Article

Does Nationality Matter in Eco-Behaviour?

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Abstract: Although many authors agree on the role of personal values in explaining the main determinants of eco-behaviour, disagreement about the effects of socio-demographic features exists, particularly about the effect of nationality. In an attempt to fill this gap in the literature, this paper contributes to the debate surrounding the main determinants of eco-behaviour, based on a cross-country analysis. To test the role of nationality and personal values in eco-behaviour, a linear regression model involving 353 Chinese and 333 Italian subjects was performed. A stepwise analysis was then conducted to identify the main significant effects. The explorative and stepwise analyses confirmed that nationality is significant when explaining individual eco-behaviour, for both Italian and Chinese people. Moreover, the linear regression model, as a stepwise analysis, showed that regulatory focus and universalism are the main personal values influencing ecological behaviour. Differences emerging from the analysis show significant differences in terms of eco-behaviour and eco-awareness, for the two countries involved in the analysis, that might lead companies to adopt different marketing strategies when promoting eco-products.

Keywords: eco-behaviour; eco-awareness; eco-responsibility; nationality; personal values; cross-national study

1. Introduction

From a global perspective, the adoption of pro-environmental behaviours by most industrialized countries is not automatic, and requires the joint efforts of all principal stakeholders, including governments, businesses, and individual consumers. As customer adoption of new ideas depends on the media, culture, the legal environment, and other relevant aspects [1], investigating any differences in adopting pro-environmental behaviour has become crucial.

Even given the relevance of this topic, the literature shows that it is difficult to understand and predict pro-environmental behaviour [2]. The numerous definitions for ecological behaviour are sometimes similar, and they depend on the aims of the research itself, the variables used, and the methods adopted, all of which contribute to making this a complex phenomenon.

With the growing focus on environmentally-friendly behaviour, many authors [3–10] have researched its antecedents and determinants. Even though pro-environmental behaviour research has developed in different directions [11], including the socio-demographic or psychological determinants of individual ecological behaviour [12,13], we can still consider the impact of nationality as one of the most challenging topics. Even if nationality differences have been included in many studies [14,15], inter-country analysis is not as common in the pro-environmental behaviour literature, especially involving non-American countries.

Our aim was to identify the main variables affecting ecological behaviour using an inter-country analysis between Italy and China, focusing on the role played by nationality in explaining individual eco-behaviour.

Section 2 is a literature review of the main determinants of eco-behaviour, with a focus on those used in our analysis, including nationality, personal values, regulatory focus, and time. Subsequently, we describe the different eco-constructs used in the analysis. Section 3 reports the methodology used, and in Section 4, the results of the linear regression model and the stepwise analysis is provided. Finally, Section 5 discusses our main conclusions.

2. Literature Review

2.1. Nationality and Eco-Behaviour

Numerous authors have found specific correlations between socio-demographic features and pro-environmental behaviour [13,16–21]. The consumer that has a greater awareness of environmental issues tends to be younger, with a higher level of education, comes from a wealthy family, and has a good employment status. Nevertheless, the literature does give divergent results. Webster [22], while recognizing that socially responsible consumers are usually non-conformist middle class from wealthy families, also argued that demographic characteristics cannot be regarded as predictors of consumer behaviour. Conflicting results have also emerged from green consumer profiling [23,24]. Some authors investigated country-specific demographic variables, as in the case of Jain and Kaur [25] in India and Banyte et al. [26] in Lithuania. Albayrak et al. [27], in agreement with Sandahl and Robertson [28], highlighted that demographic variables are not the most reliable and are not the only determinants of environmental concern and ecological behaviour.

The reason for differences in business ethics across countries may be related to differences in cultures, since culture affects moral orientations such as idealism and relativism [29,30]. In the context of cultural differences, Buller et al. [31] wondered whether a common business ethics core exists across cultures, but also whether widespread differences could be found in the level of ethical standards.

From a theoretical perspective, researchers have attempted to apply Hofstede's [32] cultural constructs of individualism and collectivism in cross-cultural models of ethical decision making in business [33], his constructs of individualism and uncertainty avoidance for social desirability response bias [34], as well as Kohlberg's [35] levels of moral development in explaining cross-cultural differences in business ethics [36]. Within this framework, Tan and Chou [37] tested competing hypotheses based on both cultural and national contexts by comparing groups of Chinese and American respondents together with a "bridging group" of Chinese-Americans. The results of their study showed that culture plays a far more important role in shaping value and ethical orientations than the national background.

Although several empirical comparisons have been completed of ethics of Americans versus non-American business people [38,39], and American versus non-American consumers [40], the most common studies have been of American and non-American business students in cross-national comparisons of business ethics. Indeed, in a comprehensive review of how and why cultural differences arise, Jackson [41] developed and tested a model of ethical decision-making in 10 countries. His results implied that American managers, considered as having individualistic traits and low uncertainty avoidance, put more emphasis on ethical issues that relate to external stakeholders than on issues regarding organizational concerns. On the individualism versus collectivism index, higher scores represent individualistic attitudes, which involve caring for oneself or one's immediate family, with less concern for the wellbeing of one's community. With a score near to 90, many Occidental countries are the most individualistic nations, while many Oriental nations display a collectivist orientation with a score of about 20 [42].

Along similar lines, Tsalikis et al. [43] examined ethical perceptions of two scenarios involving immoral acts in Greece and the U.S.A., finding that gender was not an important factor, while national characteristics had a significant effect. In Sigma-Mugan et al. [14], ethical perceptions of male and

female managers were compared in two countries, the U.S.A. and Turkey, that differ in power and in individualism/collectivism dimensions. They showed that ethical sensitivity varies depending upon whether the interests of the principals, agents, or third parties are affected by any given ethical dilemma, and that the nationality and gender of the decision-maker influences ethical sensitivity. Unlike the conclusions of most previous empirical cross-national surveys on business ethics, Peterson et al. [44], conducting studies in 36 different countries involving 6300 business students, suggested that the ethicality scores of American and non-American participants were not significantly different.

If we consider these contributions, nationality may be an important factor when analysing these controversial results. This is why nationality is the base of our first hypothesis when considering environmentally-friendly behaviour:

Hypothesis 1 (H1). *Nationality is a determinant of eco-behaviour.*

2.2. Personal Values and Eco-Behaviour

Shrum et al. [45] noted the features of environmentally friendly consumers that would differentiate them from each other. To better understand green consumers, it is necessary to investigate their characteristics, their personalities, their lifestyle, and their motivations.

Many authors have focused on the influence of individual differences and personal traits on ecological behaviour [4,15,46–53]. Many scholars have shown that socially or ecologically concerned consumers do possess certain psychographic traits, such as motivational factors and human values, that other consumers who rank low in this aspect do not share [16,19,54,55]. Therefore, predictors of environmental behaviour may be, for example, human values, views on sustainability, and concern about sustainability-relevant issues. Values are commonly defined as desirable trans-situational goals that serve as leading principles in life [56]. These values have been proven to be relatively stable and predictive of a broad spectrum of environmentally significant behaviours [57–59].

Unfortunately, the literature has not shown any consensus on ecologically friendly consumers or on the variables that could predict green behaviour [26,60]. Indeed, Roberts [61] even argues for a schizophrenic profile. To investigate the role of nationality in influencing eco-behaviour, we decided to include the main personal values identified as relevant in describing eco-behaviour. Among the various measurements used in the literature to evaluate personal traits [32,42,62,63], those used by Schwartz seemed the most suitable, and have been used to make international comparisons.

In particular, the values used include:

- Power, defined as social status and prestige, controls capabilities and domain toward other people, including social power, authority, wealth, and ability to preserve image.
- Achievement, understood as personal success by proving skills in line with social reference standards. One who possesses a high level of success is a person who can be called clever, ambitious, and influential.
- Hedonism, defined as pleasure and gratification, the ability to experience pleasure, to enjoy life, and to experience self-indulgence.
- Stimulation, defined as excitement, desire to discover the new, and to meet new challenges in life, including courage and the desire to have an exciting life of adventure.
- Self-direction, defined as the ability to be autonomous in the choice of action to be taken and as the ability to create and explore, which includes creativity, freedom, independence, curiosity, and the ability to choose for themselves the targets to be achieved.
- Universalism, defined as understanding, appreciation, tolerance, and the desire to protect the well-being of people in general and nature. A person who has high levels of universalism is a person with extensive views, wise, with a strong sense of justice and equity, animated by the desire to live in a world of peace, in harmony with nature, and in which the environment is respected.

- Benevolence, defined as defending and improving the welfare of people in general, and those who are closest to them. Help, honesty, forgiveness, loyalty, and responsibility are elements that distinguish a person characterized by a strong sense of humanity.
- Tradition, understood as respect and acceptance of the customs and ideas that culture or religion instil including humility, devotion, respect for tradition, balance, and ability to accept life as it comes.
- Conformism, which is the ability to curb instincts and impulses to avoid injury to others, to violate the norms of society, or to counter social expectations, characterized by courtesy, obedience, self-discipline, respect for parents and to older people in general.
- Security, understood as social harmony and stability, confidence and social relationships, involving safety in the home, in your country, in society, with mutual benevolence.

Based on these values and definitions, we defined the second hypothesis as follows:

Hypothesis 2 (H2)**.** *Personal values are determinants of eco-behaviour.*

We further subdivided this hypothesis for each individual value, as follows:

Hypothesis 2a (H2a)**.** *Power values have the largest negative impact on eco-behaviour.*

Hypothesis 2b (H2b)**.** *Achievement values have a negative impact on eco-behaviour.*

Hypothesis 2c (H2c)**.** *Hedonism values have a negative impact on eco-behaviour.*

Hypothesis 2d (H2d)**.** *Stimulation values have both a positive and negative impact on eco-behaviour.*

Hypothesis 2e (H2e)**.** *Self-direction values have a positive impact on eco-behaviour.*

Hypothesis 2f (H2f)**.** *Universalism values have the strongest positive influence on eco-behaviour.*

Hypothesis 2g (H2g)**.** *Benevolence values have a positive impact on eco-behaviour.*

Hypothesis 2h (H2h)**.** *Tradition values have a positive impact on eco-behaviour.*

Hypothesis 2i (H2i)**.** *Conformism values have both a positive and negative impact on eco-behaviour.*

Hypothesis 2j (H2j)**.** *Security values have a negative impact on eco-behaviour.*

2.3. Regulatory Focus and Eco-Behaviour

Although studies have investigated the role of personal characteristics in influencing the behaviour of sustainable consumption in countering the need to integrate with other variables, expression of the personality traits of individuals, such as regulatory focus, remain under-investigated. Considering social values that influence environmentally responsible consumption, some authors [52] have suggested that, as inter-dependence (self-construal) and prevention (regulatory focus) are usually associated with social-oriented values [64], these two constructs could be related to environmentally responsible consumption.

Regulatory focus is defined by Higgins [65] as the set of tools with which individuals self-regulate in pursuit of a goal. Regulatory focus influences how individuals make decisions and determine the ways in which they achieve their goals. This may be due to a particular individual situation or due to a constant individual attitude at the time of the choice [66].

In particular, Higgins [67] defines two fundamental approaches that people take in order to achieve their goals: the promotion approach and the prevention approach. In the former, individuals

tend to focus more on responsibilities, tasks, and duties, which they consider necessary to achieve their goals. These are perceived as tasks to be undertaken to make specific strategic decisions while avoiding mistakes and minimizing losses. In the context of purchasing decisions, prevention orientation leads to increased sensitivity to failure or loss of money, which is why individuals seek to fulfil commitments and obligations. However, in the case of a predominantly promotion approach, individuals' choices are guided by their long-term hopes, aspirations, and objectives. These individuals conceive their goals as being ideals, and their strategic choices, including purchasing, are dictated by the desire to maximize profits while minimizing losses. For this reason, their behaviour is oriented toward objectives, such as real progress, success, and growth.

Research in consumer ethics suggests an association between consumers' ethical beliefs and regulatory focus, derived from the definition of regulatory focus itself. In general, promotional goals have been argued to regulate behaviour through positive outcomes, either by maximizing their presence or by minimizing their absence. In contrast, prevention goals act either by minimizing negative outcomes, or maximizing their absence [68,69]. Thus, within a promotional focus, the desired aim is the presence of positive outcomes, while, in the case of a prevention focus, it is the absence of negative outcomes.

With regard to product-related attributes, individuals with a self-regulatory focus on promotion are motivated to pursue such positive outcomes such as "advancement" and "eagerness". This means that they will be more concerned with "getting the job done", will place particular emphasis on "strength" in their choices, and will respond positively to claims that the product is, for example, "powerful" or "effective". On the contrary, those whose focus is prevention, are motivated to pursue "safety" and "vigilance", are more likely to respond favourably to appeals emphasizing the "healthiness" or "gentleness" of the product, even if a cost is incurred in terms of reduced efficiency.

Several converging findings indicate that consumers associate ethics and sustainability with caring, compassion [70,71], gentleness, safety [72], and protectiveness. Because these traits satisfy prevention concerns for security, protection, and responsibility, these findings suggest there is an association between consumer ethics and regulatory focus, and more precisely, prevention focus. Considering this literature, we developed our third hypothesis, as follows: *regulatory focus is a determinant of eco-behaviour (H3).*

2.4. Time Orientation and Eco-Behaviour

Time orientation is the individual difference that considers the future consequences of a particular choice [73]. Time orientation is a multi-dimensional construct [74] consisting of one's capacity to anticipate, structure, and see the future more clearly [75]. Moreover, time orientation is the customer's willingness to delay or expedite gains, such as obtaining a reward or something of value, and losses, such as giving up something of value [76]. The role that personal time orientation assumes in influencing consumer environmentally friendly attitudes has been emphasized in many studies [77].

The Hofstede [32] definition of a long-term-oriented person is someone who preserves social traditions and adheres to family values, and considers reliability, responsiveness, and empathy to be extremely important. Recent research shows that long-term people tend to develop attitudes pertaining to the protection of the natural environment [78–80]. Indeed, since the long-term person preserves tradition and history, they are also likely to respect and preserve the environment in order to reap benefits for family and friends at a later stage, and maintain sustainable conditions for future generations to prosper [81]. In addition to the cultural dimensions of individualism and collectivism, time orientation scores have different values in Occidental and in Oriental countries. In China, the long-term orientation score is 118; in some Occidental countries, this score is closer to 20 points. Italy's score is 61 [42].

Temporal concerns have received increasing attention in more general pro-environmental literature. For example, several recent studies have demonstrated that individuals who scored high when considering future consequences (CFC), and explicit temporal concerns, are more likely to engage

in environmentally conscious consumer behaviour [82,83], more likely to engage in politics [84], and are more inclined to commute by public transportation [78].

The concept of time orientation can be related to the generativity concept [85] which is about the next generation, about bearing, raising, and caring for one's own and others' children. Generativity involves assuming the role of a responsible parent, a mentor, shepherd, guardian, guide, and so on, vis-à-vis those whose development and wellbeing benefit from the care that the role provides [86]. Recently the concept of environmental generativity has been proposed to explain the association between parental status and concern about environmental issues [87]. Because of the similarities between the two concepts of time orientation and generativity, we can assume that both constructs have a positive relationship with environmental issues.

Based on these findings, our fourth hypothesis is as follows:

Hypothesis 4 (H4). *Time orientation is a determinant of eco-behaviour.*

2.5. Eco-Constructs

To define our research hypothesis, we chose an ecological construct representing our dependent variable influenced by the ecological predictors explained above. We adopted a multi-item scale, called Ecoscale [88], used in the literature to measure environmental responsibility and consciousness. To obtain a more specific definition of ecological consumer behaviour, we used three different pieces of information obtained from the original 31 items of the Ecoscale. We created three related constructs: eco-awareness, eco-responsibility, and eco-behaviour, in the same way that the environmental sustainability consciousness (ESC construct) was developed by Diamantopoulos et al. [24], based on the sub-constructs of environmental knowledge, environmental attitude, and environmental behaviour.

2.5.1. Eco-Awareness

Environmental awareness is related to what the consumer knows about ecological problems [89]. The literature has considered customers' environmental awareness [10,24,90]. A correlation has been considered between environmental awareness and environmentally friendly behaviour [10,91,92]. However, empirical results do not always agree [93,94]. Some authors did not find any relevant links between environmental awareness and environmentally friendly behaviour [95]. Most marketers agree, however, that environmental awareness among consumers will eventually grow, and this change in consumers' perception will ultimately affect the market share and marketing activities of green products and companies [96].

2.5.2. Eco-Responsibility

Eco-responsibility is connected to environmental concern or active environmental attention, which includes environmental attitude [55] or social responsibility [97], and it is a complex hypothesis. From the public policy point of view, growing levels of individually perceived environmental responsibility may foster more environmentally friendly attitudes and behaviour, leading to more environmental activism [98]. The more citizens are aware of their own role in problems linked with environmental degradation, the more they are willing to participate in solutions [99].

Environmental or ecological responsibility is considered by many authors to be strictly linked to environmental knowledge and awareness and with conscious environmental intention [100]. Many authors have confirmed the hypothesis that the environmental concern of an individual has a direct and relevant impact on their eco-friendly behaviour [61,90,97]. On the other hand, studies have not agreed on the importance or the impact of environmental concerns on eco-friendly behaviour [23,61].
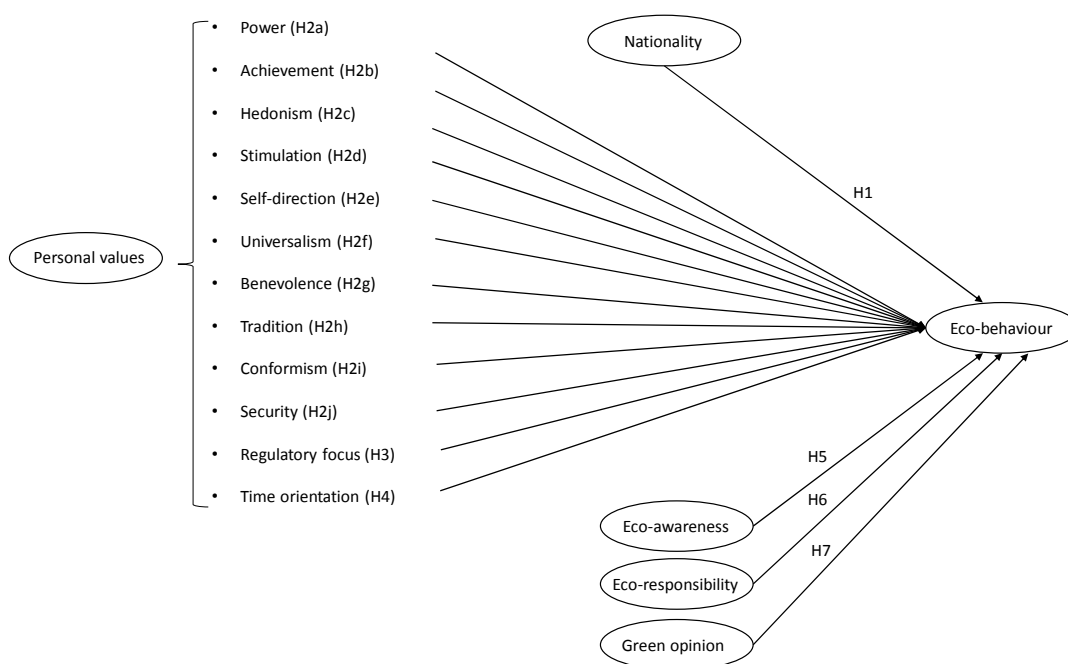
2.5.3. Eco-Behaviour

Most research has concentrated on the analysis of a particular ecological behaviour, including differentiated waste management [101,102], transportation choice [78,103,104], energy savings [105,106], water consumption [107], littering [108], environmental activism [109], or ecological product purchasing [21,110]. In particular, sustainable consumption is mostly related to the purchase of environment-friendly products and services [7,111–116]. The gap between intention and behaviour has also been widely studied [61,72,93,117,118], giving further evidence that the understanding of environmental problems does not always translate into pro-environmental behaviour.

In relation to these three constructs, our research aimed to test different levels of eco-awareness and eco-responsibility, affecting eco-behaviour. These three hypotheses would test the relationship between the three concepts that have been linked in the literature with conflicting results. Moreover, these results would also outline any differences in a country-specific context.

As a result, our last hypotheses are as follows: Eco-awareness positively affects eco-behaviour for people in both China and Italy (H5); and eco-responsibility positively affects eco-behaviour for people of both Chinese and Italian nationalities (H6).

Figure 1 shows the model, including all of the hypotheses we tested in our empirical analysis.

Figure 1. Diagram of the hypotheses tested linking different values to eco-behaviour.

3. Methods

Our empirical research involved 353 Chinese and 333 Italian people, for a total sample size of 686 people. Within this sample, 61.9% were women, while 33.7% were men; the average age was 28.6 years (SD 13.6314). While the Italian sample is quite representative of the Italian population, the Chinese sample is somewhat biased. In the Italian sample, 53.8% were women, while in the Chinese sample the percentage of women was 75.9%, which is not representative of the population. In addition, age distribution reveals some biases. For the Italian group, the average age was 37.1 (SD 15.0887), while for the Chinese sample the average age was 20.18 (SD 0.9730). Data collection in the two countries started in December 2014 and finished in April 2015. The same English version of the questionnaire was submitted directly to Italian and to Chinese respondents. In both countries, some of the respondents were recruited from within a group of university students as part of a course credit. Other participants were directly recruited by the students. A detailed analysis was conducted on the sample in order to

determine the main differences between the Italian and in the Chinese groups. The answers to the items used in the survey were analysed in detail and the main differences emerging in the two samples were determined.

We decided to focus our analysis on these two countries due to the cultural differences emerging in these countries, especially for those dimensions we supposed as influencing eco-behaviour. As mentioned before, the two countries mainly differ in term of time orientation scores. Even though there are no studies proving differences between the two countries in terms of regulatory focus orientation, our preliminary analysis on the results of our research (Table S1) showed differences in the prevention scores, being higher for Italian respondents and lower for Chinese respondents.

The questionnaire was composed of 69 questions investigating general pro-environmental beliefs and behaviours using the items included in the Ecoscale [88], and the personal traits included in the Portrait Values Questionnaire (PVQ) [56]. Each of the 10 personal traits included in the PVQ was measured by a different number of items, with an increasing trend, for example, high scores in benevolence were considered as revealing a high level of benevolence in individuals. Reliability scores for PVQ have been established in the existing literature [56]. Other personal traits we considered may have influenced ecological beliefs, specifically regulatory focus and time orientation.

To test regulatory focus, we used the scale used in Higgins et al. [119], which is composed of 11 items, of which 6 measure the promotion state and 5 measure the prevention state. The scale exhibits good internal reliability: an α of 0.73 for the promotion scale and an α of 0.80 for the prevention scale. For the items measuring the promotion state, high scores correspond to a high level of promotion, while for the items measuring the prevention state, high scores correspond to high level of prevention.

Time orientation was measured using the Gjesme scale [75], which is composed of 7 items, and exhibits an alpha coefficient of 0.62. The items measure future time orientation, where high scores in time orientation correspond to future time orientation, and low scores correspond to present time orientation.

In the final part of the questionnaire, we collected socio-demographic information, including sex, age, and nationality.

The linear regression model aimed at testing the impact of nationality and personal values on eco-behaviour. Before starting with this data while considering the items in the Ecoscale, we created new cross-constructs by combining the same items in a different way. Their latent existence was confirmed by the coherent trend assumed by the items defining them.

The general trend assumed by these new constructs showed significant differences in the two samples, giving some insights concerning the role assumed by nationality in influencing eco-behaviour. Moreover, the new eco-constructs gave us the opportunity to focus on the main issues considered relevant for our analysis, including eco-responsibility, eco-attitudes, and eco-behaviour. This allowed us to reduce the eco-scale, which included seven constructs in the original version: opinions and beliefs, awareness, will to act, attitude, actions, ability to act, and knowledge.

Thus, based on these considerations, the new eco-constructs used were as follows:

1. Eco-responsibility: This construct explains the personal sense of responsibility that an individual has toward the environment. The concept we intended to isolate and evaluate expresses how an individual can be considered as being personally responsible for environmental issues, beyond the general declaration of eco-sensitivity. Eco-responsibility, as defined above, is supposed to impact eco-behaviour and therefore we decided to include it in our analysis.

2. Eco-awareness: In this eco-construct, we included all items expressing objective statements that did not require personal opinions, but which were considered to be a good proxy of the level of awareness about environmental issues.

3. Eco-behaviour: This eco-construct is wider than the "actions" construct picked from the Ecoscale to include items picked from "will to act" and "ability to act" constructs in the Ecoscale. We therefore included all statements showing personal and direct action in favour of environment protection.

4. Green-opinion: This eco-construct was created as an average of the ratings assigned to the items on the Ecoscale that were not included in the other eco-constructs. These can be considered as general opinions on green issues.

A list of the items included in each new eco-construct is reported in Table S2. The new constructs were tested and most of the resulting scales exhibited decent internal reliability. The α for eco-responsibility was 0.707, 0.620 for eco-behaviour, and 0.546 for green opinion. Only the reliability of eco-awareness was low, with an α of 0.403.

4. Results

To measure the three constructs, we created three variables called eco-responsibility, eco-awareness, and eco-behaviour, using a 1–5 point scale. People involved in the analysis had a high level of eco-awareness about environmental issues (M = 3.5837; SD = 0.52248). They responded that they had a high sense of responsibility toward the environment (M = 3.9156; SD = 0.68101), but they were not as active in environmental protection (M = 2.8455; SD = 0.56603).

The analysis of the impact of nationality on these three eco-constructs did not show any significant differences within the sample regarding eco-responsibility (M_Chinese = 3.9120; SD = 0.77074; M_Italian = 3.9194; SD = 0.57656). However, Italians were significantly more eco-aware (M_Italian = 3.7928; SD = 0.41073) compared to the Chinese (M_Chinese = 3.3714; SD = 0.53512). Looking at the trend assumed by the eco-behaviour construct, the data revealed a significant difference between Italians (M = 2.7798; SD = 0.57137) and Chinese people (M = 2.9135; SD = 0.55235). In particular, Chinese people were significantly more active in eco-behaviour. As for regulatory focus and time orientation variables, *T*-tests for equality of means of eco-variables are reported in Table S1.

Because the aim of the paper was to investigate the variables influencing eco-behaviour, while paying particular attention to the role assumed by nationality, in this second part of the analysis, we report the results of a linear regression model. In this regression model, eco-behaviour is the dependent variable, while variables related to personal values (benevolence, universalism, self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, future time orientation, and regulatory focus), demographic features (age, sex, and nationality) and other eco-constructs are included in the model as explanatory variables.

In particular, the eco-constructs included in the model as explanatory variables were eco-responsibility, eco-awareness, and green opinion.

The first regression model we tested, including age, nationality, sex, eco-responsibility, eco-awareness, and green opinion as explanatory variables, had a very poor performance (Adjusted R Squared = 0.030).

Including the personal values as predictors (Table 1), which included benevolence, universalism, self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, future time orientation, and regulatory focus, the performance of the model increased (Adjusted R Square = 0.056).

The coefficients reported in Table 1 show how a limited number of variables significantly influenced eco-behaviour with different levels of significance: eco-responsibility positively influenced eco-behaviour (B = 0.092), while an increase in eco-awareness decreased eco-behaviour (B = −0.157). This might be due to the high correlation between eco-responsibility and eco-awareness (Pearson correlation index = 0.481). The regulatory focus seems to be, in all models, a good predictor of eco-behaviour (B = 0.188).

Another interesting effect emerging from the coefficient analysis was the effect of nationality. As shown in Table 1, Italian nationality negatively affected eco-behaviour (B = −0.67) but the effect was not significant. We cannot therefore state that this supports our first hypothesis that nationality affects eco-behaviour, even though the exploratory analysis seemed to support the idea that being Italian, rather than Chinese, decreased the likelihood of adopting eco-behaviour, while being Chinese rather than Italian increased the chances of adopting eco-behaviour.

As a result, the model confirmed hypotheses 3, 5, and 6, and consequently, the performance of the model was rather low. This might be due to the complexity of the eco-behaviour construct, which may depend on a higher number of variables than those considered in this model, and to difficulties relating to their measurement. To identify the main variables affecting the eco-behaviour construct and therefore give direction for future research, a stepwise procedure was used to reduce the number of explanatory variables.

Table 1. Coefficients with eco-behaviour mean as the dependent variable.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.720	0.326		5.277	0.000
Age	−0.003	0.002	−0.084	−1.462	0.144
Nationality	−0.067	0.073	−0.059	−0.918	0.359
Male	0.083	0.053	0.069	1.562	0.119
Eco-responsibility	0.092	0.050	0.108	1.857	0.064
Eco-awareness	−0.157	0.061	−0.141	−2.553	0.011
Green opinion	0.007	0.055	0.007	0.127	0.899
Benevolence	0.050	0.039	0.070	1.305	0.192
Universalism	0.072	0.044	0.093	1.646	0.100
Self-direction	−0.012	0.039	−0.016	−0.309	0.757
Stimulation	0.030	0.032	0.054	0.953	0.341
Hedonism	−0.010	0.034	−0.017	−0.299	0.765
Achievement	0.028	0.032	0.046	0.883	0.378
Power	−0.002	0.030	−0.004	−0.072	0.943
Security	−0.012	0.037	−0.017	−0.335	0.738
Conformism	−0.022	0.033	−0.033	−0.659	0.510
Tradition	0.037	0.029	0.059	1.278	0.202
Future time orientation	0.058	0.043	0.070	1.364	0.173
Regulatory focus	0.188	0.074	0.124	2.533	0.012

The stepwise analysis allows identification of the best model among all the available regression models derived from the different combinations of the predictors. As a result, the stepwise analysis resulted in a minimal model showing the main effects of the dependent variable used in the regression model. As shown in Table 2 which summarizes the model, the selected model is the best compared to the others shown in the table, even though characterized by a low of R Square value.

Table 2. Model summary of the stepwise analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimates
1	0.191 [a]	0.036	0.035	0.56238
2	0.208 [b]	0.043	0.040	0.56084
3	0.236 [c]	0.056	0.051	0.55768

[a] Predictors: (Constant), universalism_mean; [b] Predictors: (Constant), universalism_mean, regulatory focus_mean; [c] Predictors: (Constant), universalism_mean, regulatory focus_mean, nationality.

As shown by the coefficients in Table 2, universalism (B = 0.123), regulatory focus (B = 0.196), and nationality (B = −0.140) seem to be the main predictors of eco-behaviour (Table 3). In addition to the regression model, this analysis confirms the effect of regulatory focus as a more important predictor of eco-behaviour than nationality.

Table 3. Coefficients of the stepwise analysis with eco-behaviour mean as the dependent variable.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.761	0.234		7.511	0.000
Universalism	0.123	0.033	0.157	3.770	0.000
Regulatory Focus	0.196	0.067	0.130	2.945	0.003
Nationality	−0.140	0.051	−0.122	−2.745	0.006

5. Discussion and Conclusions

This paper contributes to the debate concerning the main determinants of eco-behaviour based on an inter-country analysis. Our aim was to identify the main variables affecting eco-behaviour considered relevant in the literature. Particularly, thanks to a cross-country analysis involving Chinese and Italian subjects, we investigated the role of nationality as a socio-demographic factor, compared to the role of different personal values, including the Schwartz's values with the addition of regulatory focus and time orientation as explanatory variables. In addition, eco-responsibility, eco-awareness, and green opinion were included in the model as variables affecting the eco-behaviour dependent variable.

Firstly, the general trend of the new constructs identified in the regression model, eco-responsibility, eco-awareness, and eco-behaviour, were significantly different in the two samples. Confirming hypothesis 1 and according to the stepwise model, nationality is important in describing eco-behaviour. Furthermore, this effect is stronger than the effect of certain personal values identified as being relevant in the literature. Regarding the role assumed by the Schwartz personal values, our study mostly confirmed the main effects of previous contributions. Our analysis confirmed universalism values as having the highest positive effect on eco-behaviour compared to other personal values.

Nevertheless, some interesting results emerged regarding the other variables included in the model, such as the significant effect of regulatory focus as a personal value influencing eco-behaviour. Looking at the effects of the other eco-constructs, our study mostly supports the defined hypothesis regarding the positive effect of eco-responsibility. However, our analysis shows the negative effect of eco-awareness on eco-behaviour in contrast to the positive effect suggested in the literature.

The results of our research give an interesting contribution to the literature investigating the role of culture in influencing eco-behaviour. With the debate about the role assumed by cultural differences, using nationality as the level of analysis, compared to the role of personal values in influencing eco-behaviour, our paper has controversial results. The first analysis we conducted on the two samples of Chinese and Italian people shows significant differences in terms of eco-awareness and eco-behaviour. On the other hand, the regression analysis shows the significant role of universalism and regulatory focus in predicting eco-behaviour, supporting the hypothesis that personal values have a significant influence on eco-behaviour while nationality does not.

In addition to the theoretical contribution, our study has some interesting managerial implications. Investigating the influence of nationality, as a personal value, on eco-behaviour is particularly interesting for multinationals.

The main results of our research could suggest some guidelines for consumer segmentation. For eco-behaviour, our analysis shows relevant differences in the two countries, recommending country-by-country segmentation as more suitable than transnational segmentation. This means that, when planning marketing strategies for a green product or service in a global context, companies need to differentiate their marketing. Our analysis shows significant differences in terms of eco-behaviour and eco-awareness for the two countries involved that might lead companies to adopt different marketing strategies especially when promoting eco-products.

While Italians were more eco-aware, this did not translate into concrete eco-behaviour. The situation was the opposite for the Chinese sample, who, even with a lower level of eco-awareness,

seemed to be more active in terms of eco-behaviour. This would suggest recommending the use of different marketing strategies in these two countries, trying to push Italian people to adopt eco-behaviour, while acting on information available for the Chinese. Based on these results, actions increasing the level of eco-awareness, rather than influencing eco-responsibility to induce eco-behaviour could be an interesting challenge.

Additionally, the results regarding the effect of personal values on eco-behaviour could supply multinational companies with some interesting suggestions on how to define communication strategies encouraging eco-behaviour. Our results show the significant effect of universalism and regulatory focus that needs to be explored in future studies for some practical suggestions on how to define the ecological communication message addressing these personal aspects. If additional analysis confirming these effects, it would be recommended to plan communication messages based on the universalism value in order to stimulate eco-behaviour in a global context. Regarding the effect of regulatory focus, additional analysis is necessary to understand if promotion rather than prevention orientation affect eco-behaviour. After defining this aspect, managers developing communication strategies inducing eco-behaviour would have some guidelines about which kind of message could be effective. The distinction is crucial, considering that the analysis conducted on our sample show that Italian and Chinese are different in terms of regulatory focus orientation. Particularly, the data revealed that Italian respondents have higher scores in prevention than Chinese respondents.

Due to the early stage of this research, our empirical analysis has some limits. For the sample, the analysis of the socio-demographic features of the respondents shows that the sample was not representative of the citizens of both countries, especially for China. However, considering that we are in the explorative step of the research, we think that this limitation could be overcome in the future by sampling other respondents. More precisely, further analysis will be conducted including older respondents and more men in the Chinese sample. Secondly, if the analysis is to contribute to the management of multi-national companies, the analysis should be applied in at least one other country. The United States might be the best benchmark, based on previous studies. Thirdly, because of the interesting results regarding the effect of regulatory focus as the most influential eco-behaviour, this aspect could be supported by other analyses.

Moreover, the empirical analysis, in looking for a correlation between a number of personal values, nationality, eco-awareness, eco-responsibility, and green opinion on eco-behaviour, shows some mixed results. In the first analysis, eco-responsibility, eco-awareness, and regulatory focus were significant, whereas nationality was not. In the second analysis, where eco-responsibility and eco-awareness were excluded, nationality was significant. In addition, nationality showed correlation with regulatory focus and time orientation. These results could call for a more sophisticated model where, for example, personal values and eco-variables influence nationality, and nationality, in turn, influences eco-behaviour. However, before testing a more sophisticated model, the limitation regarding the representativeness of the sample should be addressed. Including older respondents and more men in the Chinese sample, and retesting the regression model we used in this paper, could lead to more significant effects among the tested variables. After this step and according to the results of this analysis, we could design a new and more sophisticated model.

Regarding future lines of research, the conceptual model could be further investigated, using different statistical methodologies in order to comprehend how the suggested relationship between the variables influences the ecological behaviours.

After that, the low Cronbach alpha, assumed by some of the eco-constructs used in the analysis, recommends the use of other scales in order to measure eco-awareness and eco-behaviour. Considering few studies have focused on the development of a measure of eco-behaviour including eco-consumer behaviour, as the decision of effectively buying eco-products, a new scale for measuring eco-behaviour could be developed for our future studies.

References

1. Shaw, D.S.; Clarke, I. Culture, consumption and choice: Towards a conceptual relationship. *J. Consum. Stud. Home Econ.* **1998**, *22*, 163–168. [CrossRef]
2. Shrum, L.J.; Lowrey, T.M.; McCarty, J.A. Recycling as a marketing problem: A framework for strategy development. *Psychol. Mark.* **1994**, *11*, 393–416. [CrossRef]
3. Tanner, C.; Kast, S.W. Promoting sustainable consumption: Determinants of green purchases by Swiss Consumers. *Psychol. Mark.* **2003**, *20*, 883–902. [CrossRef]
4. Griskevicius, V.; Tybur, J.M.; Van den Bergh, B. Going green to be seen: Status, reputation, and conspicuous conservation. *J. Personal. Soc. Psychol.* **2010**, *98*, 392–404. [CrossRef] [PubMed]
5. Koller, M.; Floh, A.; Zauner, A. Further insights into perceived value and consumer loyalty: A green perspective. *Psychol. Mark.* **2011**, *28*, 1154–1176. [CrossRef]
6. Pickett-Baker, J.; Ozaki, R. Pro-environmental products: Marketing influence on consumer purchase decision. *J. Consum. Mark.* **2008**, *25*, 281–293. [CrossRef]
7. Paço, A.; Alves, H.; Shiel, C. Development of a green consumer behaviour model. *Int. J. Consum. Stud.* **2013**, *37*, 414–421. [CrossRef]
8. Abeliotis, K.; Koniari, C.; Sardianou, E. The profile of the green consumer in Greece. *Int. J. Consum. Stud.* **2010**, *34*, 153–160. [CrossRef]
9. D'Souza, C.; Taghian, M.; Lamb, P.; Peretiatko, R. Green decisions: Demographics and consumer understanding of environmental labels. *Int. J. Consum. Stud.* **2007**, *31*, 371–376. [CrossRef]
10. Finisterra Do Paço, A.M.; Raposo, M.L.B. Green consumer market segmentation: Empirical findings from Portugal. *Int. J. Consum. Stud.* **2010**, *34*, 429–436. [CrossRef]
11. Bonnes, M.; Passafaro, P.; Carrus, G. *Psicologia Ambientale, Sostenibilità e Comportamenti Ecologici*; Carocci: Rome, Italy, 2006.
12. Gatersleben, B.; Steg, L.; Vlek, C. Measurement and determinants of environmentally significant consumer behavior. *Environ. Behav.* **2002**, *34*, 335–362. [CrossRef]
13. Ukenna, S.; Nkamnebe, A.D.; Nwaizgbo, I.C.; Moguluwa, S.C.; Olise, M.C. Profiling the environmental sustainability-conscious (ESC) consumer: Proposing the S-P-P model. *J. Manag. Sustain.* **2012**, *2*, 197–210. [CrossRef]
14. Simga-Mugan, C.; Daly, B.A.; Onkal, D.; Kavut, L. The Influence of Nationality and Gender on Ethical Sensitivity: An Application of the Issue Contingent Model. *J. Bus. Ethics* **2005**, *57*, 139–159. [CrossRef]
15. Doran, C.J. The role of personal values in fair trade consumption. *J. Bus. Ethics* **2009**, *84*, 549–563. [CrossRef]
16. Anderson, W.T., Jr.; Cunningham, W.H. The Socially Conscious Consumer. *J. Mark.* **1972**, *36*, 23–31. [CrossRef]
17. Anderson, T.W.; Henion, K.E.; Cox, E.P. Socially vs. Ecologically Responsible Consumers. In *1974 Combined Proceedings*; Curhan, R.C., Ed.; American Marketing Association: Chicago, IL, USA, 1974; pp. 304–311.
18. Van Liere, K.D.; Dunlap, R.E. The Social Bases of Environmental Concern: A Review of Hypotheses, Explanations and Empirical Evidence. *Public Opin. Q.* **1980**, *44*, 181–197. [CrossRef]
19. Balderjahn, I. Personality Variables and Environmental Attitudes as Predictors of Ecologically Responsible Consumption Patterns. *J. Bus. Res.* **1988**, *17*, 51–56. [CrossRef]
20. Roper Organization, & Johnson Wax. *The Environment: Public Attitudes and Individual Behaviour*; The Roper Organization, Inc.: New York, NY, USA, 1990.
21. Mohr, M.; Schlich, M. Socio-demographic basic factors of German customers as predictors for sustainable consumerism regarding foodstuffs and meat products. *Int. J. Consum. Stud.* **2016**, *40*, 158–167. [CrossRef]

22. Webster, F.E., Jr. Determining the Characteristics of the Socially Conscious Consumer. *J. Consum. Res.* **1975**, *2*, 188–196. [CrossRef]

23. Straughan, R.D.; Roberts, J.A. Environmental segmentation alternatives: A look at green consumer behaviour in the new millennium. *J. Consum. Mark. [Online]* **1999**, *16*, 558–575. [CrossRef]

24. Diamantopoulos, A.; Schlegelmilch, B.B.; Sinkovics, R.R.; Bohlen, G.M. Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *J. Bus. Res.* **2003**, *56*, 465–480. [CrossRef]

25. Jain, S.K.; Kaur, G. Role of socio-demographics in segmenting and profiling green consumers: An exploratory study of consumers in India. *J. Int. Consum. Mark.* **2006**, *18*, 107–146. [CrossRef]

26. Banytė, J.; Brazionienė, L. Agnė Gadeikienė investigation of green consumer profile: A case of lithuanian market of eco-friendly food products. *Econ. Manag.* **2010**, *15*, 374–383.

27. Albayrak, T.; Caber, M.; Aksoy, S. Clustering consumers according to their environmental concerns and skepticisms. *Int. J. Trade Econom. Financ.* **2010**, *1*, 84. [CrossRef]

28. Sandahl, D.M.; Robertson, R. Social determinants of environmental concern: Specification and test of the model. *Environ. Behav.* **1989**, *21*, 57–81. [CrossRef]

29. Srnka, K.J. Culture's role in marketers' ethical decision making: An integrated theoretical framework. *Acad. Mark. Sci. Rev.* **2004**, *1*, 1–32.

30. Swaidan, Z.; Rawwas, M.Y.; Vitell, S.J. Culture and moral ideologies of African Americans. *J. Mark. Theory Pract.* **2008**, *16*, 127–137. [CrossRef]

31. Buller, P.F.; Kohls, J.J.; Anderson, K.S. The challenge of global Ethics. *J. Bus. Ethics* **1991**, *10*, 767–775. [CrossRef]

32. Hofstede, G. *Culture's Consequences: International Differences in Work-Related Values*; Sage: Beverly Hills, CA, USA, 1980.

33. Husted, B.W.; Allen, D.B. Toward a model of cross-cultural business ethics: The impact of individualism and collectivism on the ethical decision-making process. *J. Bus. Ethics* **2008**, *82*, 293–305. [CrossRef]

34. Bernardi, R. Associations between Hofstedes' Cultural Constructs and Social Desirability Response Bias. *J. Bus. Ethics* **2006**, *65*, 43–53. [CrossRef]

35. Kohlberg, L. *Essays on Moral Development: The Psychology of Moral Development*; Harper & Row New\brk: New York, NY, USA, 1984; Volume 2.

36. Kini, R.B.; Ramakrishna, H.V.; Vijayaraman, B.S. Shaping of Moral Intensity Regarding Software Piracy: A Comparison between Thailand and U.S. Students. *J. Bus. Ethics* **2004**, *49*, 91–104. [CrossRef]

37. Tan, J.; Chow, I.H.S. Isolating cultural and national influence on value and ethics: A test of competing hypotheses. *J. Bus. Ethics* **2009**, *88*, 197–210. [CrossRef]

38. Beekun, R.I.; Hamdy, R.; Westerman, J.W.; HassabElnaby, H.R. An exploration of ethical decision-making processes in the United States and Egypt. *J. Bus. Ethics* **2008**, *82*, 587–605. [CrossRef]

39. Singhapakdi, A.; Karande, K.; Rao, C.P.; Vitell, S.J. How important are ethics and social responsibility?—A multinational study of marketing professionals. *Eur. J. Mark.* **2001**, *35*, 133–153. [CrossRef]

40. Vitell, S.J. Consumer ethics research: Review, synthesis and suggestions for the future. *J. Bus. Ethics* **2003**, *43*, 33–47. [CrossRef]

41. Jackson, T. Cultural values and management ethics: A 10-nation study. *Hum. Relat.* **2001**, *54*, 1267–1302. [CrossRef]

42. Hofstede, G. *Cultures and Organizations—Software of the Mind*; McGraw Hill: New York, NY, USA, 1991.

43. Tsalikis, J.; Seaton, B.; Tomaras, P. A new perspective on cross-cultural ethical evaluations: The use of conjoint analysis. *J. Bus. Ethics* **2002**, *35*, 281–292. [CrossRef]

44. Peterson, R.A.; Albaum, G.; Merunka, D.; Munera, J.L.; Smith, S.M. Effects of nationality, gender and religiosity on business-related ethicality. *J. Bus. Ethics* **2010**, *96*, 573–587. [CrossRef]

45. Shrum, L.J.; McCarty, J.A.; Lowerey, T.M. Buyer Characteristics of the Green Consumer and Their Implications for Advertising Strategy. *J. Adv.* **1995**, *24*, 71–90. [CrossRef]

46. Schwartz, S.H. Normative influences on altruism. In *Advances in Experimental Social Psychology*; Berkowitz, L., Ed.; Academic Press: San Diego, CA, USA, 1977; Volume 10, pp. 221–279.

47. Hines, J.M.; Hungerford, H.R.; Tomera, A.N. Analysis and synthesis of research on responsible environmental behaviour: A meta-analysis. *J. Environ. Educ.* **1987**, *18*, 1–8. [CrossRef]

48. Bamberg, S.; Möser, G. Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behavior. *J. Environ. Psychol.* **2007**, *27*, 14–25. [CrossRef]

49. Bray, J.; Johns, N.; Kilburn, D. An Exploratory Study into the Factors Impeding Ethical Consumption. *J. Bus. Ethics* **2011**, *98*, 597–608. [CrossRef]

50. Carrington, M.J.; Neville, B.A.; Whitwell, G.J. Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers. *J. Bus. Ethics* **2010**, *97*, 139–158. [CrossRef]

51. Carrington, M.J.; Neville, B.A.; Whitwell, G.J. Lost in translation: Exploring the ethical consumer intention-behaviour gap. *J. Bus. Ethics* **2014**, *67*, 2759–2767. [CrossRef]

52. Pinto, D.C.; Nique, W.M.; Añaña, E.D.S.; Herter, M.M. Green consumer values: How do personal values influence environmentally responsible water consumption? *Int. J. Consum. Stud.* **2011**, *35*, 122–131. [CrossRef]

53. Miniero, G.; Codini, A.; Bonera, M.; Corvi, E.; Bertoli, G. Being green: From attitude to actual consumption. *Int. J. Consum. Stud.* **2014**, *38*, 521–528. [CrossRef]

54. Kinnear, T.C.; Taylor, J.R.; Ahmed, S.A. Ecologically Concerned Consumers: Who Are They? *J. Mark.* **1974**, *38*, 20–24. [CrossRef]

55. Crosby, L.A.; Gill, J.D.; Taylor, J.R. Consumer/voter behaviour in the passage of the Michigan container law. *J. Mark.* **1981**, *45*, 19–32. [CrossRef]

56. Schwartz, S.H.; Melech, G.; Lehmann, A.; Burgess, S.; Harris, M.; Owens, V. Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *J. Cross-Cult. Psychol.* **2001**, *32*, 519–542. [CrossRef]

57. Stern, P.C. New environmental theories: Toward a coherent theory of environmentally significant behavior. *J. Soc. Issues* **2000**, *56*, 407–424. [CrossRef]

58. Steg, L.; Bolderdijk, J.W.; Keizer, K.; Perlaviciute, G. An integrated framework for encouraging pro-environmental behaviour: The role of values, situational factors and goals. *J. Environ. Psychol.* **2014**, *38*, 104–115. [CrossRef]

59. 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] [PubMed]

60. D'Souza, C.; Taghian, M.; Lamb, P. An empirical study on the influence of environmental labels on consumers. *Corp. Commun. Int. J.* **2006**, *11*, 162–173. [CrossRef]

61. Roberts, J.A. Green consumers in the 1990s: Profile and implications for advertising. *J. Bus. Res.* **1996**, *36*, 217–231. [CrossRef]

62. Rokeach, M. Authoritarianism scales and response bias: Comment on Peabody's paper. *Psychol. Bull.* **1967**, *67*, 349–355. [CrossRef] [PubMed]

63. Rokeach, M. *The Nature of Human Values*; Free press: New York, NY, USA, 1973; Volume 438.

64. Homer, P.M.; Kahle, L.R. A structural equation test of the value-attitude-behaviour hierarchy. *J. Personal. Soc. Psychol.* **1988**, *54*, 638–646. [CrossRef]

65. Higgins, E.T. Beyond pleasure and pain. *Am. Psychol.* **1997**, *52*, 1280–1300. [CrossRef] [PubMed]

66. Higgins, E.T.; Roney, C.J.; Crowe, E.; Hymes, C. Ideal versus ought predilections for approach and avoidance distinct self-regulatory systems. *J. Personal. Soc. Psychol.* **1994**, *66*, 276–286. [CrossRef]

67. Higgins, E.T. Self-discrepancy: A theory relating self and affect. *Psychol. Rev.* **1987**, *94*, 319–340. [CrossRef] [PubMed]

68. Freitas, A.L.; Higgins, E.T. Enjoying goal-directed action: The role of regulatory fit. *Psychol. Sci.* **2002**, *13*, 1–6. [CrossRef] [PubMed]

69. Idson, L.C.; Liberman, N.; Higgins, E.T. Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *J. Exp. Soc. Psychol.* **2000**, *36*, 252–274. [CrossRef]

70. Luthans, F.; Youssef, C.M.; Avolio, B.J. *Psychological Capital: Developing the Human Competitive Edge*; Oxford University Press: Oxford, UK, 2007; p. 3.

71. Sisodia, R.; Wolfe, D.; Sheth, J. *Firms of Endearment: How World-Class Companies Profit from Passion and Purpose*; Wharton School Publishing: Philadelphia, PA, USA, 2007.

72. Luchs, M.G.; Naylor, R.W.; Irwin, J.R.; Raghunathan, R. The sustainability liability: Potential negative effects of ethicality on product preference. *J. Mark.* **2010**, *74*, 18–31. [CrossRef]

73. Kees, J. Advertising framing effects and consideration of future consequences. *J. Consum. Aff.* **2011**, *45*, 7–32. [CrossRef]

74.　Klineberg, S.L. Future time perspective and the preference for delayed reward. *J. Personal. Soc. Psychol.* **1968**, *8*, 253–257. [CrossRef]

75.　Gjesme, T. On the concept of future time orientation: Considerations of some functions' and measurements' implications. *Int. J. Psychol.* **1983**, *18*, 443–461. [CrossRef]

76.　Wright, P.; Weitz, B. Time horizon effects on product evaluation strategies. *J. Mark. Res.* **1977**, *14*, 429–443. [CrossRef]

77.　Codini, A.; Bonera, M.; Miniero, G. Time horizon and green consumption. *Merc. Comp.* **2016**, *2*, 49–62.

78.　Joireman, J.; Van Lange, P.A.M.; Van Vugt, M. Who cares about the environmental impact of cars? Those with an eye toward the future. *Environ. Behav.* **2004**, *36*, 187–206. [CrossRef]

79.　Sarigöllü, E. A cross-country exploration of environmental attitudes. *Environ. Behav.* **2009**, *41*, 365–386. [CrossRef]

80.　Leonidou, L.C.; Leonidou, C.N.; Kvasova, O. Antecedents and outcomes of consumer environmentally friendly attitudes and behavior. *J. Mark. Manag.* **2010**, *26*, 1319–1344. [CrossRef]

81.　Furrer, O.; Liu, B.S.C.; Sudharshan, D. The relationships between culture and service quality perceptions basis for cross-cultural market segmentation and resource allocation. *J. Serv. Res.* **2000**, *2*, 355–371. [CrossRef]

82.　Lindsay, J.J.; Strathman, A. Predictors of recycling behaviour: An application of a modified health belief model. *J. Appl. Soc. Psychol.* **1997**, *27*, 1799–1823. [CrossRef]

83.　Strathman, A.; Gleicher, F.; Boninger, D.S.; Edwards, C.S. The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *J. Personal. Soc. Psychol.* **1994**, *66*, 742–752. [CrossRef]

84.　Joireman, J.A.; Lasane, T.P.; Bennett, J.; Richards, D.; Solaimani, S. Integrating social value orientation and the consideration of future consequences within the extended norm activation model of proenvironmental behavior. *Br. J. Soc. Psychol.* **2001**, *40*, 133–155. [CrossRef] [PubMed]

85.　Erikson, E.H. *Childhood and Society*; WW Norton & Company: London, UK, 1993.

86.　Keyes, C.L.M.; Ryff, C.D. Generativity in adult lives: Social structural contours and quality of life consequences. In *Generativity and Adult Development: How and Why We Care for the Next Generation*; McAdams, D.P., de St. Aubin, E., Eds.; American Psychological Association: Washington, DC, USA, 1998; pp. 227–263.

87.　Milfont, T.L.; Sibley, C.G. Exploring the concept of environmental generativity. *Int. J. Hisp. Psychol.* **2011**, *4*, 21–30.

88.　Stone, G.; Barnes, J.H.; Montgomery, C. Ecoscale: A scale for the measurement of environmentally responsible consumers. *Psychol. Mark.* **1995**, *12*, 595–612. [CrossRef]

89.　Chan, R.Y. Environmental attitudes and behaviour of consumers in China: Survey findings and implications. *J. Int. Consum. Mark.* **1999**, *11*, 25–52. [CrossRef]

90.　Roberts, J.A.; Bacon, D.R. Exploring the Subtle Relationships between Environmental Concern and Ecologically Conscious Consumer Behaviour. *J. Bus. Res.* **1997**, *40*, 79–89. [CrossRef]

91.　Synodinos, N.E. Environmental attitudes and knowledge: A comparison of marketing and business students with other groups. *J. Bus. Res.* **1990**, *20*, 161–170. [CrossRef]

92.　Vining, J.; Ebreo, A. What makes a recycler? A comparison of recyclers and nonrecyclers. *Environ. Behav.* **1990**, *22*, 55–73. [CrossRef]

93.　Chan, R.Y. Determinants of Chinese consumers' green purchase behavior. *Psychol. Mark.* **2001**, *18*, 389–413. [CrossRef]

94.　Martin, B.; Simintiras, A.C. The impact of green product lines on the environment: Does what they know affect how they feel? *Market. Intell. Plan.* **1995**, *13*, 16–23. [CrossRef]

95.　Geller, E.S. Evaluating energy conservation programs: Is verbal report enough? *J. Consum. Res.* **1981**, *8*, 331–335. [CrossRef]

96.　Fitzsimmons, C. Make it Green and Keep them Keen. The Guardian. 21 January 2008. Available online: http://www.guardian.co.uk/media/2008/jan/21/marketingandpr (accessed on 1 June 2016).

97.　Liere, K.D.V.; Dunlap, R.E. The social bases of environmental concern: A review of hypotheses, explanations and empirical evidence. *Publ. Opin. Quart.* **1980**, *44*, 181–197. [CrossRef]

98.　Paço, A.; Gouveia Rodrigues, R. Environmental activism and consumers' perceived responsibility. *Int. J. Consum. Stud.* **2016**, *40*, 466–474. [CrossRef]

99.　Knopman, D.S.; Susman, M.M.; Landy, M.K. Civic environmentalism: Tackling tough land-use problems with innovative governance. *Environ. Sci. Policy Sustain. Dev.* **1999**, *41*, 24–32. [CrossRef]

100. Dunlap, R.E.; Jones, R.E. Environmental concern: Conceptual and measurement issues. In *Handbook of Environmental Sociology*; Dunlap, R.E., Michelson, W., Eds.; Greenwood Press: Westport, CT, USA, 2002.

101. Schultz, P.W.; Oskamp, S.; Mainieri, T. Who recycles and when: A review of personal and situational factors. *J. Environ. Psychol.* **1995**, *15*, 105–121. [CrossRef]

102. Mannetti, L.; Pierro, A.; Livi, S. Recycling: Planned and self- expressive behavior. *J. Environ. Psychol.* **2004**, *24*, 227–236. [CrossRef]

103. Bamberg, S.; Schmidt, S. Incentives, morality or habit? Predicting students' car use for university routes with the models of Ajzen, Schwartz and Triandis. *Environ. Behav.* **2003**, *35*, 264–285. [CrossRef]

104. Heath, Y.; Gifford, R. Extending the theory of planned behaviour: Predicting the use of public transportation. *J. Appl. Soc. Psychol.* **2002**, *32*, 2154–2189. [CrossRef]

105. Poortinga, W.; Steg, L.; Vlek, C.; Wiersma, G. Household preferences for energy-saving measures: A conjoint analysis. *J. Econ. Psychol.* **2003**, *24*, 49–64. [CrossRef]

106. Stern, P.C.; Gardner, G.T. Psychological Research and Energy Policy. *Am. Psychol.* **1981**, *36*, 329–342. [CrossRef]

107. Corral-Verdugo, V.; Bechtel, R.B.; Fraijo-Sing, B. Environmental beliefs and water conservation: An empirical study. *J. Environ. Psychol.* **2003**, *23*, 247–257. [CrossRef]

108. Sibley, C.G.; Liu, J.H. Differentiating Active and Passive Littering A Two-Stage Process Model of Littering Behaviour in Public Spaces. *Environ. Behav.* **2003**, *35*, 415–433. [CrossRef]

109. McFarlane, B.L.; Boxall, P.C. Activism in the forest sector: The role of social psychological and social structural variables. *J. Environ. Psychol.* **2003**, *23*, 79–87. [CrossRef]

110. Tanner, C.; Kaiser, F.G.; Kast, S. Contextual conditions of ecological consumerism: A food-purchasing survey. *Environ. Behav.* **2004**, *36*, 94–111. [CrossRef]

111. Ritter, A.M.; Borchardt, M.; Vaccaro, G.L.R.; Pereira, G.M.; Almeida, F. Motivations for Promoting the Consumption Of Green Products In An Emerging Country: Exploring Attitudes Of Brazilian Consumers. *J. Clean. Prod.* **2015**, *106*, 507–520. [CrossRef]

112. Akenji, L. Consumer scapegoatism and limits to green consumerism. *J. Clean. Prod.* **2014**, *63*, 13–23. [CrossRef]

113. Elliott, R. The taste for green: The possibilities and dynamics of status differentiation through green consumption. *Poetics* **2013**, *41*, 294–322. [CrossRef]

114. Han, H.; Kim, Y. An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *Int. J. Hosp. Manag.* **2010**, *29*, 659–668. [CrossRef]

115. Schaefer, A.; Crane, A. Addressing sustainability and consumption. *J. Macromark.* **2005**, *25*, 76–92. [CrossRef]

116. Mont, O.; Plepys, A. Sustainable consumption progress: Should we be proud or alarmed? *J. Clean. Prod.* **2008**, *16*, 531–537. [CrossRef]

117. Schlossberg, H. Green marketing has been planted-now watch it grow. *Mark. News* **1991**, *4*, 26–30.

118. Laroche, M.; Bergeron, J.; Barbaro-Forleo, G. Targeting consumers who are willing to pay more for environmentally friendly products. *J. Consum. Mark.* **2001**, *18*, 503–520. [CrossRef]

119. Higgins, E.T.; Friedman, R.S.; Harlow, R.E.; Idson, L.C.; Ayduk, O.N.; Taylor, A. Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *Eur. J. Soc. Psychol.* **2001**, *31*, 3–23. [CrossRef]