 1989; Schneider and Valet, 2017; Shore, 2004; Xu *et al.*, 2024). According to the theory (Adams, 1965), people become motivated to take action to restore equity (i.e. distributive justice) whenever they perceive that an inequity exists (e.g. a low level of distributive justice). The theory also explains that one’s equity perception is determined by comparing the output-to-input ratios for oneself and others. In an employment setting, the input is comprised of an employee’s various factors (e.g. performance, experience, skills, work hours, and effort) that can contribute to the value or success of the employer. The output, in contrast, can be viewed as various rewards that an employee can receive (e.g. pay, recognition, promotion, and job security) in return for their input. For example, the theory predicts that if Employees A and B are both equally high performers who receive the same amount of pay under the same conditions, both employees will perceive the situation as equitable, and no actions to correct a perceived injustice will be taken by either party. However, if Employee A is a high performer and Employee B is a low performer, but the two employees receive the same salary amount in similar contexts, Employee A will perceive an inequity and will take action to restore a balanced output-to-input ratio with Employee B. This action could consist of reducing the amount of effort expended, demanding higher pay, or looking for another employer or work situation where no perceived injustice of this type is present. Multiple studies have corroborated Equity Theory’s claims by showing that when employees perceive inequity or a low level of distributive justice, they feel unsatisfied and

engage in behaviors that can negatively affect the employer (e.g. [Berg, 1991](#); [Cohen-Charash and Spector, 2001](#); [Greenberg, 1990](#); [Xu et al., 2024](#)).

Viewed through an equity theory lens, the behavior of the employees in the parable above can be readily accounted for; particularly those employees hired earlier in the day. According to the parable, the owner of the vineyard hires employees at four different times: at approximately 9:00 a.m., noon, 3:00 p.m., and 5:00 p.m. The owner then requires all the employees to work until 6:00 p.m. So, the four groups of employees work for different numbers of hours (e.g. nine hours for employees hired at 9:00 a.m. versus one hour for employees hired at 5:00 p.m.), which can be viewed as different levels of input. However, at the end of the day, all the workers are paid the same amount (i.e. one denarius), which can be viewed as the same level of output. The output-to-input ratios are, therefore, different for the four groups. Thus, the workers who started to work at 9:00 a.m. feel underpaid relative to those hired later, and this results in a low level of distributive justice perceptions and satisfaction and the consequent manifested behaviors (i.e. complaining) to attempt to restore a sense of equity.

Many theologians interpret this parable analogically to highlight how the goodness and mercy of God far surpass the human conceptions of justice or rewards ([Vearncombe, 2010](#)). In a similar vein, other scholars argue that this passage emphasizes that salvation is attained only through the grace of God and not by justice, rights, or human effort ([Capps, 2012](#)). Consistent with these arguments, many pastors utilize this parable in their sermons to emphasize that the faithful should not expect more grace or rewards from God as a simple function of how long ago they converted to the faith or how hard they have worked for God's kingdom and glory (e.g. [Stillman, 2020](#)). In other words, the economy of heaven is not the same as the economy of earth.

#### *Christianity and distributive justice perception*

Through the Parable of the Vineyard Workers, Jesus is teaching his followers to adhere less to the fairness principles of the world by saying that the kingdom of heaven is like the owner of the vineyard. As with so many biblical parables, this parable was originally delivered to and distributed by the early disciples to bring into sharp relief the paradoxical values of the kingdom of heaven ([Wenham et al., 1994](#)) and thus to inform and shape believers' spiritual and religious perspectives rather than their earthly perspectives. In other words, it was meant to shock its hearers into seeing things in a new light by pointing beyond its everyday context to elucidate greater and more significant truths ([Tasker and Marshall, 1996](#)). Thus, while the principle point of this parable is not to teach believers how to manage a successful enterprise or to be a good employee, this is not to say that this and other parables offer nothing of value to be applied to everyday contexts. Indeed, Christians and adherents of other belief systems, both secular and sacred, have wrestled with the universal tension between the quotidian world as they experience it and the world as they wish it were, as they believe it ought to be, or as they hope it someday will become.

However, the broader and manifold processes by which religious and other shared belief systems and values are codified and operationalized within institutions and organizations—as well as internalized and practiced by the individual people who comprise them—are both highly complex and well beyond the scope and limitations of the present study. So, the brief discussion that follows should be received with a clear understanding of its necessarily ad hoc and cursory nature.

Consistent with, and perhaps analogous to, this hyperlinking structure of parables that connects one context to another, modern scholars have shown that in spite of our occasional efforts to compartmentalize and limit the overlap between different domains of our existence, such overlap necessarily occurs, and further, perhaps needs to ([Ammons and Edgell, 2007](#); [Rozuel, 2011](#)). This overlap often occurs when the knowledge, values, interactions, and

evaluations occurring within and applied to objects, persons, and situations in one domain are analogously applied in another domain; a phenomenon also referred to as spillover effects (Acs *et al.*, 2013; Evans and Bartolome, 1984). Among other areas, these effects have been noted to occur at the nexus of work and faith (Dust and Greenhaus, 2013); thus, it is possible that religious beliefs can affect how people think and act in their ostensibly secular or non-religious lives, including their work life. If this is true, and if teachings such as in the Parable of Vineyard Workers spill over into the work lives of Christians, it is possible that their overall distributive justice perception will be higher than that of non-Christians since Christians' comparison of their own rewards relative to those of their coworkers should matter less.

Spillover refers to one domain of a person's life affecting another domain of his or her life (Evans and Bartolome, 1984). The spillover hypothesis, in a work context, posits that a person's experience in nonwork life carries over to his or her work arena (and vice versa), and thus, a convergence, entrainment, or continuity of affect, expectations, and behavior develops between the two domains (Staines, 1980). For example, a study by Williams and Alliger (1994) demonstrates that both pleasant and unpleasant moods from family experience spill over to work experience. In a similar vein, a study by Ilies *et al.* (2009) illustrates that workers' daily job satisfaction at work affects their marital satisfaction at home.

Various studies of religion have shown that religious affiliation and practice positively affect work lives, thus fostering job satisfaction (e.g. Ghazzawi *et al.*, 2016; Martinson and Wilkening, 1983; Yousef, 2001). For example, employees who abide by certain religious teachings (e.g. helping others and being honest and conscientious) create fewer workplace conflicts, which helps contribute to a more pleasant work life and environment (Ghazzawi *et al.*, 2016). In other words, these studies provide some support to the argument that religious beliefs spill over to work life and affect work attitudes and behaviors.

From this line of reasoning, we can also expect that the teachings from the Parable of the Vineyard Workers can spill over to the work lives of Christians and affect their attitudes and behaviors. One important work attitude that can be affected by the teaching is distributive justice perception. Distributive justice perception refers to the perceived fairness related to the amount of reward that employees receive (Folger and Konovsky, 1989). In determining the fairness of the amount, employees often utilize the principle of equity (Adams, 1965) by comparing their own output-to-input ratio to another's output-to-input ratio.

In the Parable of the Vineyard Workers, Jesus asks his followers not to be strictly governed by the equity principle when adjudicating the fairness of rewards. In particular, Christians are expected to be content with their rewards regardless of how long they have believed and followed or how hard they have worked for God. Within the field of management studies, these dynamics and distinctions are arguably best represented by the categories reflecting different types of equity sensitivity (Huseman *et al.*, 1987). Specifically, Jesus is asking his followers to be *benevolents* rather than to be *equity sensitives* or *entitleds* (Huseman *et al.*, 1987).

Equity sensitivity refers to the individual differences in how strongly a person adheres to the principles of equity theory (Huseman *et al.*, 1987). Using the measurement of equity sensitivity, Huseman *et al.* (1987) classify individuals into one of three groups: *equity sensitives*, *benevolents*, or *entitleds*. Equity sensitives are the individuals whose perceptions and behaviors are most consistent with the principles of equity theory. Persons whose behaviors deviate from what the theory predicts do so for one of two possible reasons: either they tolerate or prefer inequity that puts themselves in a favorable position relative to others (entitleds) or else that puts others in a favorable position relative to themselves (benevolents). In other words, benevolents prefer their own output-to-input ratios to be less than others' and are therefore relatively comfortable being underpaid, while entitleds prefer their own output-to-input ratios to be greater than others' and prefer to be overpaid (King *et al.*, 1993).

If the teaching from the parable spills over to work lives, we can expect Christians to be on the benevolent end of the spectrum—to be less sensitive to differences in output-to-input ratios in determining their perception of fair compensation. As a result, Christians can perceive the rewards from their work to be fairer, resulting in a higher level of distributive justice perception. Supporting this argument, a study by [Deconinck and Bachmann \(2007\)](#) illustrates a positive relationship between benevolence and pay fairness perception. In a similar vein, benevolents have demonstrated a higher level of job satisfaction than either equity sensitives and entitleds when under-rewarded (although the difference between benevolents and equity sensitives was not statistically significant; [King et al., 1993](#)). Thus, we hypothesize as follows.

*H1.* There is a positive relationship between Christianity and distributive justice perception. In other words, Christians will demonstrate a higher level of distributive justice perception than non-Christians.

Some readers might be tempted to argue that deriving the above hypothesis on the basis of a single parable from the Bible is committing an error of hasty generalization. However, this criticism or claim would only be valid if this parable stands alone rather than as a proxy or index of broader themes that are present throughout the Bible. But the key theme of the Parable of the Vineyard Workers (i.e. both the difficulty and the necessity of God's followers coming to terms with God's benevolence and mercy to all) is present throughout the Bible, including in many of Jesus's best-known parables such as the Prodigal Son (Luke 15: 11–32) and the Good Samaritan (Luke 10:25–37).

Furthermore, the recorded utterances of Jesus, as well as the assembled written Gospel narratives, both display forms of parallelism ([Burney, 1925](#)), a literary device that serves to enhance the beauty, clarity, and recollection of the ideas being conveyed. Unlike English poetry, which features rhyme and repetition schemes based on similarities in spoken pronunciations, ancient Hebrew poetry and prose alike have structures based on parallelism, which is a rhyme and repetition scheme based on similarities in meanings or ideas. Both Jesus and the Gospel writers used this familiar rhyming of ideas to group related teachings together to clarify their meaning. According to [Lewis \(2001\)](#), the difficulty of communicating truths about God and heaven lies in that doing so requires the use of earthly images, which is why multiple images are often used in conjunction to compensate for the limitations of any one image. Thus, it is not surprising that the events and anecdotes that immediately precede and follow the Parable of the Vineyard Workers contain the echo of ideas from this parable. Just as the Parable of the Vineyard Workers concludes with Jesus saying, “So the last will be first, and the first will be last” (Matthew 20:16), the Parable of the Rich Young Ruler, which immediately precedes the focal parable in this study, ends with “But many who are first will be last, and many who are last will be first” (Matthew 19:26). Likewise, immediately following the focal parable, and while discussing with his disciples who will be greatest in the Kingdom of God, Jesus utters a very similar idea: “whoever wants to become great among you must be your servant, and whoever wants to be first must be your slave” (Matthew 20:26–27).

While there are arguments that Jesus recognizes various types of justice throughout his parables ([Kim, 2019](#)), on the basis of the above and other evidence from the Bible, it is clear that Jesus expects his followers to forgo the natural human inclination toward equity and entitlement in favor of a form of heavenly benevolence.

### *Christianity and job satisfaction through distributive justice perception*

Job satisfaction refers to an evaluation of one's experience in his or her job ([Locke, 1976](#)). Job satisfaction has been studied extensively by management researchers due to its correlations with important managerial outcomes such as absenteeism, citizenship behavior, turnover,

and job performance (e.g. Carsten and Spector, 1987; Hackett and Guion, 1985; Judge *et al.*, 2001; Organ and Konovsky, 1989).

Employees utilize justice information, including the perception of distributive justice, as a heuristic in guiding and forming their overall attitude toward their job and their employing organization (Cropanzano *et al.*, 2001; Loi *et al.*, 2009). As a result, when employees feel that the outcome given to them is fairer (i.e. a higher level of distributive justice perception), they develop a more favorable attitude toward their job, thus leading to a higher level of job satisfaction. In alignment with this argument, various studies, including meta-analyses, demonstrate a positive relationship between distributive justice perception and job satisfaction (e.g. Colquitt *et al.*, 2001; Viswesvaran and Ones, 2002).

We have already hypothesized a positive relationship between Christianity and distributive justice perception above (Hypothesis 1). Given the positive relationship between distributive justice perception and job satisfaction is documented in the literature, we hypothesize the following by extension.

*H2.* Distributive justice perception mediates the relationship between Christianity and job satisfaction.

If this mediating structure exists as hypothesized here, Christianity will be positively related to distributive justice perception, and distributive justice perception will be positively related to job satisfaction. In other words, Christians will demonstrate a higher level of job satisfaction by demonstrating a higher level of distributive justice perception than non-Christians.

#### *Christianity moderating the relationship between distributive justice perception and job satisfaction*

As discussed in the previous section, employees utilize distributive justice perception as a heuristic in deciding how much they are satisfied with their own jobs. However, the importance of distributive justice perception in shaping job satisfaction can differ depending on the context. In other words, the strength of the distributive justice perception as a heuristic can be stronger or weaker depending on circumstances. For example, in a study by Haar and Spell (2009), the positive relationship between distributive justice and job satisfaction was much weaker when the level of job autonomy was high. The authors in this study speculate that employees view autonomy as another form of compensation and thus are more satisfied with their pay level when the level of autonomy is high. Under this situation, where the perceived compensation level is already high due to the autonomy given, the perception of distributive justice matters less in shaping job satisfaction. In a similar vein, a study by Khan *et al.* (2015) demonstrates a negative relationship between distributive justice perception and turnover intention. However, this relationship became null under the condition of a high Islamic Work Ethic. The authors suspect that Islamic teachings, which highlight hard work, human dignity, and loyalty (Ali, 1992), serve as a buffer for the negative emotions that can arise in the absence of organizational justice. These examples (Haar and Spell, 2009; Khan *et al.*, 2015) provide some support to the notion that the effect of distributive justice on shaping employee attitudes can be moderated by various contexts.

From a similar line of reasoning, we can expect the positive effect of distributive justice perception on job satisfaction to be weaker for Christians. In other words, the perception of distributive justice matters less for Christians in shaping their job satisfaction. If the teachings of Jesus command his followers to be benevolent and thus to be less sensitive about distributive justice, Christians will be less inclined to utilize distributive justice perception as a heuristic to guide and form their overall attitude toward the job. Moreover, when Christians encounter a situation that lacks distributive justice, the teachings of Jesus can act as a buffer,

thereby attenuating the effect of the situation negatively affecting job satisfaction. Providing some support to this argument, a study by King *et al.* (1993) shows that the relationship between distributive justice perception and job satisfaction for benevolents was weaker than for equity sensitives or entitlements (although the differences in the relationships were not statistically significant). This leads to our next hypothesis.

- H3. Christianity moderates the relationship between distributive justice perception and job satisfaction in that the relationship is less positive for Christians than for non-Christians.

The hypothesized model is depicted in Figure 1.

### Method

#### Overview and sample

To test the three hypotheses presented, we have analyzed the 2010 European Social Survey (ESS). The ESS measures various beliefs, attitudes, and behavior patterns of people in multiple countries within Europe, and its suitability for use in academic research is well-established (e.g. Billiet *et al.*, 2014; Davidov *et al.*, 2008). The ESS has been implemented every two years since 2002, and while the data from 2002 to 2018 ESS [1] were publicly available at the time this research was conducted, the 2010 ESS was the most recent version of the survey that contained all the variables of interest in the present study (i.e. Christianity, distributive justice perception, and job satisfaction). Individual participants in the ESS are aged 15 or older and are selected via random probability methods at all stages. For our analysis, we have included people who were currently working at the time of the survey and who have identified themselves as an employee (excluding business owners, students, etc.). Excluding missing data, the final sample consisted of 13,289 workers in 27 countries. The use of this dataset is appropriate for the purpose of our research as it contains all the variables of our interest as well as good variation in the predictor (i.e. about 50 to 50 split between Christians vs. non-Christians; see the section “Descriptive statistics” for further details). For a more

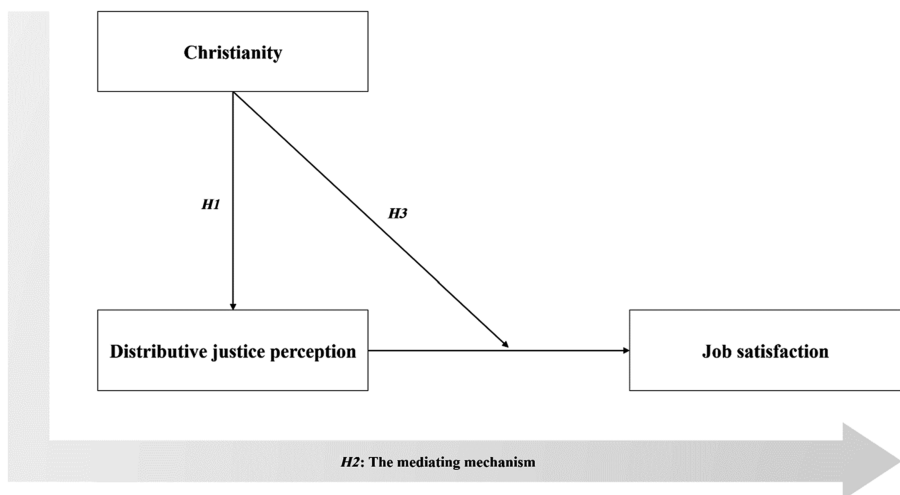


Figure 1.  
Hypothesized model

Source(s): Figure by authors

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detailed explanation of the survey methodology (e.g. sampling procedure), please refer to ESS's methodology webpage [2].

### *Measures*

*Job satisfaction.* Job satisfaction was measured by asking the employees the following question: How satisfied are you in your main job? The measure was on an eleven-point scale, with 0 denoting extremely dissatisfied and 10 denoting extremely satisfied. The construct was measured through a single item, and the reliability of the measure could not be validated. However, the study by [Wanous et al. \(1997\)](#) demonstrates that measuring job satisfaction with a single-item measure is relatively robust.

*Distributive justice perception.* Distributive justice perception was measured by asking to what extent the employees agree or disagree with the following question: Considering all my efforts and achievements in my job, I feel I get paid appropriately. The measure was on a five-point scale with 1 denoting disagree strongly and 5 denoting agree strongly [3]. The measure is closely related to the “appropriateness” of the outcome, which reflects one of the four distributive justice perception items developed by [Colquitt \(2001\)](#). Colquitt's original appropriateness item had the strongest factor loading, on average, among the four items in conducting confirmatory factor analysis ([Colquitt, 2001](#)). The construct was measured through a single item, and the reliability of the measure could not be validated. This limitation is duly acknowledged in this study.

*Christianity.* Respondents who have identified either Protestant, Roman Catholic, Eastern Orthodox, or other Christian denominations as their religion were coded as Christians (1). Respondents who indicated to be belonging to other religions or having no religion at all were coded as non-Christians (0).

*Controls.* The control variables were selected based on past studies related to job satisfaction (e.g. [Judge and Kammeyer-Mueller, 2012](#); [Weaver, 1978](#)) and distributive justice perception ([Colquitt et al., 2001](#); [Viswesvaran and Ones, 2002](#)), which are the dependent and mediating variables in this study, and also the availability in the ESS. Detailed explanations of these variables can be found in the [Appendix](#). Occupation and some individual characteristics (e.g. gender, age, the highest level of education, managerial status, pay level, and organizational tenure) are controlled. Some job characteristics that can affect distributive justice perception and job satisfaction (e.g. whether wage depends on effort, the intensity of work in terms of effort, and having enough time to do the work given) were also controlled.

### *Test of common method bias*

As all the measures in the dataset originated from a single source, we tested for the presence of common method bias ([Podsakoff et al., 2003](#)) utilizing Harman's One-Factor Test ([Harman, 1967](#)). The method was also used to examine the risk in recent job satisfaction- and distributive justice perception-related studies (e.g. [Aggarwal et al., 2022](#); [Silic et al., 2020](#)). The total variance extracted by one factor was less than 50% (4.15% for the model with all the variables and 19.87% for the model with Christianity, distributive justice perception, and job satisfaction variables), indicating common method bias was not present in our study.

### *Analysis model*

Considering the data structure of employees nested within countries, we have utilized the country fixed effect regression model to predict job satisfaction and distributive justice perception. The results of the Hausman tests ([Hausman, 1978](#)) supported our choice of modeling through country fixed effect over random effect for each outcome variable (job

satisfaction:  $\chi^2(20) = 288.34, p < 0.01$ ; distributive justice perception:  $\chi^2(20) = 45.57, p < 0.01$ ). For a more intuitive interpretation of the results, the dependent (i.e. job satisfaction) and mediating (i.e. distributive justice perception) variables are standardized.

## Results

### *Descriptive statistics*

The means, standard deviations, and correlations among the study variables are outlined in [Table 1](#). Some important points to note include the mean values of *Christianity: All* (0.503), *Christianity: Protestants* (0.153), *Christianity: Catholic* (0.243), *Christianity: Eastern Orthodox* (0.095), and *Christianity: Other* (0.012). This shows that about half of the respondents in the survey have identified themselves as Christians. Among Christians, Roman Catholic was the most prevalent denomination, with about 48% ( $=0.243/0.503$ ) of the Christians identifying themselves as Roman Catholics. The proportions of Christians by denomination and country are outlined in more detail in [Table 2](#). Another notable feature in [Table 1](#) is the relatively strong positive correlations between Protestants and job satisfaction and distributive justice perception compared to other denominations of Christianity ( $r$  between Protestants and job satisfaction = 0.103,  $p < 0.01$ ;  $r$  between Protestants and distributive justice perception = 0.070,  $p < 0.01$ ).

### *Analysis results*

*The relationship between Christianity and distributive justice perception (Hypothesis 1).* The country fixed effect regression results predicting distributive justice perception are reported in [Table 3](#). The coefficient of Christianity (All) is significantly positive (coefficient = 0.038, SE = 0.018,  $p < 0.05$ , Model A2). Thus we found support for [Hypothesis 1](#). However, when the effect of Christianity is examined by denomination, we found support for [Hypothesis 1](#) only in the case of Protestants (coefficient for Protestant = 0.054, SE = 0.026,  $p < 0.05$ , Model A3; coefficient for Roman Catholic = 0.009, SE = 0.024, ns, Model A4; coefficient for Eastern Orthodox = 0.043, SE = 0.044, ns, Model A5; coefficient for Other Christian = -0.009, SE = 0.076, ns, Model A6).

Although not the main interest of our study, pay level (e.g. coefficient = 0.318, SE = 0.017,  $p < 0.01$ , Model A2) and organizational tenure (e.g. coefficient = 0.003, SE = 0.001,  $p < 0.01$ , Model A2) were positively correlated with distributive justice perception throughout all six models outlined in the table. This is in alignment with earlier results in the literature (e.g. [Cohen-Charash and Spector, 2001](#)). However, at the same time, age and gender (female) were negatively correlated with distributive justice, which contradicts the findings by [Cohen-Charash and Spector \(2001\)](#). The mixed results may indicate the need to consider various contextual factors in examining the relationships between these factors and distributive justice perception.

*Distributive justice perception mediating the relationship between Christianity and job satisfaction (Hypothesis 2).* The country fixed effect regression results predicting job satisfaction are reported in [Table 4](#). First, as we have examined in the earlier section, the relationship between Christianity and distributive justice perception is significantly positive. Second, the relationship between Christianity (All) and job satisfaction is significantly positive (coefficient = 0.078, SE = 0.019,  $p < 0.01$ , Model B2 in [Table 4](#)). Third, the relationship between distributive justice perception and job satisfaction is significantly positive (coefficient = 0.260, SE = 0.009,  $p < 0.01$ , Model B3 in [Table 4](#)). Finally, when distributive justice perception is entered into the model, the effect size of Christianity (All) on job satisfaction is decreased (coefficient = 0.068, SE = 0.018,  $p < 0.01$ , Model B3 in [Table 4](#)). This effect size is decreased by about 13% ( $= [0.078 - 0.068] / 0.078$ ). We have calculated the

Variables	Mean	s.d.	1	2	3	4	5	6	7	8
1. Job satisfaction	7.353	1.919								
2. Distributive justice perception	3.070	1.107	0.298							
3. Christianity: All	0.503	0.500	0.028	-0.021						
4. Christianity: Protestants	0.153	0.360	0.103	0.070	0.422					
5. Christianity: Roman Catholic	0.243	0.429	-0.013	-0.051	0.564	-0.241				
6. Christianity: Eastern Orthodox	0.095	0.294	-0.057	-0.044	0.322	-0.138	-0.184			
7. Christianity: Other	0.012	0.107	-0.006	-0.006	0.108	-0.046	-0.061	-0.035		
8. Job characteristics: Pay depends on effort	1.852	1.020	-0.004	0.103	-0.023	-0.070	-0.016	0.070	0.003	
9. Job characteristics: Requires working hard	2.247	0.947	0.043	0.102	-0.050	0.017	-0.052	-0.026	-0.014	-0.103
10. Job characteristics: Not enough time to get the job done	2.958	1.145	0.049	0.057	0.008	-0.051	0.019	0.054	-0.016	-0.018
11. Female	0.503	0.500	0.006	-0.105	0.087	0.024	0.054	0.037	0.008	-0.149
12. Age	41.729	11.756	0.076	0.005	0.072	0.106	0.002	-0.008	-0.006	-0.046
13. Education: Lower than bachelor's degree	0.697	0.459	-0.059	-0.063	-0.021	-0.061	0.054	-0.041	0.001	0.026
14. Education: Bachelor's degree	0.140	0.347	0.048	0.038	0.010	0.067	-0.046	0.001	0.003	-0.055
15. Education: Master's degree or higher	0.162	0.369	0.028	0.043	0.017	0.013	-0.024	0.050	-0.004	0.019
16. Manager	0.292	0.458	0.120	0.090	-0.030	0.052	-0.038	-0.062	0.008	0.035
17. Ln(Hourly pay level)	2.136 <sup>1</sup>	0.951	0.215	0.274	-0.063	0.275	-0.109	-0.286	0.001	-0.082
18. Organizational tenure	10.836	9.925	0.121	0.047	0.071	0.083	0.039	-0.030	-0.020	-0.050

Variables	9	10	11	12	13	14	15	26	17
10. Job characteristics: Not enough time to get the job done	0.310								
11. Female	-0.020	-0.034							
12. Age	0.009	-0.040	0.028						
13. Education: Lower than bachelor's degree	0.046	0.113	-0.075	0.013					
14. Education: Bachelor's degree	0.003	-0.068	0.079	-0.044	-0.613				
15. Education: Master's degree or higher	-0.061	-0.076	0.020	0.025	-0.668	-0.178			
16. Manager	-0.087	-0.140	-0.120	0.049	-0.158	0.073	0.128		
17. Ln(Hourly pay level)	0.000	-0.164	-0.180	0.106	-0.219	0.169	0.114	0.269	
18. Organizational tenure	-0.007	-0.043	-0.003	0.548	0.018	-0.024	0.000	0.091	0.142

**Note(s):** N = 13,289

Correlations with an absolute value larger than 0.018 are significant at  $p < 0.05$  level

Country and occupation control variables are not reported in this table

<sup>1</sup>Equivalent to 13.681 euros

**Source(s):** Table by authors

**Table 1.**  
Means, standard  
deviations, and  
correlations of the  
variables

Country	Christian: Protestant		Christian: Roman Catholic		Christian: Eastern Orthodox		Christian: Other Christian		Christian: All		Non-Christian		All	
Belgium	3	(0.0%)	153	(1.2%)	1	(0.0%)	3	(0.0%)	160	(1.2%)	315	(2.4%)	475	(3.6%)
Bulgaria	3	(0.0%)	1	(0.0%)	273	(2.1%)	0	(0.0%)	277	(2.1%)	97	(0.7%)	374	(2.8%)
Switzerland	123	(0.9%)	134	(1.0%)	11	(0.1%)	7	(0.1%)	275	(2.1%)	222	(1.7%)	497	(3.7%)
Cyprus	0	(0.0%)	2	(0.0%)	195	(1.5%)	2	(0.0%)	199	(1.5%)	4	(0.0%)	203	(1.5%)
Czech Republic	7	(0.1%)	73	(0.5%)	0	(0.0%)	2	(0.0%)	82	(0.6%)	415	(3.1%)	497	(3.7%)
Germany	252	(1.9%)	188	(1.4%)	9	(0.1%)	29	(0.2%)	478	(3.6%)	478	(3.6%)	956	(7.2%)
Denmark	363	(2.7%)	15	(0.1%)	2	(0.0%)	4	(0.0%)	384	(2.9%)	290	(2.2%)	674	(5.1%)
Estonia	35	(0.3%)	1	(0.0%)	42	(0.3%)	6	(0.0%)	84	(0.6%)	418	(3.1%)	502	(3.8%)
Spain	1	(0.0%)	285	(2.1%)	6	(0.0%)	5	(0.0%)	297	(2.2%)	197	(1.5%)	494	(3.7%)
Finland	345	(2.6%)	0	(0.0%)	8	(0.1%)	3	(0.0%)	356	(2.7%)	306	(2.3%)	662	(5.0%)
France	10	(0.1%)	235	(1.8%)	1	(0.0%)	7	(0.1%)	253	(1.9%)	430	(3.2%)	683	(5.1%)
United Kingdom	173	(1.3%)	59	(0.4%)	0	(0.0%)	13	(0.1%)	245	(1.8%)	479	(3.6%)	724	(5.4%)
Greece	0	(0.0%)	8	(0.1%)	323	(2.4%)	0	(0.0%)	331	(2.5%)	65	(0.5%)	396	(3.0%)
Croatia	1	(0.0%)	182	(1.4%)	3	(0.0%)	1	(0.0%)	187	(1.4%)	47	(0.4%)	234	(1.8%)
Hungary	54	(0.4%)	183	(1.4%)	0	(0.0%)	1	(0.0%)	238	(1.8%)	219	(1.6%)	457	(3.4%)
Ireland	13	(0.1%)	383	(2.9%)	6	(0.0%)	8	(0.1%)	410	(3.1%)	123	(0.9%)	533	(4.0%)
Israel	1	(0.0%)	9	(0.1%)	5	(0.0%)	3	(0.0%)	18	(0.1%)	505	(3.8%)	523	(3.9%)
Lithuania	2	(0.0%)	267	(2.0%)	14	(0.1%)	2	(0.0%)	285	(2.1%)	49	(0.4%)	334	(2.5%)
Netherlands	72	(0.5%)	68	(0.5%)	2	(0.0%)	13	(0.1%)	155	(1.2%)	376	(2.8%)	531	(4.0%)
Norway	394	(3.0%)	23	(0.2%)	5	(0.0%)	4	(0.0%)	426	(3.2%)	385	(2.9%)	811	(6.1%)
Poland	4	(0.0%)	423	(3.2%)	1	(0.0%)	3	(0.0%)	431	(3.2%)	53	(0.4%)	484	(3.6%)
Portugal	2	(0.0%)	170	(1.3%)	3	(0.0%)	10	(0.1%)	185	(1.4%)	50	(0.4%)	235	(1.8%)
Russian Federation	1	(0.0%)	2	(0.0%)	291	(2.2%)	1	(0.0%)	295	(2.2%)	300	(2.3%)	595	(4.5%)
Sweden	143	(1.1%)	9	(0.1%)	6	(0.0%)	8	(0.1%)	166	(1.2%)	479	(3.6%)	645	(4.9%)
Slovenia	3	(0.0%)	126	(0.9%)	4	(0.0%)	2	(0.0%)	135	(1.0%)	167	(1.3%)	302	(2.3%)
Slovakia	25	(0.2%)	230	(1.7%)	3	(0.0%)	17	(0.1%)	275	(2.1%)	99	(0.7%)	374	(2.8%)
Ukraine	1	(0.0%)	6	(0.0%)	52	(0.4%)	0	(0.0%)	59	(0.4%)	35	(0.3%)	94	(0.7%)
All	2,031	(15.3%)	3,235	(24.3%)	1,266	(9.5%)	154	(1.2%)	6,686	(50.3%)	6,603	(49.7%)	13,289	(100%)

Source(s): Table by authors

Variables		Dependent variable: Distributive justice perception (standardized)						
		Model A1	Model A2	Model A3	Model A4	Model A5	Model A6	
Constant		-0.826** (0.171)	-0.838** (0.171)	-0.827** (0.171)	-0.828** (0.171)	-0.827** (0.171)	-0.826** (0.171)	
Controls	Job characteristics	0.146** (0.009)	0.146** (0.009)	0.146** (0.009)	0.146** (0.009)	0.146** (0.009)	0.146** (0.009)	
	Pay depends on effort							
	Job characteristics Requires working hard	0.109** (0.009)	0.110** (0.009)	0.109** (0.009)	0.109** (0.009)	0.109** (0.009)	0.109** (0.009)	
	Job characteristics Not enough time to get the job done	0.073** (0.008)	0.073** (0.008)	0.073** (0.008)	0.073** (0.008)	0.073** (0.008)	0.073** (0.008)	
	Female	-0.045* (0.019)	-0.048* (0.019)	-0.046* (0.019)	-0.045* (0.019)	-0.045* (0.019)	-0.045* (0.019)	
	Age	-0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	
	Education Bachelor's degree <sup>1</sup>	-0.013 (0.028)	-0.014 (0.028)	-0.014 (0.028)	-0.013 (0.028)	-0.013 (0.028)	-0.013 (0.028)	
	Education Master's degree or higher <sup>1</sup>	0.002 (0.028)	0.002 (0.028)	0.001 (0.028)	0.002 (0.028)	0.002 (0.028)	0.002 (0.028)	
	Manager	-0.004 (0.020)	-0.004 (0.020)	-0.004 (0.020)	-0.004 (0.020)	-0.004 (0.020)	-0.004 (0.020)	
	Ln(Hourly pay level)	0.317** (0.017)	0.318** (0.017)	0.318** (0.017)	0.317** (0.017)	0.317** (0.017)	0.317** (0.017)	
	Organizational tenure	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	
	Occupation controls	Y	Y	Y	Y	Y	Y	
	Christianity	All		0.038* (0.018)				
		Protestant			0.054* (0.026)			
Roman Catholic					0.009 (0.024)			
Eastern Orthodox Other Christian						0.043 (0.044)	-0.009 (0.076)	
Country fixed effect	Y	Y	Y	Y	Y	Y		
Model fit $R^2$ (F)	0.145 (50.101)	0.146 (49.117)	0.146 (49.117)	0.145 (49.012)	0.146 (49.032)	0.145 (49.009)		
$\Delta R^2$ (compared with Model A1)		0.001*	0.001*	0.000	0.001	0.000		

**Note(s):**  $N = 13,289$   
 $\dagger p < 0.10$ , \* $p < 0.05$ , \*\* $p < 0.01$   
<sup>1</sup>Base for comparison: Lower than bachelor's degree  
**Source(s):** Table by authors

**Table 3.**  
Country fixed effect regression model predicting distributive justice perception

**Table 4.**  
Country fixed effect  
regression model  
predicting job  
satisfaction

Variables		Dependent variable: Job satisfaction (standardized)									
		Model B1	Model B2	Model B3	Model B4	Model B5	Model B6	Model B7	Model B8	Model B9	Model B10
Constant		-0.759** (0.176)	-0.784** (0.176)	-0.566** (0.170)	-0.563 (0.170)	-0.760** (0.175)	-0.545** (0.170)	-0.543** (0.170)	-0.768** (0.176)	-0.570** (0.170)	-0.571** (0.170)
Controls <sup>1</sup>		Y	Y	Y	Y	Y	Y	Y	Y	Y	
Christianity	All (A)		0.078** (0.019)	0.068** (0.018)	0.068** (0.018)						
	Protestant (P)					0.067* (0.027)	0.053* (0.026)	0.066* (0.026)			
	Roman Catholic (RC)								0.096** (0.025)	0.094** (0.024)	0.095** (0.024)
	Eastern Orthodox (EO)										
	Other Christian (OC)										
Mediator	Distributive justice perception (DJP) <sup>2</sup>			0.260** (0.009)	0.250** (0.012)		0.261** (0.009)	0.273** (0.009)		0.261** (0.009)	0.252** (0.010)
Interaction Effects	DJP * A				0.020 (0.016)						
	DJP * P							-0.086** (0.023)			
	DJP * RC									0.039* (0.019)	
	DJP * EO										
	DJP * OC										
Country fixed effect		Y	Y	Y	Y	Y	Y	Y	Y	Y	
Model fit		0.098** (31.855)	0.099** (31.580)	0.157** (52.357)	0.157** (51.302)	0.098** (31.309)	0.156** (52.102)	0.157** (51.363)	0.099** (31.855)	0.157** (52.379)	0.157** (51.388)
$\Delta R^2$ (compared model)			0.001** (B1)	0.058** (B2)	0.000 (B3)	0.000* (B1)	0.058** (B5)	0.001** (B6)	0.001** (B1)	0.058 (B8)	0.000* (B9)
Variables		Dependent variable: Job satisfaction (standardized)									
		Model B11	Model B12	Model B13	Model B14	Model B15	Model B16				
Constant		-0.758** (0.176)	-0.542** (0.170)	-0.528** (0.170)	-0.759** (0.176)	-0.544** (0.170)	-0.544** (0.170)				
Controls <sup>1</sup>		Y	Y	Y	Y	Y					

(continued)

Variables		Dependent variable: Job satisfaction (standardized)					
		Model B11	Model B12	Model B13	Model B14	Model B15	Model B16
Christianity	All (A)						
	Protestant (P)						
	Roman Catholic (RC)						
	Eastern Orthodox (EO)	-0.044 (0.045)	-0.055 (0.044)	-0.040 (0.044)			
	Other Christian (OC)				-0.009 (0.078)	-0.007 (0.075)	-0.002 (0.075)
Mediator	Distributive justice perception (DJP) <sup>2</sup>		0.261** (0.009)	0.253** (0.009)		0.261** (0.009)	0.260** (0.009)
Interaction Effects	DJP * A						
	DJP * P						
	DJP * RC						
	DJP * EO			0.090** (0.028)			
	DJP * OC						0.092 (0.074)
Country fixed effect Model fit	Y	Y	Y	Y	Y	Y	Y
	R <sup>2</sup> (F)	0.098** (31.183)	0.156** (52.037)	0.157** (51.199)	0.098** (31.161)	0.156** (51.998)	0.156** (50.949)
	Δ R <sup>2</sup> (compared model)	0.000 (B1)	0.058** (B11)	0.001** (B12)	0.000 (B1)	0.058** (B14)	0.000 (B15)

Note(s): N = 13,289

†p < 0.10, \*p < 0.05, \*\*p < 0.01

<sup>1</sup>All the control variables in Table 3 were entered in this model

<sup>2</sup>This variable was standardized

Source(s): Table by authors

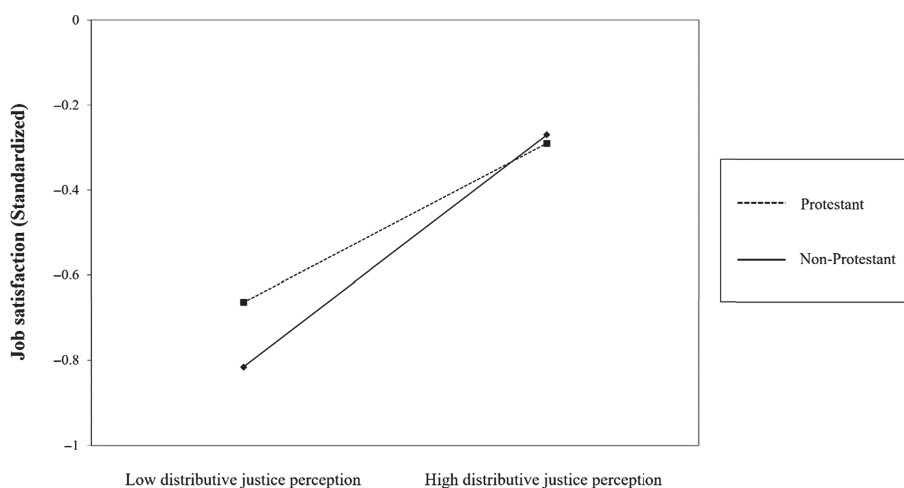
indirect effect accounting for the multi-levelled nature of the data (i.e. individuals nested in countries) (Krull and MacKinnon, 1999, 2001; Mathieu and Taylor, 2007). The indirect effect of “Christianity (All) → distributive justice perception → job satisfaction” was 0.010 (SE = 0.005,  $p < 0.05$ , not reported in tables). Considering that the initial effect of Christianity (All) on job satisfaction was estimated as 0.078 (Model B2 in Table 4), we can estimate that about 13% ( $=0.010/0.078$ ) of the effect of Christianity (All) on job satisfaction is mediated by distributive justice perception. Thus, we found support for Hypothesis 2 in that the relationship between Christianity and job satisfaction is partially (about 13%) mediated by distributive justice perception.

When the effect of Christianity is examined by denomination, however, we found support for Hypothesis 2 only in the case of Protestants. First, as we have examined in the earlier section, the relationship between Protestants and distributive justice perception is significantly positive. Second, the relationship between Protestants and job satisfaction is significantly positive (coefficient = 0.067, SE = 0.027,  $p < 0.05$ , Model B5 in Table 4). Third, the relationship between distributive justice perception and job satisfaction is significantly positive (coefficient = 0.261, SE = 0.009,  $p < 0.01$ , Model B6 in Table 4). Finally, when distributive justice perception is entered into the model, the effect size of Protestants on job satisfaction is decreased (coefficient = 0.053, SE = 0.026,  $p < 0.05$ , Model B6 in Table 4). This effect size is decreased by about 21% ( $= [0.067 - 0.053] / 0.067$ ). Again, we have calculated the indirect effect by utilizing the same method as in the case of all Christians. The indirect effect of “Protestants → distributive justice perception → job satisfaction” was 0.015 (SE = 0.007,  $p < 0.05$ , not reported in tables). Considering that the initial effect of Protestants on job satisfaction was estimated as 0.067 (Model B5 in Table 4), we can estimate that about 22% ( $= 0.015 / 0.067$ ) of the effect of Protestants on job satisfaction is mediated by distributive justice perception. Thus, we also found support for Hypothesis 2 when Protestants are only considered. However, we found no support for Hypothesis 2 when other denominations of Christianity were considered, as Hypothesis 1 was not supported in these cases.

*Christianity moderating the relationship between distributive justice perception and job satisfaction (Hypothesis 3).* In Model B4 in Table 4, the interaction effect of distributive justice perception and Christianity (All) on job satisfaction is insignificant (coefficient = 0.020, SE = 0.016, ns). Thus, we found no support for Hypothesis 3 when all Christians are considered. However, the interaction effect of distributive justice perception and Protestants on job satisfaction is significantly negative (coefficient = -0.086, SE = 0.023,  $p < 0.01$ , Model B7 in Table 4). This means that the relationship between distributive justice perception and job satisfaction is less positive for Protestants when compared to non-Protestants. Thus, we found support for Hypothesis 3 when only the Protestants are considered. This moderating effect is depicted in Figure 2. The single slope estimates for Protestants and non-Protestants were 0.187 and 0.273, respectively. Thus, in the case of Protestants, the positive relationship between distributive justice perception and job satisfaction was about 32% ( $= 0.187 / 0.273$ ) weaker than that of non-Protestants. We found no support for Hypothesis 3 in the cases of other denominations of Christianity (coefficient for “distributive justice perception \* Roman Catholic” = 0.039, SE = 0.019,  $p < 0.05$ , Model B10 in Table 4; coefficient for “distributive justice perception \* Eastern Orthodox” = 0.090, SE = 0.028,  $p < 0.01$ , Model B13 in Table 4; coefficient for “distributive justice perception \* Other Christian” = 0.092, SE = 0.074, ns, Model B16 in Table 4).

#### *Robustness analysis*

As there are a total of 45 control variables in our analysis model (i.e. 26 country dummy variables, 9 occupation dummy variables, and 10 other variables), the issue of overcontrolling may arise. However, a recent study by Sturman *et al.* (2022) has revealed

**Note(s):**

- The simple slopes for Protestant and Non-Protestant are 0.187 and 0.273, respectively (both significant at one percent significance level)
- The simple slopes were calculated using the numbers in Model B7 in Table 4
- The distributive justice perception values were also standardized in calculating the simple slopes
- The low and high distributive perception levels were calculated at one standard deviation above and below the mean value, respectively

**Source(s):** Figure by authors

**Figure 2.**  
The interaction effect  
between distributive  
justice perception and  
protestant predicting  
job satisfaction

that an inappropriate use of control variables is not prone to Types I and II errors. Rather, the practice of running the analyses with and without the control variables and comparing the results can reveal the issue of overcontrolling (Sturman *et al.*, 2022).

Therefore, in Table 5, we have replicated the main findings of the Protestants having a positive relationship with distributive justice and thereby positively influencing job satisfaction and Protestants negatively moderating the relationship between distributive justice perception and job satisfaction without the use of control variables. As in the main analysis results, Protestant is positively related to both distributive justice perception (coefficient = 0.194, SE = 0.024,  $p < 0.01$ , Model C1) and job satisfaction (coefficient = 0.287, SE = 0.024,  $p < 0.01$ , Model C2). Also, following the main analysis results, distributive justice perception is positively related to job satisfaction (coefficient = 0.293, SE = 0.008,  $p < 0.01$ , Model C3). Moreover, when distributive justice perception is entered into the model, the effect size of Protestant on job satisfaction is decreased (coefficient = 0.230, SE = 0.023,  $p < 0.01$ , Model C3). This effect size is decreased by about 22% ( $= [0.293 - 0.230] / 0.293$ ). Lastly, the interaction effect of Protestant and distributive justice perception on job satisfaction is negative (coefficient =  $-0.092$ , SE = 0.024,  $p < 0.01$ , Model C4), which is also in alignment with the main analysis results. Thus, the overall results indicate that overcontrolling is less of an issue in our study.

## Discussion

### Summary of findings

The findings in this study first demonstrate that Christians exhibit a higher level of distributive justice perception and, thereby, a higher level of job satisfaction than non-Christians. However, upon further investigation, we found that this mechanism applies only

**Table 5.**  
Regression models  
without control  
variables

Variables		Dependent variable			
		Distributive justice perception (Standardized)		Job satisfaction (standardized)	
		Model C1	Model C2	Model C3	Model C4
Constant			-0.044** (0.009)	-0.035** (0.009)	-0.035** (0.009)
Protestant (P)		0.194** (0.024)	0.287** (0.024)	0.230** (0.023)	0.242** (0.023)
Distributive Justice Perception (DJP) <sup>1</sup>				0.293** (0.008)	0.306** (0.009)
DJP * P					-0.092** (0.024)
Model	R <sup>2</sup> (F)	0.005**	0.011**	0.096**	0.097**
Fit		(64.810)	(142.845)	(704.208)	(475.078)
	Δ R <sup>2</sup> (compared model)			0.085** (C2)	0.001** (C3)

**Note(s):** N = 13,289  
<sup>†</sup>p < 0.10, \*p < 0.05, \*\*p < 0.01  
<sup>1</sup>This variable was standardized  
**Source(s):** Table by authors

to Protestants among various denominations of Christianity. The findings also indicate that the relationship between distributive justice perception and job satisfaction is less positive for Protestants than non-Protestants. In other words, the distributive justice perception matters less for Protestants in determining how satisfied they are with their jobs than non-Protestants.

*Why only for protestants?*

Although we make important contributions by incorporating Christianity into the model that predicts distributive justice perception and job satisfaction, more detailed analyses reveal that the theorized model is relevant only for Protestants and not for the people affiliated with other denominations within Christianity. Why might this be the case? There are three related possibilities we consider here.

First, Protestants have historically held different beliefs than other denominations about the meaning and motivation for work, and much of this can be attributed to the influence of Martin Luther’s writings on the subject of vocation. According to Benne (2016), Luther drew a sharp distinction between the prevailing Catholic orthodoxy on what constituted doing “God’s work.” In the Catholic view, only members of the clergy were called by God to do work of spiritual or religious significance—all other employment was “earthly” or “worldly” and of lesser consequence. In contradistinction to the Catholic view, Luther argued that all believers have callings and that all work done by believers is equal in moral and religious significance, even if it is different in function (Benne, 2016). As Benne (2016) further notes, Luther’s teaching resulted in unprecedented energy and enthusiasm for mundane work throughout the Western world, for work became the readily available means for believers to mediate God’s love to their neighbors and generally to learn and demonstrate their obedience to God.

The second possible explanation for our findings can be attributed to the influence of the writings of John Calvin, who, together with Luther, spearheaded the early Protestant Reformation. Calvin’s influence is prominently reflected in Max Weber’s analysis of the

Protestant work ethic (Weber, 1956). Although much of Weber's theory has been subsequently challenged or refuted (Ferguson, 2008; Spenkuch, 2017), many of his general observations about Protestantism are held to be valid, if not astute. Specifically, Weber wrote that the Calvinist doctrine of predestination—that God has already determined who is saved and who is damned—created a deep need for visible clues as to one's and others' salvation status and that this need drove many Calvinists to look to their success in their earthly labors and their accumulation of wealth as evidence of their having been predestined for salvation. While Weber was primarily interested in accounting for the emergence of widespread profit-seeking behavior (i.e. Capitalism), his argument also gives a reasonable account as to why Calvinists, in particular, and Protestants and (later) Capitalists, in general, worked so hard to try to secure such profits.

In view of the present study, the residual influence of Luther offers one possible explanation as to why Protestants might be less concerned with having equal rewards as those around them, and the residual influence of Calvin offers a similarly plausible explanation as to why Protestants might be less concerned with having equal inputs as those around them. Viewed in this light, our results are perhaps not surprising.

The third and final possibility is suggested by the work of Schneider and Valet (2017). As mentioned earlier, Huseman *et al.* (1987) developed the construct of equity sensitivity, and we have just mentioned two possible accounts for why Protestants might possess a benevolent equity orientation rather than an entitled or sensitive one. However, these categories from Huseman and colleagues all presume that persons are actively engaged in equity-type comparisons and only differ in their manifested preferences and tolerances with regard to equity. Schneider and Valet (2017) call this assumption of a universal comparison tendency into question by showing that, rather than differing only in equity sensitivities, people may also differ with regard to their tendencies to engage in person-to-person comparisons at all. Thus, it may be the case that Protestants are less likely to engage in such comparisons than Catholics and others.

### *Theoretical implications*

The study results provide some important implications in terms of theory building. First and foremost, our research advances the literature on religion and job satisfaction. Although some studies have provided evidence of the positive relationship between religion and job satisfaction (e.g. Bal and Kökalan, 2021; Ghazzawi *et al.*, 2016; Neubert and Halbesleben, 2015), the question of why this positive relationship would exist has not been answered through empirical analyses. Our research provides empirical evidence that some portion of this relationship is mediated by distributive justice perception. As a result, the findings provide a better understanding of why people with religions, especially Christians, are happier with their jobs.

Second, the study findings provide additional insights into the factors that moderate the relationship between distributive justice perception and job satisfaction. Although there have been studies examining moderators such as group commitment (Ohana, 2012), organizational politics (Katrinli *et al.*, 2010), and alternative job opportunities (Mushtaq *et al.*, 2014) in this relationship, no study has examined Christianity as the moderator, despite the growing attention to the influence of spirituality and religious factors on employee attitudes and behavior (Chan-Serafin *et al.*, 2013; Dubey and Bedi, 2024). One notable study is the study by Khan *et al.* (2015). In this study, the researchers have examined Islamic Work Ethics (IWE) as the moderator in the relationships among various types of organizational justice and job satisfaction. Although the study examines a religious factor as a moderator, Christianity was not investigated, and the researchers have failed to provide evidence that IWE moderates the relationship between distributive justice perception and job satisfaction. Thus, to the best of

our knowledge, the findings in this study are the first empirical evidence that this relationship is moderated by Christianity, but only in the case of Protestants.

Lastly, the current study also meaningfully extends the organizational justice literature by identifying Christianity as an antecedent of distributive justice perception. Although distributive justice perception has been studied extensively due to its correlations with some important people management outcomes (Cohen-Charash and Spector, 2001; Viswesvaran and Ones, 2002), less has been done in identifying demographic variables that can predict distributive justice perception, with most of the studies in this topic focusing on gender difference (Cohen-Charash and Spector, 2001) and other factors such as administrative structure (e.g. how compensation and appraisal policies are administered), organizational support (e.g. trust in management and perceived organizational support), and culture (e.g. power distance or individualism) as antecedents (e.g. [Phuong, 2018](#); [Steiner, 2001](#); [Taneja et al., 2023](#)). The current study provides evidence that employees' religious affiliation can be a predictor of distributive justice perception and urges future studies on this topic to consider religious factors.

#### *Practical implications*

Our findings overall imply that organizations may focus less on managing distributive justice perceptions when Christian (especially Protestant) employees are concerned. These employees are likely to maintain a higher level of distributive justice perception, and distributive justice perception can matter less in shaping their job satisfaction. As a result, organizations may want to focus more on the other aspects of organizational justice, such as procedural and interactional justices (Cohen-Charash and Spector, 2001), in managing these employees if maintaining job satisfaction level is a concern. With many companies openly espousing and promoting Christian values operating and being supported in today's economy (Barna Group, 2011; Ibrahim and Angelidis, 2005), the findings in this study can be useful to organizations that are more likely to attract and have Christians as their employees.

The outcomes of this research, however, should not imply treating employees differently based on their religious beliefs, as doing so may trigger the issue of prejudice or violence (Alewel and Rastetter, 2020). However, as outlined in the recent work by [Maidl et al. \(2022\)](#), spirituality and religion are still very much neglected issues by enterprises, especially in European regions. Thus, we hope the results of the current research can help to initiate discussions on how religion and spirituality can affect employee outcomes, and business enterprises to consider the factors in their managerial decisions.

#### *Limitations and future study directions*

Although our study provides meaningful implications, the findings need to be applied with caution, considering the following limitations. First, a definite causal inference cannot be made due to the cross-sectional nature of the data. The reverse causality is a possibility. For example, people who are by nature more satisfied with the outcomes given (i.e. with a higher level of distributive justice perception) may be more likely to pursue spiritual and religious activities and thus be more likely to become Christians. Therefore, future studies need to rely on longitudinal data to examine this issue and make a stronger causal claim.

Second, generalizing the findings beyond the European region may need revalidation. For example, our model being relevant only to Protestants may be in part a function of how other denominations, such as Roman Catholicism and Eastern Orthodoxy, have evolved in the European context, as we have discussed in the section *Why only Protestants?* In contrast, in a region with a strong Protestant origin and history like the United States, the other denominations within Christianity may have been more strongly influenced by Protestants. As a result, the relationships that we have hypothesized in this study may also be significant

for other denominations in the United States when they were shown not to be in Europe. This research also touches on sweeping cultural, economic, and political trends that emerge and evolve slowly over time. Ferguson (2008), while broadly considering the relationship between religion/worldview and work ethic throughout history, made the observation that if Protestants were considered remarkable in their tendency to work more than was needed to survive, Asians might be even more remarkable in this regard. Thus, one promising extension of this research might be to consider the comparative effects of other major work ethics (such as those associated with Confucianism or Islam) on job satisfaction and related variables.

Third, the estimated coefficients in this study may not be accurate due to omitted variable bias as well as single-item measures. Although we have controlled for as many factors as possible related to the variables in our model, the employment-related information in 2010 ESS is limited, and not all relevant variables could have been controlled. Furthermore, some variables like distributive justice perception were measured with a single item, and thus the reliability of the measure could not be validated. Similarly, our operationalization of Christianity as an individual-level variable has by necessity treated Christianity monolithically. In other words, we have assumed that the Christianity coefficient present in Christians' work equity comparisons is a constant that does not vary with differences in maturity in the faith. Future research needs to establish surveys that explicitly intend to examine the relationships among religion, justice perceptions, and work outcomes to overcome these difficulties.

Lastly, the psychological mechanism utilized to build Hypothesis 1 (i.e. that Christians are more likely to be benevolents and thereby exhibit a higher level of distributive justice perception) was not explicitly investigated in this research. Therefore, future research on this topic needs to precisely investigate this underlying mechanism to extend the understanding of why Christians demonstrate a higher level of distributive justice perception.

### Conclusion

Although it has limitations, our research contributes to organizational justice and job satisfaction literature by adding Christianity as a construct that predicts these outcomes and refines their relationship. Also, as outlined in the practical implications section, the findings provide useful managerial implications as well as a better understanding of how Christians behave in a work setting. The research implies that Protestants in Europe are living up to the teaching in the Parable of the Vineyard Workers through work.

### Notes

1. The European Social Survey data can be downloaded at: <https://www.europeansocialsurvey.org/data-portal>
2. The survey methodology of the European Social Survey is explained at: <https://europeansocialsurvey.org/methodology/methodology-overview>
3. The original scale in the European Social Survey denoted 1 as agree strongly, and 5 as disagree strongly. We have reverse-coded this measure in our study to indicate a higher number as the higher level of distributive justice perception.

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Control variables	Description
Country	Bulgaria = 1, otherwise = 0 Switzerland = 1, otherwise = 0 Cyprus = 1, otherwise = 0 Czech Republic = 1, otherwise = 0 Germany = 1, otherwise = 0 Denmark = 1, otherwise = 0 Estonia = 1, otherwise = 0 Spain = 1, otherwise = 0 Finland = 1, otherwise = 0 France = 1, otherwise = 0 United Kingdom = 1, otherwise = 0 Greece = 1, otherwise = 0 Croatia = 1, otherwise = 0 Hungary = 1, otherwise = 0 Ireland = 1, otherwise = 0 Israel = 1, otherwise = 0 Lithuania = 1, otherwise = 0 Netherlands = 1, otherwise = 0 Norway = 1, otherwise = 0 Poland = 1, otherwise = 0 Portugal = 1, otherwise = 0 Russian Federation = 1, otherwise = 0 Sweden = 1, otherwise = 0 Slovenia = 1, otherwise = 0 Slovakia = 1, otherwise = 0 Ukraine = 1, otherwise = 0 Reference group: Belgium
Occupation	Legislators, senior officials and managers = 1, otherwise = 0 Professionals = 1, otherwise = 0 Technicians and associate professionals = 1, otherwise = 0 Clerks = 1, otherwise = 0 Service workers, shop, market sales workers = 1, otherwise = 0 Skilled agricultural and fishery workers = 1, otherwise = 0 Craft and related trades workers = 1, otherwise = 0 Plant and machine operators and assemblers = 1, otherwise = 0 Elementary occupations = 1, otherwise = 0 Reference group: Armed forces
Job characteristics	Wage/salary depends on effort put into work (four-point scale: 1 = Not at all true, 4 = Very true) The job requires work very hard (four-point scale: 1 = Not at all true, 4 = Very true) Never enough time to get everything done in the job (four-point scale 1 = Not at all true, 4 = Very true)

**Table A1.**  
Control variables in the  
analysis model  
(continued)

Control variables		Description
Other characteristics	Gender	Female = 1, otherwise = 0
	Age	Age (Continuous variable)
	Highest level of education	Bachelor's degree (or equivalent) = 1, otherwise = 0 Master's degree or higher (or equivalent) = 1, otherwise = 0 Reference group: Lower than Bachelor's degree (or equivalent)
	Managerial status	Responsible for supervising other employees = 1, otherwise = 0
	Ln(Hourly pay level)	Natural logarithm of a usual gross pay in euros, before deductions for tax and insurance (Continuous variable): Excluded people reporting less than 1 or more than 1,000 euros
	Organizational tenure	Number of years worked for the current organization (Continuous variable)

Table A1.

Source(s): Table by authors

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