Review

The Influence of Religion on Sustainable Consumption: A Systematic Review and Future Research Agenda

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Abstract: Background: Due to the current environmental crisis, sustainable consumption (SC) behaviour and its drivers has gained significant attention among researchers. One of the potential drivers of SC, religion, have been analysed in the last few years. The study of the relationship between religion and adoption of SC at the individual level have reached mixed and inconclusive results. Methods: Following the PRISMA guidelines, a systematic review of articles published between 1998 and 2019 was conducted using the Web of Science and Scopus databases. Search terms included sustainable consumption, green consumption, ethical consumption, responsible consumption, pro-environmental behaviour and religion. Results: This systematic review reveals that contradictory results are due to methodological and theoretical reasons and provides a unifying understanding about the influence of religion on SC practices. Results highlight the role of religion as a distal or background factor of other proximal determinants of environmental behaviour. Conclusions: This paper contributes to the literature concerning SC by synthesising previous scholarship showing that religion shapes SC indirectly by affecting attitudes, values, self-efficacy, social norms and identity. The review concludes with a research agenda to encourage scholars the study of other unexamined mediating constructs, such as beliefs in after life, cleansing rituals and prayer, moral emotions, moral identity, the role of virtues and self-restrain.

Keywords: religion; sustainable consumption; behavioral factors; review

1. Introduction

The 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015, aims to coordinate efforts to advance sustainable development. The 12th Sustainable Development Goal promotes sustainable consumption and production patterns; one of its targets fosters educating and engaging citizens on sustainable consumption and lifestyles. However, there are not clear progresses to meet this Goal in view of the growing unsustainable consumption patterns [1,2]. For this reason, understanding the drivers for sustainable consumption (SC hereafter) behaviour is becoming increasingly important [3].

One of the such drivers that have received growing attention in the literature is religion. It is estimated that 84% of the world's population belong to a religious group [4]. Of this, approximately, 32% are Christians, 23% Muslims, 15% Hindus, 7% Buddhist, 0.2% Jews, 6% folk or traditional religions and less than 1% others [4]. These religions are a significant source of wisdom, morality and ethics for individuals [5,6].

In the last decade, environmental sciences have acknowledged the potential of religion to address the ecological crisis [7]. Recently, environmental psychology has provided insights on how to enhance behavioural change [8–10] pointing to the manifold routes whereby religion influences individual perceptions, beliefs and practices [11]. As it has been long recognized in conservation psychology "conservation without moral values cannot sustain itself. Unless we reach people through beauty, ethics, spiritual, or religious values or whatever, we are not going to keep our wilderness areas" [12] (p. 130).

Thus, religious beliefs, ideas and practices may be a driver for adoption of SC, by fostering salient and inner motivations for behavioural change. Other scholarship has shown that religion is one of the factors influencing consumer behaviours [13], and more specifically, consumer ethics [14], evaluation of product quality [15], product pricing [16], and materialism [17]. In view of this evidence, it is plausible to think that religion at the individual level may influence adoption of SC as well.

However, past studies have reached mixed, inconclusive, and contradictory results about the relationship between individual's religion and SC [18–21]. A systematic review may contribute to reconcile these disparate results as it will clarify the relationship between these two constructs, and it will identify the mediating variables that can explain why religion affects SC and the moderators or boundary conditions of such influence [22].

This paper intends to enrich our understanding of the influence of religion on SC. Even though religion may play a key role in the transition to more SC at an institutional level [23], at the organisational level [24] and at the individual level, this study focuses on the latter as it examines the influence of religion on the individual's adoption of SC. As mentioned above, research on consumer behaviour shows that religion can be considered an individual difference variable and recently, studies have emerged addressing this influence on SC, but how this influence operates needs to be clarified. This is in line with recent calls from psychology about the importance of understanding the individual motivations that underpin behavioural processes leading to improved or constrained sustainable lifestyles [9,12,25]. Our research aims to answer three research questions (RQ):

RQ 1: What is the relationship between religion and SC? Does this relationship change depending on methodological issues (e.g., measurement of the constructs), the particular religion being studied, or the country under examination?

RQ 2: What are the mediating variables or constructs whereby religion influences others proximal and proven antecedent of SC?

RQ 3: Are there any moderators that weaken or strengthen the influence of religion on SC?

To achieve this goal, a systematic literature review was carried out, following the PRISMA guidelines. Reported studies were grouped according to whether they analysed the direct or mediated relationship between religion and SC. Thus, this review differentiates between studies treating religion as a distal or background factor and those including mediating variables or proximal determinants of environmental behaviour, following the socio psychological model proposes by Clayton and Myers [12]. This integrative model proposes two main sources of behaviour: internal (within the individual) including knowledge, attitudes, values, emotions, responsibility and efficacy, and external (related to the environment) including social norms, affordances, reinforcement contingencies, prompts, goals and feedback.

This paper makes three contributions to the literature. First, this study concludes that the disparate results of past studies are due to the limited consideration of the influences of the cultural context, to methodological aspects regarding the measure of religion and to the insufficient theoretical support of most studies. Second, this review contributes by proposing that religion should be treated as a background factor influencing indirectly other proximal antecedents of behaviour. Finally, this paper defends that, because of the complex nature of the relationship between the constructs examined, approaches that consider a mediated relationship/moderating role of religion are needed as they can

provide a more accurate and comprehensive understanding of the psychological underpinnings of the relationship between the constructs.

2. Sustainable Consumption and Religion: Definitions and Measurement

The SDG 12 aims to reduce the ecological footprint by changing the methods of production and consumption of goods. This implies using resources efficiently, respecting resource constraints and reducing pressures in natural capital in order to increase overall wellbeing, keep the environment clean and healthy, and safeguard the needs of future generations [26].

Choosing a sustainable option when purchasing, decreasing waste generation by reducing consumption, reusing, recycling and being more efficient in the use of energy, are some of the actions that individuals may carry out to achieve the SDG12 goal. These actions are included in the umbrella term "sustainable consumption", also referred to as "ethical" or "green" or "responsible" consumption". In this paper, we adopt a broad view of SC understanding that it goes beyond the mere purchasing of green goods and that it also includes actions related to the use and disposal of merchandises, or even to avoiding consumption. This broader definition of SC is consistent with recent conceptualizations of this construct [27].

SC overlaps with other similar constructs such as pro-environmental behaviour (PEB hereafter) defined as "behaviour that consciously seeks to minimize the negative impact of one's actions on the natural and built world" [28] (p. 240). Actions usually including in the PEB are similar to the ones described above, namely the limitation of energy consumption, the reduction of waste production and recycling, as well as the concept of SC. Thus, considering the similarity between the two constructs, in this paper we used the terms "responsible consumption", "green consumption", "ethical consumption" and "pro-environmental behaviour" as synonyms of SC.

Defining the causal construct under examination, i.e., "religion" is more difficult, first because it is a construct highly contest in literature (see for example [29,30]), and then because, being such a complex construct, a standard definition is not possible [11]. Also, religion can be studied at different level of analysis; here we focus on the individual level, understanding religion as beliefs in superhuman beings [31] or the "systems of meaning embodied in a pattern of life, a community of faith, and a worldview that articulate a view of the sacred and of what ultimately matters" [32] (p. 10). This definition foregrounds that religion concerns beliefs, goals, communitarian norms and guidelines. Indeed, "religions provide specific norms and moral arguments defining what is right and wrong, and it posits higher moral such as altruistic sacrifice, humility, or strong self-control of impulsivity-related behaviours" [33] (p. 1327).

An important clarification is the difference between religion and spirituality. Although both concepts comprise a search for the sacred [34], it is accepted that religion is rooted in institutionalized authorities (faith communities) that transcend the person and where the person is embedded, whereas spirituality is understood outside faith communities [11]. Another clarification merits the spirituality of Indigenous Peoples, which cannot be encompassed within the category "religion"; an approximation would be to say that it is a communitarian experience of the world that comprises balance, harmony and interrelationship among all that exists [30]. This is not intended to be a definition, but to reflect the importance of terminological clarification, so as not to fall into a universalizing gloss of "religion" as a catch-all category [35]. This review will focus on institutionalized religions and spirituality will be excluded from the analysis.

Empirically, disparate operationalizations of the construct religion can be found in past research. They are briefly reviewed in turn, although theoretically all religious dimensions are interrelated [33].

First, it is important to differentiate between affiliate religion and practiced religion or religiosity. Whereas affiliate religion is the particular faith an individual belongs to [36], religiosity is "the degree to which beliefs in specific religious values and ideals are held and practiced by an individual" [37] (p. 27). The difference is noteworthy because affiliate religion may reflect cultural conventions or norms and not necessarily capture the strength of the individual's adherence to the beliefs and principles that

derive from a particular religion. In turn, as Mokhlis [38] points, religiosity can be measured with different indicators, such as self-perceived level of religiosity [37], frequency of church attendance [39], religious identity [40] or ad hoc scales. To illustrate, the Religious Commitment Inventory (RCI) measures the degree to which a person is consistent with his/her religious values, beliefs, and practices them in daily life [41].

Another fundamental distinction was established by Allport and Ross [42] between intrinsic and extrinsic Religious Orientation, operationalized in the Religious Orientation Scale. Intrinsic religiosity refers to the individual's effort to internalize and fully follow a religious creed [42]. In contrast, individuals with extrinsic religiosity use religion as a tool to increase their acceptance in particular social environments [42]. The most used religious measures are summarized in Table 1.

Table 1. Religious measures and its definitions.

Religious Measures		Definitions
Religious affiliation		Belong formally to a religious denomination [39].
Religiosity	Self-perceived	The degree to which beliefs in specific religious values and ideals are held and practiced [37].
	Church attendance	Frequency of church services attendance [39].
	Intrinsic religiosity	Individual effort to internalize and fully follow a religious creed [42].
	Extrinsic religiosity	Use of religion as a tool to increase acceptance in particular social environments [42].
	Intrapersonal commitment	The degree to which a person is consistent to his/her religious values and beliefs. Intrapersonal dimension of religiosity [41].
	Interpersonal commitment	The practice of religious values and beliefs into daily life. Interpersonal dimension of religiosity [41].
	Religious identity	Importance of religious faith as it pertains to the self-concept and personal identity [40].

3. Methods

3.1. Search Strategy and Study Selection

This systematic review aims to structure the research field by identifying emergent themes, point out gaps and contribute to theory development, including quantitative and qualitative analysis [43] following the PRISMA guidelines [44]. To minimize the risk of bias, this study reports the steps followed in the PRISMA checklist (see Appendix A).

The first step was a search for articles using the Web of Science and Scopus database, using the string search: "sustainable consumption" OR "green consumption" OR "ethical consumption" OR "responsible consumption" OR "pro-environmental behav*" and relig* (September 2019). The second step was to determine the papers eligible for analysis. These were used as inclusion criteria: (1) any studies assessing directs impact of religion on SC outcomes; (2) papers referring to SC outcomes related to the indirect effect of religion; (3), no restrictions of language and publication status were used; (4), neither time nor geographical restrictions were applied; (5) peer-reviewed studies identified by searching the bibliographies of selected articles were included.

An illustration of the entire study selection process from initial searches and those studies put forward for data extraction and coding is provided in Figure 1. Screening against the inclusion criteria resulted in a final set of 83 documents. The titles and abstracts were checked for relevance; as a result, 25 out of these 83 documents were excluded because they did not address the topic under examination. 6 additional records were excluded because, after an exhaustive search the full text was not accessible. For the remaining 52 references, the full texts were collected and analysed. Another 4 records were

excluded after full text reading. However, 4 new records identified by bibliographies of selected articles were included. Finally, a total of 52 records were judged relevant and were selected for the analysis.
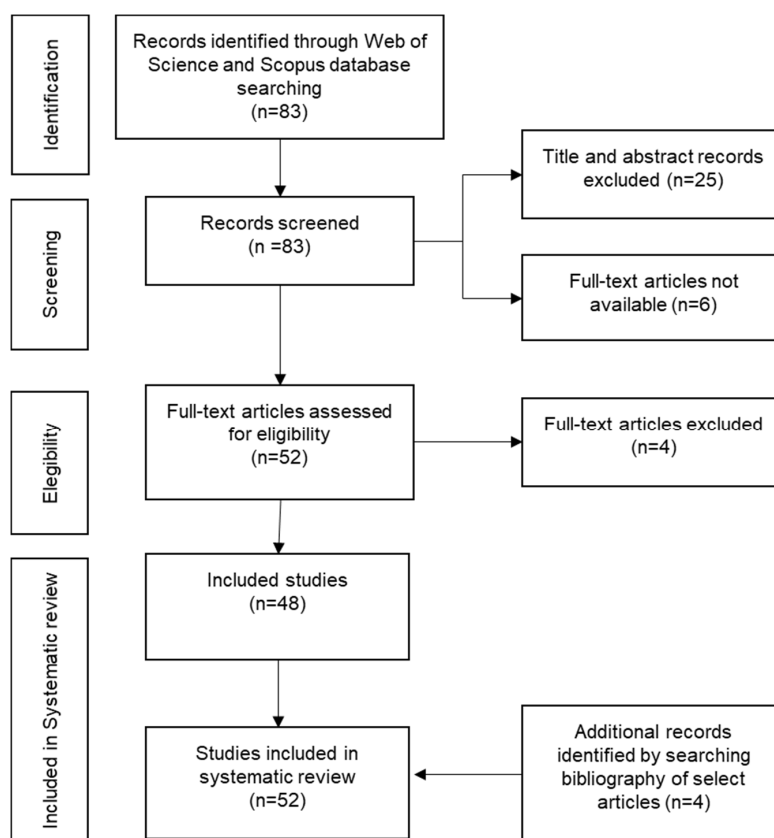

Figure 1. PRISMA flow diagram. Adapted from Moher et al. (2009).

3.2. Coding Process

A data extraction table was designed to extract relevant information. The first author extracted the following data from included studies and the other authors checked the extracted data. Information was extracted from each included article on: (1) author, year and journal of publication; (2) religion construct used (3) SC aspects involved; (4) theories or conceptual models used; (5) measures; (6) mediating and moderator variables; (7) sample size and sample description; (8) sampling and estimation method and (9) results. Qualitative studies were coded following the same items except (5) and (6).

The finally selected papers were classified according to the methodological approaches used, in quantitative, qualitative and conceptual/theoretical studies. Mixed-method papers were classified into the other two categories, as appropriate. Most quantitative studies were correlational, using survey-based methods and statistical samples of respondents. There were also 3 intervention or quasi-experimental studies comparing attitudes and behaviours before and after the implementation of sustainability-related educational programmes in religious communities. Theoretical studies were also included in the review but excluded from this coding system. These conceptual papers examined an aspect of SC from a religious concept; to illustrate, these papers examined SC and the meaning of self-realization through a Hindu perspective [45] or the relevance of gratitude as antecedent to pro-environmental behaviour [46]. The description of each studies is offered in Appendix B.

In order to structure the results and answer the research questions, quantitative papers were classified according to whether they analysed a direct or indirect influence of religion on SC. Those papers proposing a mediated relationship, the influence of religion was consider as a background of other

proven determinants of behaviour, following the social psychological model of behaviour proposes by Clayton and Myers [12].

3.3. Description of Studies Included in the Systematic Review

Research on religion and SC is growing. The oldest publication dates from 1998 and most studies were published in recent years, with half of the publications from the period 2016–2019, with a growing trend towards quantitative studies.

Of the 52 studies considered in the review, 11 were conceptual (24%), 35 papers were quantitative (65%) (3 of which were experimental studies) and the remaining were qualitative. Regarding the quantitative studies, the most frequently applied method was ad hoc survey design (83%) followed by data extraction from National General Social Surveys (17%). In total, the sample size of these quantitative studies was 86,203. Samples were selected using probabilistic methods: 71.4% Stratified and 7.6% Random techniques, corresponding to the studies that used nationally representative data from a general social survey. Non-probabilistic methods were also used in the remaining studies: 10.9%, convenience, 7.4% judgement, 2.4% Snowball and 0.3% Quota sampling. Regarding the 11% qualitative papers, their aggregated base of informants yields 179. In-depth semi-structured interviews was the most used technique. All qualitative papers used purposive sampling.

Regarding the geographical distribution of studies, United States was the most represented country (28% of the case studies), followed by research in Pakistan and Australia (8% respectively) and Indonesia (5%). Four studies did a cross-country examination; namely, United States and Germany [47]; United States and South Korea [48]; Indonesia and Malaysia [49]. One of the papers included a multilevel analysis of 34 countries [50].

Of the total sample, 65.10% of the informants described themselves as religious, 25.40% as non-religious and the rest did not report. In terms of affiliation, Christians (11.21%) and Islamic (4.66%) confessions were the most studied, followed by Buddhists (1.60%) and Hindus (1.16%), others (1.14%) and the rest was group as religious that did not specify their affiliation (45.33%).

4. Results

This section presents a synthesis of the most relevant insights classifying them according to whether they have studied a direct or a mediated relationship between religion and SC.

4.1. A Direct Relationship between Religion and Sustainable Consumption

Regarding RQ1 about the relationship between religion and SC, it is important to note that historically, this research domain emerged as a reaction to White's thesis [51] who sustained that Judeo-Christian religion was responsible for the environmental crisis. White's emphasis on the significance of a dominion view of nature—derived from the Bible in his view—for predicting environmental attitudes and behaviour has been central to support a causal relationship between religion and SC. Scholarship tested empirically the stewardship or the dominion hypothesis, with the aim of clarifying if religion would improve or constrain SC intention, attitudes and/or behaviours. In doing so, a direct test of this influence was proposed and analysed in 69% of quantitative studies (24 papers) with disparate and inconclusive results that can be summarized as follows:

- Some studies focused on religious and non-religious differences, finding that religious individuals adopt SC to a greater extent have a more SC than less or non-religious ones [52–56], while others proved the opposite [57–61].
- Other studies examined differences across faiths on the understanding that if White's hypothesis was right, it would not hold in Eastern religious followers (Buddhist and Hindi), as these religions are not anchored on the dominion belief, according to White. This line of inquiry also resulted in mixed findings: whereas some studies found that believers of Eastern religions were more likely to carry out sustainable behaviours and hold more positive environmental views than Western

religious followers, Christians in particular [48,62], others found contradicting findings [63,64]. A similar conclusion was found in a global study comparing the environmental performance of countries with different religions, concluding that similar values were found across Eastern and Christian traditions [65].

Three reasons could explain these inconclusive outcomes: the concurrent influence of cultural and country effects, methodological issues and theoretical reasons. First, different results are observed between countries. These country differences point to the need to take into account the impact of the complex cultural and geographical contexts where studies were carried out. Believers in the same religion/individuals with a similar religious affiliation are considered to share a common cognitive system of beliefs, values and expectations and are supposed to behave similarly [66]. However, this assumption ignores the contextual influences that may explain why those sharing a religious affiliation behave differently in different countries [67]. Following this rationale, cross-cultural studies have shown that religion cannot be studied in isolation of other contextual influences. For example, in a study carried out in the United States and South Korea [48], researchers found that not only religious affiliation and religiosity but also the country and the interactions among the two, significantly predicted sustainable behaviours. Similarly, another cross-country study in United States and Germany [47], found remarkable differences between individuals of the same religion in these two countries: among US respondents, a positive stronger correlation between religious attendance and ethical consumption was found, whereas among Germans the relationship was negative and not significant. Researchers explained this difference by pointing out a geographical effect: the US subsample was taken in California, and this is one of the greenest states in the country.

A second reason for the contradictory results is the methodology employed, in particular the conceptualization on which the measure of religion is based. Two observations are worth noting. First, religion has been measured differently across studies and this dissimilar operationalization of the construct implies that results cannot be integrated [68]. To illustrate, examining only religious affiliation, the results show a negative [57] or positive [69] influence of religion on environmental attitudes and behaviours. But when the measure of religion reflects the individual's deeper commitment, such as the self-perceived level of religiosity, results are different. Indeed, the self-perceived level of religiosity has been found to positively correlate with self-reported sustainable household behaviours [54] and behaviours such as avoid buying products, pay higher taxes and accept cut in living standards for environmental reasons [70,71]. Reinforcing this argument, studies differentiating between an intrinsic and extrinsic orientation to religiosity [42] have shown that intrinsic religiosity predict positive SC outcomes while extrinsic religiosity does not [52,72,73].

Nonetheless, external religiosity could also predict SC [63,64], but the mediating mechanism is different. While internal religiosity is linked to the inherent views and values provided by religion, external religiosity would be a by-product of the intersection between public participation in religious activities and local culture. However, the relationship between external religiosity and other constructs makes it difficult to disentangle which of them is actually the cause of the behaviour so that it is not possible to rule out that the relationship between external religiosity and SC is spurious. Methodologically, using only affiliation as a measure of the construct should be discouraged as it does not capture the degree to which its members accept the associated beliefs and practices.

A final reason for the inconsistent results is the limited theoretical grounding for the relationship between religion and SC. Most of the studies testing a direct effect are empirical or data-driven and lack a solid theoretical approach to explain the relationship. In contrast, studies that propose a mediating relationship (31% of quantitative papers) are usually grounded on a theoretical framework. To these studies we turn our attention next.

4.2. A Mediated/Moderate Relationship between Religion and Sustainable Consumption

Concerning RQ2 and RQ3, studies that defended a mediating and/or moderating role of religion on SC were analysed. Although the majority of the papers proposed and tested a direct relationship

between these two constructs, 11 papers have defended a mediated relationship on the basis that religion is a background factor that influence other proximal (and already proven) antecedents of environment behaviour [74]; and/or proposes some moderators that weaken or strengthen the religion-SC link. These behavioural antecedents are grouped into external and internal, as suggests the social psychological model of behaviour by Clayton and Myers. This integrative model proposes two main sources of behaviour: internal (within the individual) including knowledge, attitudes, values, emotions, responsibility and efficacy, and external (related to the environment) including social norms, affordances, reinforcement contingencies, prompts, goals and feedback [12]. The influence of religion on these determinants are describe below.

Attitudes. Religion may affect behaviour by influencing the cognitive schemata. Research has shown that individuals make reasoned choices that sustain their SC decisions and practices. Religion may be one of the factors affecting such reasoning. Attitudes, a prominent construct to study this cognitive schemata, have been systematically found a significant predictor of intention, which in turn affects behaviour [75]. Religious values has been found to significantly influence attitudes, either directly or indirectly through the mediation of environmental concern and natural environmental orientation [49,76,77] or the individual's beliefs and perceptions about nature [78].

Thus, in Muslims countries, having religious values- refers to values based on Islamic scriptures such as Quran and Hadiths -was found to positively and significantly influence the perception that humans are entrusted to steward the earth, which in turn nurtures pro-environmental attitudes [49,76,77].

Beliefs of dominion and stewardship emerge as a key construct in understanding adoption of SC among religious consumers. Drawing from White's thesis, studies examining the links between religion, belief of dominion (stewardship) and SC were conducted among Christians. Studies have shown that these beliefs are not equally present among Christian affiliates; rather, the belief seems to depend on the conservative or progressive interpretation of the scriptures. The dominion beliefs is held by Protestant Christian to a greater extent, whereas the stewardship beliefs is shared by Catholics and Orthodox to a lesser extent [79]. As expected, beliefs of dominion were associated with lesser adoption of SC behaviours; similarly, beliefs of stewardship are significantly and positively correlated with SC adoption. Specifically, these beliefs mediate the relationship between religiosity and behavioural intention, with stewardship (dominion) exhibiting a positive (negative) influence on the willingness to pay for sustainable alternatives of common consumer goods [60].

Environmental concern, or the evaluation of the environmental consequents of one's behaviour [80], is considered a consistent predictor of SC attitudes, intention and behaviour [9]. Several studies have examined the relationship between religion and environmental concern. To illustrate, religiosity has been found a moderator construct as it strengthens the intention to consume ecological products [81].

It is important to note that there are other constructs that have been found to weaken or strengthen the relationship between religion and environmental concern. For example, political orientation was found to be a powerful predictor of concern among religious people. More specifically, American Christians with a conservative ideology displayed lower levels of environmental concern, compared to those having a liberal political orientation [58]. This shows again the complex relationship between an individual's religion and political orientation.

Another two constructs were found to moderate the relationship between religion and environmental concern in a multilevel analysis of data from 34 countries [50]. Life satisfaction [82,83] and indulgence as a construct highly dependent on emotion [84] were found to be significant moderators of the relationship between religiosity and environmental concern, measured at the country level. At low levels of life satisfaction, non-religious people have low concern for the environment. This finding is explained by contending that individuals with low life satisfaction are more focused on satisfying basic needs, rather than higher level needs associated with environmental protection. However, religious people show higher levels of environmental concern based on their religiosity, even when their most

basic needs are not satisfied [50]. Yet, these results should be interpreted with caution: this study did not control for the influence of religion on life satisfaction which raises concerns of endogeneity.

Values. Several studies have found that self-transcendence (universalism and benevolence) values positively affect adoption of SC [85,86], whilst self-enhancement values (related to the self-interest, such as achievement and hedonism) negatively affects it. Similarly, it has been repeatedly found that social-altruistic and biospheric value orientation are positively associated with pro-environmental attitudes and behaviour [87,88]. The analysed studies show that the more individuals adhere to self-transcendent values beyond their self-interest (self-enhancement values), the more likely they are to adopt SC. Similarly, an altruistic value orientation, measured through attitude toward charitable institutions, was found to predict sustainable purchase intention and religion, as an antecedent, significantly and positively affect altruism, which in turn affect the intention to purchase green [72]. In contrast, hedonistic shopping values (an egoistic value orientation) is negatively associated with the purchase of sustainable products; however religiosity was found to moderate this negative effect, diminishing it [89].

The results shown above demonstrate that religion may influence SC by impinging on cognitive processes. However, SC behaviour is guided by other factors than cognitive processes, in particular, by automatic or habitual action. Religion may also affect habits. Indeed, for religious people of Muslims countries green purchase intention depended less on attitudes as a predictor. In other words, the purchases of green products not only involve cognitive judgments but also habitual decision making and religious consumers choose sustainable alternatives first based on their habits (habits that are already informed by their religious values), and not only by assessing the green information of products on every purchase occasion [77].

Self-efficacy. The perceived ability to successfully complete an action [90] or the understanding that one could make a difference on environmental and social injustices is an important variable influencing SC behavior. In the sample, only one study examined the relationship between religion and self-efficacy, finding that self-considered religious individuals have self-efficacy beliefs; these, in turn, affect the intention to purchase products that contained a message of socio-ecological justice [91].

Social norms. Regarding the external behaviour factors, only limitedly studies have examined the influence of religion on subjective or social norms [12]. Nonetheless, existing evidence seems to suggest that religion may enable adoption of SC affecting the social norms; the importance that a particular sustainable behavior, like recycling, has for a religious community was found to be the most important predictor of recycling intention [69]. This is what literature called perceived peer endorsement or the relevance of the reference group on the decision-making process [92].

Identity. Many studies have demonstrated the key role of identity-related constructs in explaining adoption of SC [8]. Yet, none of the quantitative studies has examined the association between religion and environmental identity. However, the fact that religion contributes to nurturing a form of green identity is a fundamental conclusion of the analysed qualitative studies. Indeed, these studies have examined the meaning-making practices of informants of their religious identity construct and its influence on SC outcomes. Religious identity [93], strongly influences environmental beliefs and practices of religious leaders [94] and religious environmentalists [95–97]. These studies show that caring for the environment is a religious calling so that their belief in the creation as sacred and the stewardship of the earth drives their everyday practices. Of important note, interviewees understand their identity as holistic, as they involve existential and practical concerns, and include self-identity and identity in context, in relation to others and they try to be coherent in all aspects of their identity and its expression. In doing so, informants try to make gradual, serial and controlled changes on their everyday actions to have a more intense and holistic SC [98]. In general, Christians and Muslims consumers intend to avoid over-consumption and extravagance following their religious principles like austerity and following their perceived association with socio-environmental injustices [96,97,99].

In summary, this review shows that religion influences internal determinants of SC such as attitudes, values and self-efficacy, and external determinants, such as social norms. Also, religious

identity seems to be a central construct to explain SC practices but quantitative papers measuring this association are missing.

5. Discussion

5.1. Main Findings

This systematic review presents an integrative understanding of the influence of individual's religion on adoption of SC. The contribution to literature is threefold. First, this review helps to reconcile conflicting findings of past research by unveiling the methodological and theorical problems that may explain the contradictory results about the relationship between these constructs.

First, the review foregrounds the difficulties in disentangling the religious influence from cultural influences. Saroglou and Cohen [67] already aid that there is a bidirectional influences between religion and culture, which imply that religion is influenced by culture and reciprocally, culture-level dimensions shape religion at the individual level. They point out that cultural elements (for instance, cultural specifics in cognition, emotion, self-concept, morality, personality, and social behaviour) shape religions and religious experience. As far as these cultural influences are universal, they may explain why, to some extent, religion seems to share commonalities across cultural contexts; however, as far as these cultural elements are different across cultural contexts, they lead to group differences in religious expressions. These may be differences between religions, between denominations, or even, between cultural groups of the same religion (e.g., a British Christian and a Peruvian Christian). So, establishing simple causal relationships between religion and SC does not seem a valid approach, insofar as the religion construct cannot be demarcated from other cultural-related constructs.

Second, this review shows the limited validity of affiliate-based measures of religion and the need for religiosity measures [38]. Thus, by differentiating how the dimension of religion had been measured, this review is able to make sense of seemingly divergent findings. Results show that when the measure captures the extent to which the person adheres to the tenets of a religion, the relationship between the constructs is significant and positive. Internal religiosity was found to positive predict SC, leading to conclude that when religion is a fundamental source of identity, values and worldviews the relationship between the constructs is positive. This is consistent with other studies having demonstrated the impact of intrinsic religiosity on consumer ethics [14], consumer's ethical beliefs [100], frugality consciousness and connectedness to nature that affected PEB intention [101].

Another reason for the contradictory results concerns the approach to causation on which the study is based. As said above, simple causal relationships seem to lack internal validity as the routes by which religion may influence behaviour are multiple. Moreover, results seem to point to religion not as a causal variable that can be measured in isolation but as a cross-cutting construct affecting a myriad of others, namely, attitudes, values, habits or social norms. Affiliated or practiced religion nurtures a lifeworld that can mould every aspect of daily life, including SC [102]. Environmental psychology identifies internal or intrapersonal (e.g., attitudes, beliefs, and values), interpersonal (e.g., social norms) and external factors (e.g., rewards and punishments) as the most influential predictors of environmental behaviour [12,103]. RQ2 and RQ3 explored this assumption by showing the multiple psychological underpinnings whereby religion influences SC such as shaping cognitions, habits or identity.

This review has shown that religion may influences beliefs and attitudes that would eventually explain greater SC adoption. The stewardship belief is the most studied belief and its positive association with SC seems well-established. Similarly, past studies have agreed in showing the positive influence of religion on self-transcendence values that, in turn, are associated with sustainable purchase intention. Also, the more the individual practices a religion, the less likely is that s/he has a hedonic goal orientation and the more likely s/he has an altruistic orientation that leads to SC adoption. Abounding on this, religiosity seem to foster altruistic and pro-social behaviours [104].

Whereas the relationship between religiosity and pro-environmental beliefs/values seem well-established in the literature, the relationship between religiosity and self-efficacy beliefs is

underexamined. Notwithstanding, initial evidence seems to suggest that religiosity positively influences these beliefs that, turn, are associated with greater green purchase intention [105–107].

Likewise, the study of the association between religious participation/religiosity and interpersonal influences on SC is still in its infancy. There is some evidence that when religious groups hold a pro-environmental norm about a given behaviour (e.g., recycling), it is more likely that its members carry out this behaviour [107,108] especially those members that identify the most with the group [107]. Abounding on this, each religion not only provides a distinct group identification, but also a "coherent and stable set of norms, institutions, traditions, and moral values that provide the basis for an individual to establish and maintain a secure identity" [13] (p. 5). SC practices are a way to express the religious identity, as qualitative studies have shown, although quantitative studies are still necessary to measure this causal relationship.

5.2. Future Research Agenda

This systematic review indicates that religion at the individual level can drive adoption of SC through its impact on individual's attitudes, values, self-efficacy, social norms and identity. Nonetheless, other routes of influence have gone unexamined. For instance, the influence of religiosity on nature relatedness or social connectedness, two constructs already found predictors of SC, has not been examined. Similarly, there are missing studies examining whether religiosity shapes the construal of ecological problems. It is plausible to assume that religion would nurture intrinsic value aspirations but research has yet to establish this relationship [109].

The influence of religion on emotions remains to be investigated, although affect is considered a determinant of environmental behavior [9]. Future research should explore, for example, the relevance of gratitude or forgiveness, basic emotions across faiths, on environmental behaviour. There are some insights about gratitude as a positive emotion relate to both pollution avoidance and green purchasing intentions [110].

More research is needed about the ability of religion to affect these and the other internal/external antecedents of environmental behaviour and to examine the boundary conditions of this influence.

In addition to enrich the mediating factors whereby religion shapes SC, it is necessary to disentangle this construct to examine its multiple facets so to unveil the multiple ways in which religion may affect SC at the individual level. The integrative measure of religion proposed by Saroglou [33] could be very appropriate for this, for several reasons. First, this scale was found to be reliable across the different religious faiths, solving the problems of others scales that were developed for particular religion affiliations. Second, it associates the four aspects of religion (beliefs, rituals, morality and identity) with distinct psychological processes (cognitive, emotional, moral, and social). Drawing on this basis, Mathras et al. developed a conceptual framework for exploring the effects of religion on general consumer behaviour [111], and it may serve to ask deeper questions about what salient aspects of religion drives SC behaviour.

Among the religious beliefs, beliefs about the after-life are a common characteristic across confessions [111]. It has been proven to reduce levels of death anxiety that result in less materialism [112]. Given that materialism is negatively associated with SC adoption because implies values and goals focused on possessions and status that standing in conflict whit the well-being of others and the natural word [113], beliefs in after-life may be a particular religion facet that can contribute to greater SC.

Ritual is another dimension of all religions that affects consumer behaviour. Religious practices of cleansing rituals [111] has the potential to transform individuals from a small self to a greater self [114] that is expressed on leaving, for example, a green transgression. A preliminary study shows that Catholics demonstrate more environmentally friendly behaviours after confession (versus only intellectual reflection) about sins against the environment [115]. Likewise, praying as a religious practice may foster SC, as it is suggested by studies on mindfulness and SC [116,117]. Future studies should examine the link between the practice of praying and SC adoption.

Regarding the morality and the identity facets of religion, there are missing studies examining the mediating role of moral identity [118] in the relationship between religion and environmental behaviour. This omission is relevant since moral identity was found to increase, for example, the willingness to choose green products [119]. Moral identity is related to certain beliefs, attitudes, and behaviours, particularly when that identity is highly self-important [120], as it is for religious people [121]. Also, the role of virtues like prudence, simplicity, non-violence, compassion, humility, nurtured by all religions [122] is other research avenue, because of their direct relationship with SC adoption [123,124]. Finally, the evidence shows that some types of religious beliefs, cognition and behaviour foster self-regulation and self-control [125] and future studies should link it with SC outcomes such as frugality and reduction of consumption, that necessarily implies the self-regulatory strength. These are some of the many ways in which religion could foster SC at the individual level, and this systematic review encourages scholars to advance research in these unexamined areas.

In summary, this research agenda encourage scholars to study other unexamined mediating constructs -such as beliefs in after life, cleansing rituals and prayer, moral emotions, moral identity, the role of virtues and self-restraint- that could enhance the understanding of the influence of religion on SC.

5.3. Limitations

No study goes without limitations. As it has been the case of other systematic reviews, we privileged Web of Science and Scopus as the source of studies; however, publications that were not indexed in the chosen databases are not included in this study. The results of this systematic review should be taken as a starting point for academic debate and research and not as closed conclusions. Finally, researchers should be careful about constructs that may overlap with religion such as political orientation; the evidence found for this systematic review is inconclusive in this regard and indicates the need to analyse this in more depth to reach certain conclusions. Also, we did not carry out a quality check of studies as a criterion to screen in/out studies. Indeed, some of the reported studies may raise concerns of construct validity, endogeneity, and reverse causality. However, given the limited set of studies we decided to include them all and discuss the methodological limitations as a reason for the inconclusive findings.

6. Conclusions

This systematic review has shown there is evidence to suggest that individual's religion may play an important role in shaping SC. It integrates the existing studies by analyzing a potential causal relationship between religion and SC. This study shows that religion at the individual level drives SC behavior indirectly through its impact on other proven antecedents of SC, such as attitudes, values, self-efficacy, social norms and identity. In addition to enrich the mediating factors whereby religion shapes SC, the research agenda encourage scholars to disentangle the construct "religion" in its facets (related to specific psychological processes) so to unveil the multiple ways in which religion may affect SC. The development of a comprehensive understanding of the influence of religiosity on SC will allow advancing research in this domain and suggestions are given in this respect. In sum, this paper foregrounds the potential of religiosity to foster adoption of sustainable lifestyles, which, in turn, benefits the whole society and the natural world.

Appendix A

Table A1. PRISMA Checklist.

Section/Topic	#	Checklist Item	Reported on Page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	1
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	1–4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	2
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	-
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	4
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	4
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	4
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	4,5
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	5
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	5
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	5
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	5,6
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	6

Table A1. *Cont.*

Section/Topic	#	Checklist Item	Reported on Page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	5
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	-
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Figure 1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	6
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	6
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Appendix B
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	6–9
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	-
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression (see Item 16).	-
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	9–12
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	12
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	12
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	12

Appendix B

Table A2. Final List of Articles Included in the Systematic Review.

Author/Year of Publication	Direction of the Influence of Religion on SC
Quantitative studies	
Klineberg, McKeever & Rothenbach (1998)	Not significant
Rice (2006)	Positive
Bove, Nagpal & Dorsett (2006)	Not significant
Chauhan, Rama das, Haigh & Rita (2010)	Positive
Witkowski & Reddy (2010)	Positive
Doran & Natale (2011)	Positive
Warner, Brook & Shaw (2012)	Positive
Clements, McCright & Xiao (2013)	Negative
Garfield, Drwecki, Moore, Kortenkamp & Gracz (2014)	Positive
Hassan (2014)	Positive
Martin & Bateman (2014)	Positive
Minton, Kahle & Kim (2015)	Positive
Minton, Jiuan, Kahle & Tambyah (2015)	Positive
Diaz, Vélez & Costa (2015)	Negative
Akremi & Smaoui (2015)	Positive
Leary, Minton & Mittelstaedt (2016)	Negative
Liobikienè, Niaura, Mandravickaitè & Vabuolas (2016)	Positive
Peeper & Leonard (2016)	Negative
Ariswibowo & Ghazali (2017)	Positive
Arli & Tjiptono (2017)	Positive
Bhuian & Sharma (2017)	Positive
Davari, Iyer & Strutton (2017)	Positive
Graafland (2017)	Positive
Ghazali, Mutum & Ariswibowo (2018)	Positive
Hwang (2018)	Positive
Lakhan (2018)	Positive
Yang & Huang (2018)	Not significant
Felix, hinsch, Rauschnabel & Schlegelmilch (2018)	Positive
Minton, Leary & Upadhyaya (2018)	Positive
Minton, Xie, Gurel-Atay & Kahle (2018)	Positive
Razzaq, Z., Razzaq, A., Yousaf & Hong (2018)	Positive
Ali, Danish, Khuwaja, Sajjad & Zahid (2019)	Positive
Gutsche (2019)	Positive
Hammed, Waris & Amin ul Haq (2019)	Positive
Ukenna, Nkamnebe & Idoko (2019)	Negative
Qualitative studies	
Lorenzen (2012)	Positive
Warner, Brook & Shaw (2012)	Positive
Waylen Fischer McGowan & Milner -Gulland (2012)	Positive
Akremi & Smaoui (2015)	Positive
Lorenzen (2017)	Positive
Perera and Hewege (2018)	Positive

Table A2. *Cont.*

Author/Year of Publication	Direction of the Influence of Religion on SC
Conceptual papers	
Emmons & Paloutzian (2003)	
Narayanan (2010)	
Witkowski (2010)	
Papaoikonomou, Ryan & Valverde (2011)	
Azizan &Wahid (2012)	
Chaminda & Ratnayake (2013)	
Zaleha (2013)	
Gifford & Nilsson (2014)	
Van der Noortgaete & De Tavernier (2014)	
Van der Noortgaete (2016)	
Taylor (2016)	
Taylor, Van Wieren & Zaleha (2016)	
Quoquaba & Mohammadb (2016)	

References

1. Bengtsson, M. Transforming systems of consumption and production for achieving the sustainable development goals: Moving beyond efficiency. *Sustain. Sci.* **2018**, *13*, 1533–1547. [CrossRef]

2. *United Nations The Sustainable Development Goals Report 2020*; UN: New York, NY, USA, 2020.

3. UNEP: Division of Technology, Industry, and Economics Sustainable Consumption & Production Branc. In *Visions For Change. Recommendations for Effective Policies on Sustainable Lifestyles*; United Nations Environment Programme Task Force on Sustainable Lifestyles: Nairobi, Kenya, 2011.

4. Hackett, C.; Grim, B.J. The Global Religious Landscape. *Pew Res. Cent. Rep.* **2012**, *1*, 81.

5. Palmer, M.; Finlay, V. *Faith in Conservation, New Approaches to Religions and the Environment*; The World Bank: Washington, DC, USA, 2003; ISBN 0821355597.

6. Rice, G. Pro-environmental behavior in Egypt: Is there a role for Islamic environmental ethics? *J. Bus. Ethics* **2006**, *65*, 373–390. [CrossRef]

7. Rolston III, H. Science and Religion in the Face of the Environmental Crisis. In *The Oxford Handbook of Religion and Ecology*; Gottlieb, R.S., Ed.; Oxford University Press: Oxford, UK, 2009; pp. 1–22, ISBN 9780199892136.

8. Gifford, R.; Nilsson, A. Personal and social factors that influence pro-environmental concern and behaviour: A review. *Int. J. Psychol.* **2014**, *49*, 141–157. [CrossRef]

9. Steg, L.; Vlek, C. Encouraging pro-environmental behaviour: An integrative review and research agenda. *J. Environ. Psychol.* **2009**, *29*, 309–317. [CrossRef]

10. Osbaldiston, R.; Schott, J.P. Environmental sustainability and behavioral science: Meta-analysis of proenvironmental behavior experiments. *Environ. Behav.* **2012**, *44*, 257–299. [CrossRef]

11. Emmons, R.; Paloutzian, R. The psychology of religion. *Annu. Revis. Psychol.* **2003**, 377–402. [CrossRef]

12. Clayton, S.; Myers, G. *Conservation Psychology: Understanding and Promoting Human Care for Nature*; John Wiley & Sons: Chichester, UK, 2015; ISBN 978-1-444-35641-0.

13. Coşgel, M.M.; Minkler, L. Religious identity and consumption. *Rev. Soc. Econ.* **2004**, *62*, 339–350. [CrossRef]

14. Vitell, S.J. The Role of Religiosity in Business and Consumer Ethics: A Review of the Literature. *J. Bus. Ethics* **2009**, *90*, 155–167. [CrossRef]

15. Mokhlis, S. Religious Differences in Some Selected Aspects of Consumer Behaviour: A Malaysian Study. *J. Int. Manag.* **2009**, *4*, 67–76.

16. Essoo, N.; Dibb, S. Religious Influences on Shopping Behaviour: An Exploratory Study. *J. Mark. Manag.* **2004**, *20*, 638–712. [CrossRef]

17. Stillman, T.F.; Fincham, F.D.; Vohs, K.D.; Lambert, N.M.; Phillips, C.A. The material and immaterial in conflict: Spirituality reduces conspicuous consumption. *J. Econ. Psychol.* **2012**, *33*, 1–7. [CrossRef]

18. Djupe, P.A.; Hunt, P.K. Beyond the Lynn White Thesis: Congregational Effects on Environmental Concern. *J. Sci. Study Relig.* **2009**, *48*, 670–686. [CrossRef]

19. Hand, C.M.; Van Liere, K.D. Religion, Mastery-Over-Nature, and Environmental Concern. *Soc. Forces* **1984**, *63*, 555–570. [CrossRef]

20. Woodrum, E.; Hoban, T. Theology and Religiosity Effects on Environmentalism. *Rev. Relig. Res.* **1994**, *35*, 193–206. [CrossRef]

21. Wolkomir, M.; Futreal, M.; Woodrum, E.; Hoban, T. Substantive Religious Belief and Environmentalism. *Soc. Sci. Q.* **1997**, *78*, 96–108.

22. Taylor, B.; Van Wieren, G.; Zaleha, B. The Greening of Religion Hypothesis (Part Two): Assessing the data from Lynn White, Jr, to Pope Francis. *J. Study Relig. Nat. Cult.* **2016**, *10*, 306–378. [CrossRef]

23. Tucker, M.E. World Religions, the Earth Charter, and Sustainability. *Worldviews* **2008**, *12*, 115–128. [CrossRef]

24. Freyer, B.; Aversano-Dearborn, V.; Winkler, G.; Leipold, S.; Haidl, H.; Karl, A.; Brand, W.; Rosenberger, M.; Wallnig, T. Is there a Relation Between Ecological Practices and Spirituality? The Case of Benedictine Monasteries Ecological Practices in Benedictine Monasteries. *J. Agric. Environ. Ethics* **2018**, *31*, 559–582. [CrossRef]

25. Di Fabio, A.; Rosen, M.A. Opening the Black Box of Psychological Processes in the Science of Sustainable Development: A New Frontier Opening the Black Box of Psychological Processes in the Science of Sustainable Development: A New Frontier. *Eur. J. Sustain. Dev.* **2018**, *2*, 2542–4742. [CrossRef]

26. United Nations Goal 12: Ensure Sustainable Consumption and Production Patterns. Available online: https://www.un.org/sustainabledevelopment/sustainable-consumption-production/ (accessed on 25 May 2020).

27. Papaoikonomou, E. Sustainable lifestyles in an urban context: Towards a holistic understanding of ethical consumer behaviours. Empirical evidence from Catalonia, Spain. *Int. J. Consum. Stud.* **2012**, *37*, 181–188. [CrossRef]

28. Kollmuss, A.; Agyeman, J. Environmental Education Research Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environ. Educ. Res.* **2002**, *8*, 240–260. [CrossRef]

29. Chidester, D. *Empire of Religion. Imperialism and Comparative Religion*; University of Chicago Press: Chicago, IL, USA, 2013; ISBN 978-0-226-11726-3.

30. Tinker, T. Why I do not believe in a creator. In *Buffalo Shout, Salmon Cry: Conversations on Creation, Land Justice, and Life Together*; Heinrichs, S., Ed.; Herald Press: Waterloo, ON, Canada, 2013; ISBN 9780836196894.

31. Taylor, B. The Greening of Religion Hypothesis (Part One): From Lynn White, Jr and claims that religions can promote environmentally destructive attitudes and behaviors to assertions they are becoming environmentally friendly. *J. Study Relig. Nat. Cult.* **2016**, *10*, 268–305. [CrossRef]

32. Schmidt, R.; Sager, G.C.; Carney, G.; Jackson, J.J.; Zanca, K.; Muller, A.; Jackson, J. *Patterns of Religion*; Wadsworth Publishing: Belmont, CA, USA, 1999.

33. Saroglou, V. Believing, bonding, behaving, and belonging: The big four religious dimensions and cultural variation. *J. Cross. Cult. Psychol.* **2011**, *42*, 1320–1340. [CrossRef]

34. Zinnbauer, B.J.; Pargament, K.I.; Scott, A.B. The Emerging Meanings of Religiousness and Spirituality: Problems and Prospects. *J. Pers.* **1999**, *67*, 889–919. [CrossRef]

35. Masuzawa, T. *The Invention of World Religions: Or, How European Universalism Was Preserved in the Language of Pluralism*; Bibliovault OAI Repos. Univ. Chicago Press: Chicago, IL, USA, 2007. [CrossRef]

36. Agarwala, R.; Mishra, P.; Singh, R. Religiosity and consumer behavior: A summarizing review. *J. Manag. Spiritual. Relig.* **2019**, *16*, 32–54. [CrossRef]

37. Delener, N. The Effects of Religious Factors on Perceived Risk in Durable Goods Purchase Decisions. *J. Consum. Mark.* **1990**, *7*, 27–38. [CrossRef]

38. Mokhlis, S. Relevancy and Measurement of Religiosity in Consumer Behavior Research. *Int. Bus. Res.* **2009**, *2*, 75–84. [CrossRef]

39. Alston, J. Three Measures of Current Levels of Religiosity. *J. Sci. Study Relig.* **1975**, *14*, 165–168. [CrossRef]

40. Cosgel, M.; Minkler, L. Rationality, Integrity, and Religious Behavior. *J. Socio-Econ.* **2004**, *33*, 329–341.

41. Worthington, E.L., Jr.; Wade, N.G.; Hight, T.L.; Ripley, J.S.; McCullough, M.E.; Berry, J.W.; Schmitt, M.M.; Berry, J.T.; Bursley, K.H.; O'Connor, L. The Religious Commitment Inventory—10: Development, refinement, and validation of a brief scale for research and counseling. *J. Couns. Psychol.* **2003**, *50*, 84–96. [CrossRef]

42. Allport, G.W.; Ross, J.M. Personal religious orientation and prejudice. *J. Pers. Soc. Psychol.* **1967**, *5*, 432–443. [CrossRef]

43. Tranfield, D.; Denyer, D.; Smart, P. Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *Br. J. Manag.* **2003**, *14*, 207–222. [CrossRef]

44. Moher, D.; Liberati, A.; Tetzlaff, J.; Altman, D.G.; PRISMA, G. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Phys. Ther.* **2009**, *89*, 873–880. [CrossRef]

45. Narayanan, Y. Sustainable consumption as a means to self-realization: A Hindu perspective on when enough is enough. *Sustain. Dev.* **2010**, *18*, 252–259. [CrossRef]

46. Van Den Noortgaete, F. Generous being: The environmental-ethical relevance of ontological gratitude. *Ethics Environ.* **2016**, *21*, 119–142. [CrossRef]

47. Witkowski, T.H.; Reddy, S. Antecedents of ethical consumption activities in Germany and the United States. *Australas. Mark. J.* **2010**, *18*, 8–14. [CrossRef]

48. Minton, E.; Kahle, L.; Kim, C. Religion and motives for sustainable behaviors: A cross-cultural comparison and contrast. *J. Bus. Res.* **2015**, *68*, 1937–1944. [CrossRef]

49. Ghazali, E.M.; Mutum, D.S.; Ariswibowo, N. Impact of religious values and habit on an extended green purchase behaviour model. *Int. J. Consum. Stud.* **2018**, *42*, 639–654. [CrossRef]

50. Felix, R.; Hinsch, C.; Rauschnabel, P.A.; Schlegelmilch, B.B. Religiousness and environmental concern: A multilevel and multi-country analysis of the role of life satisfaction and indulgence. *J. Bus. Res.* **2018**, *91*, 304–312. [CrossRef]

51. White, L. The Historical Roots of Our Ecologic Crisis. *Science* **1967**, *155*, 1203–1207. [CrossRef] [PubMed]

52. Arli, D.; Tjiptono, F. God and green: Investigating the impact of religiousness on green marketing. *Int. J. Nonprofit Volunt. Sect. Mark.* **2017**, *22*, 1–11. [CrossRef]

53. Graafland, J. Religiosity, Attitude, and the Demand for Socially Responsible Products. *J. Bus. Ethics* **2017**, *144*, 121–138. [CrossRef]

54. Gutsche, G. Individual and Regional Christian Religion and the Consideration of Sustainable Criteria in Consumption and Investment Decisions: An Exploratory Econometric Analysis. *J. Bus. Ethics* **2019**, *157*, 1155–1182. [CrossRef]

55. Liobikienė, G.; Niaura, A.; Mandravickaitė, J.; Vabuolas, Ž. Does religiosity influence environmental attitude and behaviour? The case of young Lithuanians. *Eur. J. Sci. Theol.* **2016**, *12*, 81–96.

56. Martin, W.C.; Bateman, C.R. Consumer religious commitment's influence on ecocentric attitudes and behavior. *J. Bus. Res.* **2014**, *67*, 5–11. [CrossRef]

57. Díaz, E.M.; Vélez, G.P.; Costa, P.M. Environmental beliefs and ideology in Chilean population. *Universum* **2015**, *30*, 219–236. [CrossRef]

58. Clements, J.M.; McCright, A.M.; Xiao, C. Green Christians? An Empirical Examination of Environmental Concern Within the U.S. General Public. *Organ. Environ.* **2013**, *27*, 85–102. [CrossRef]

59. Yang, Y.; Huang, S. Religious beliefs and environmental behaviors in China. *Religions* **2018**, *9*, 72. [CrossRef]

60. Leary, B.; Minton, E.; Mittelstaedt, J. Thou Shall Not? The Influence of Religion on Beliefs of Stewardship and Dominion, Sustainable Behaviors, and Marketing Systems. *J. Macromark.* **2016**, *36*, 457–470. [CrossRef]

61. Ukenna, S.; Nkamnebe, A.; Idoko, E. Inhibitors of sustainable consumption: Insights from university academic staff in southern Nigeria. *Sustain. Dev.* **2019**, *27*, 96–108. [CrossRef]

62. Doran, C.J.; Natale, S.M. e{open}'μπάθε{open}ια (Empatheia) and Caritas: The Role of Religion in Fair Trade Consumption. *J. Bus. Ethics* **2011**, *98*, 1–15. [CrossRef]

63. Hwang, H. Do religion and religiosity affect consumers' intentions to adopt pro-environmental behaviours? *Int. J. Consum. Stud.* **2018**, *42*, 664–674. [CrossRef]

64. Minton, E.A.; Kahle, L.R.; Jiuan, T.S.; Tambyah, S.K. Addressing Criticisms of Global Religion Research: A Consumption-Based Exploration of Status and Materialism, Sustainability, and Volunteering Behavior. *J. Sci. Study Relig.* **2016**, *55*, 365–383. [CrossRef]

65. Chuvieco, E.; Burgui, M.; Gallego-Álvarez, I. Impacts of Religious Beliefs on Environmental Indicators Is Christianity More Aggressive Than Other Religions? *Worldviews* **2016**, *20*, 251–271. [CrossRef]

66. Hirschman, E.C. Religious affiliation and consumption processes. An initial paradigm. *Res. Mark.* **1983**, *6*, 31–170.

67. Saroglou, V.; Cohen, A.B. Psychology of culture and religion: Introduction to the JCCP special issue. *J. Cross. Cult. Psychol.* **2011**, *42*, 1309–1319. [CrossRef]

68. Markle, G.L. Pro-Environmental Behavior: Does It Matter How It's Measured? Development and Validation of the Pro-Environmental Behavior Scale (PEBS). *Hum. Ecol.* **2013**, *41*, 905–914. [CrossRef]

69. Lakhan, C. The garbage gospel: Using the theory of planned behavior to explain the role of religious institutions in affecting pro-environmental behavior among ethnic minorities. *J. Environ. Educ.* **2018**, *49*, 43–58. [CrossRef]

70. Minton, E. Religion and Religiosity ' s Influence on Sustainable Consumption Behaviors: An Exploratory Study. In *Communicating Sustainability for the Green Economy*; Kahle, L.R., Gurel-Atay, E., Eds.; M.E.Sharpe, Inc.: New York, NY, USA, 2014; pp. 73–87. ISBN 7980765636805.

71. Minton, E.; Jeffrey Xie, H.; Gurel-Atay, E.; Kahle, L.R. Greening up because of god: The relations among religion, sustainable consumption and subjective well-being. *Int. J. Consum. Stud.* **2018**, *42*, 655–663. [CrossRef]

72. Davari, A.; Iyer, P.; Strutton, D. Investigating Moral Links Between Religiosity, Altruism, and Green Consumption. *J. Nonprofit Public Sect. Mark.* **2017**, *29*, 385–414. [CrossRef]

73. Hameed, I.; Waris, I.; Amin ul Haq, M. Predicting eco-conscious consumer behavior using theory of planned behavior in Pakistan. *Environ. Sci. Pollut. Res.* **2019**, 15535–15547. [CrossRef] [PubMed]

74. Sherkat, D.E.; Ellison, C.G. Structuring the religion-environment connection: Identifying religious influences on environmental concern and activism. *J. Sci. Study Relig.* **2007**, *46*, 71–85. [CrossRef]

75. Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [CrossRef]

76. Hassan, S.H. The role of Islamic values on green purchase intention. *J. Islam. Mark.* **2014**, *5*, 379–395. [CrossRef]

77. Ariswibowo, N.; Ghazali, E. The Role of Religious Value and Environmental Knowledge on Green Purchase Behaviours of Muslim Consumers. *Organ. Stud. Innov.* **2017**, *4*, 34–56.

78. Ewert, A.; Baker, D. Standing for Where You Sit: An Exploratory Analysis of the Relationship between Academic Major and Environment Beliefs. *Environ. Behav.* **2001**, *33*, 687–707. [CrossRef]

79. Jones, R.; Cox, D.; Navarro-Rivera, J.; Dionne, E.J.J.; Galston, W. *Do Americans Believe Capitalism and Government Are Working? Religious Left, Religious Right and the Future of the Economic Debate*; Public Religion Research Institute and The Brookings Institution: Washington, DC, USA, 2013.

80. Fransson, N.; Gärling, T. Environmental concern: Conceptual definitions, measurement methods, and research findings. *J. Environ. Psychol.* **1999**, *19*, 369–382. [CrossRef]

81. Bhuian, S.; Sharma, S.K. Predicting consumer pro-environmental behavioral intention: The moderating role of religiosity. *Rev. Int. Bus. Strateg.* **2017**, *27*, 352–368. [CrossRef]

82. Diener, E.; Emmons, R.A.; Larsen, R.J.; Griffin, S. The Satisfaction With Life Scale. *J. Pers. Assess.* **1985**, *49*, 71–75. [CrossRef]

83. Diener, E.; Inglehart, R.; Tay, L. Theory and Validity of Life Satisfaction Scales. *Soc. Indic. Res.* **2013**, *112*, 497–527. [CrossRef]

84. Wilcox, K.; Kramer, T.; Sen, S. Indulgence or Self-Control: A Dual Process Model of the Effect of Incidental Pride on Indulgent Choice. *J. Consum. Res.* **2010**, *38*, 151–163. [CrossRef]

85. Schwartz, S.H. A Theory of Cultural Values and Some Implications for Work. *Appl. Psychol. Int. Rev.* **1999**, *48*, 23–47. [CrossRef]

86. Schwartz, S.H. An overreview of the Schwartz theory of basic values. *Online Read. Psychol. Cult.* **2012**, *2*, 1–20. [CrossRef]

87. Stern, P.C.; Dietz, T.; Abel, T.; Guagnano, G.A.; Kalof, L. A value-belief-norm theory of support for social movements: The case of environmentalism. *Hum. Ecol. Rev.* **1999**, *6*, 81–97.

88. Stern, P.C. New Environmental Theories: Toward a Coherent Theory of Environmentally Significant Behavior. *J. Soc. Issues* **2000**, *56*, 407–424. [CrossRef]

89. Razzaq, Z.; Razzaq, A.; Yousaf, S.; Hong, Z. The Impact of Utilitarian and Hedonistic Shopping Values on Sustainable Fashion Consumption: The Moderating Role of Religiosity. *Glob. Bus. Rev.* **2018**, *19*, 1224–1239. [CrossRef]

90. Bandura, A. Self-efficacy: Toward a Unifing Theory of Behavioral Change. *Psychol. Rev.* **1977**, *84*, 191–215. [CrossRef]

91. Minton, E.A.; Bret Leary, R.; Upadhyaya, S. Religion's influence on consumer response to moral vs. justice message appeals. *Int. J. Consum. Stud.* **2018**, *42*, 768–778. [CrossRef]

92. Cialdini, R.; Reno, R.; Kallgren, C. A Focus Theory of Normative Conduct: Recycling the Concept of Norms to Reduce Littering in Public Places. *J. Pers. Soc. Psychol.* **1990**, *58*, 1015–1026. [CrossRef]

93. Werbner, P. Religious identity. In *The SAGE Handbook of Identities*; Wetherell, M., Mohanty, C.T., Eds.; SAGE Publications Ltd.: London, UK, 2010; pp. 233–257, ISBN 9781446200889.

94. Warner, K.D.; Brook, A.; Shaw, K. Facilitating religious environmentalism: Ethnology plus conservation psychology tools can assess an interfaith environmental intervention. *Worldviews Environ. Cult. Relig.* **2012**, *16*, 111–134. [CrossRef]

95. Waylen, K.A.; Fischer, A.; McGowan, P.J.K.; Milner-Gulland, E.J. Interactions Between a Collectivist Culture and Buddhist Teachings Influence Environmental Concerns and Behaviors in the Republic of Kalmykia, Russia. *Soc. Nat. Resour.* **2012**, *25*, 1118–1133. [CrossRef]

96. Lorenzen, J.A. Going Green: The Process of Lifestyle Change. *Sociol. Forum* **2012**, *27*, 94–116. [CrossRef]

97. Lorenzen, J.A. Social Network Challenges to Reducing Consumption: The Problem of Gift Giving. *Symb. Interact.* **2018**, *41*, 247–266. [CrossRef]

98. Perera, C.; Hewege, C. Religiosity and Environmentally Concerned Consumer Behaviour: 'becoming one with God (nature)' through Surrendering Environmental Identities. *Int. J. Consum. Stud.* **2018**, *42*, 627–638. [CrossRef]

99. Akremi, A.; Smaoui, F. Socially Responsible Consumption in Emerging Markets: Do Cultural Values and Religiosity Matter? In Proceedings of the Marketing Spring Colloquy (MSC), Verona, Italy, 16–18 September 2015; pp. 46–60.

100. Schneider, H.; Krieger, J.; Bayraktar, A. The Impact of Intrinsic Religiosity on Consumers' Ethical Beliefs: Does It Depend on the Type of Religion? A Comparison of Christian and Moslem Consumers in Germany and Turkey. *J. Bus. Ethics* **2011**, *102*, 319–332. [CrossRef]

101. Wang, S.; Wang, J.; Li, J.; Zhou, K. How and when does religiosity contribute to tourists' intention to behave pro-environmentally in hotels? *J. Sustain. Tour.* **2020**, *28*, 1120–1137. [CrossRef]

102. Geertz, C. Religion as a cultural system. In *The Interpretation of Cultures: Selected Essays*; Fontana Press: Oxford, UK, 1993; pp. 87–125. ISBN 0006862608.

103. Kormos, C.; Gifford, R. The validity of self-report measures of proenvironmental behavior: Ameta-analytic review. *J. Environ. Psychol.* **2014**, *40*, 359–371. [CrossRef]

104. Wilson, J.; Musick, M. Who cares? Toward an integrated theory of volunteer work. *Am. Sociol. Rev.* **1997**, *62*, 694–713. [CrossRef]

105. Gupta, S.; Ogden, D.T. To buy or not to buy? A social dilemma perspective on green buying. *J. Consum. Mark.* **2009**, *26*, 378–393. [CrossRef]

106. Sachdeva, S. Religious Identity, Beliefs, and Views about Climate Change. 2016. Available online: http://dx.doi.org/10.1093/acrefore/9780190228620.013.335 (accessed on 14 July 2020).

107. Joshi, Y.; Rahman, Z. Factors Affecting Green Purchase Behaviour and Future Research Directions. *Int. Strateg. Manag. Rev.* **2015**, *3*, 128–143. [CrossRef]

108. Lim, C.; Putnam, R.D. Religion, social networks, and life satisfaction. *Am. Sociol. Rev.* **2010**, *75*, 914–933. [CrossRef]

109. Hurst, M.; Dittmar, H.; Bond, R.; Kasser, T. The relationship between materialistic values and environmental attitudes and behaviors: A meta-analysis. *J. Environ. Psychol.* **2013**, *36*, 257–269. [CrossRef]

110. Liang, D.; Hou, C.; Jo, M.S.; Sarigöllü, E. Pollution avoidance and green purchase: The role of moral emotions. *J. Clean. Prod.* **2019**, *210*, 1301–1310. [CrossRef]

111. Mathras, D.; Cohen, A.B.; Mandel, N.; Mick, D.G. The effects of religion on consumer behavior: A conceptual framework and research agenda. *J. Consum. Psychol.* **2016**, *26*, 298–311. [CrossRef]

112. Kasser, T.; Sheldon, K.M. Of Wealth and Death: Materialism, Mortality Salience, and Consumption Behavior. *Psychol. Sci.* **2000**, *11*, 348–351. [CrossRef]

113. Kasser, T. Materialistic Values and Goals. *Annu. Rev. Psychol.* **2016**, *67*, 489–514. [CrossRef]

114. Grim, J.; Tucker, M.E. *Ecology and Religion. Foundations of Contemporary Studies*; Island Press: Washington DC, USA, 2014; ISBN 1610912357.

115. Mathras, D. *Consumer Confessions*; Arizona State University: Tempe, AZ, USA, 2015; ISBN 1321719353.

116. Wamsler, C.; Brossmann, J.; Hendersson, H.; Kristjansdottir, R.; McDonald, C.; Scarampi, P. Mindfulness in sustainability science, practice, and teaching. *Sustain. Sci.* **2018**, *13*, 143–162. [CrossRef]

117. Fischer, D.; Stanszus, L.; Geiger, S.; Grossman, P.; Schrader, U. Mindfulness and sustainable consumption: A systematic literature review of research approaches and findings. *J. Clean. Prod.* **2017**, *162*, 544–558. [CrossRef]

118. Jia, F.; Soucie, K.; Alisat, S.; Curtin, D.; Pratt, M. Are environmental issues moral issues? Moral identity in relation to protecting the natural world. *J. Environ. Psychol.* **2017**, *52*, 104–113. [CrossRef]

119. Wu, B.; Yang, Z. The impact of moral identity on consumers' green consumption tendency: The role of perceived responsibility for environmental damage. *J. Environ. Psychol.* **2018**, *59*, 74–84. [CrossRef]

120. Aquino, K.; Americus, R. The self-importance of moral identity. *J. Pers. Soc. Psychol.* **2002**, *83*, 1423–1440. [CrossRef] [PubMed]

121. Vitell, S.J.; King, R.A.; Howie, K.; Toti, J.F.; Albert, L.; Hidalgo, E.R.; Yacout, O. Spirituality, Moral Identity, and Consumer Ethics: A Multi-cultural Study. *J. Bus. Ethics* **2016**, *139*, 147–160. [CrossRef]

122. Peterson, C.; Seligman, M.E.P. *Character Strengths and Virtues: A Handbook and Classification*; Oxford University Press: Oxford, UK, 2004; Volume 42, ISBN 0195167015.

123. Corral-Verdugo, V.; Tapia-Fonllem, C.; Ortiz-Valdez, A. On the Relationship Between Character Strengths and Sustainable Behavior. *Environ. Behav.* **2014**, *47*, 877–901. [CrossRef]

124. Valor, C.; Antonetti, P.; Merino, A. The relationship between moral competences and sustainable consumption among higher education students. *J. Clean. Prod.* **2020**, *248*, 119161. [CrossRef]

125. Mccullough, M.; Willoughby, B. Religion, Self-Regulation, and Self-Control: Associations, Explanations, and Implications. *Psychol. Bull.* **2009**, *135*, 69–93. [CrossRef]