

Article

The Role of Connectedness in Pro-Environmental Consumption of Fashionable Commodities

Salomé Areias *, Antje Disterheft  and João Pedro Gouveia 

CENSE—Center for Environmental and Sustainability Research & CHANGE—Global Change and Sustainability Institute, NOVA School of Science and Technology, NOVA University Lisbon, Campus de Caparica, 2829-516 Caparica, Portugal

* Correspondence: s.areias@campus.fct.unl.pt

Abstract: A call for human-nature reconnection echoes among scholars to move consumers towards pro-environmental consumption. When addressing products that are deeply entangled with unconscious human desires and addictive behaviour and that are also part of one of the most toxic industries—such as fashionables—the need for consumer awareness is key. Studies both on connectedness to nature and moral emotions like guilt have consistently shown linkages with pro-environmental behaviour. However, deeper scrutiny regarding this pro-environmental behaviour is needed to grasp these variables' sphere of action. This research aims to explore the first linkages between connectedness and pro-environmental consumption. We present findings from a literature review on the impact of connectedness in consumption, particularly fashionables, following an integrative approach of a semi-systematic keyword search and snowball sampling. We present a first indication of possible drivers for connectedness and their impact on pro-environmental choices.

Keywords: connectedness to nature; pro-environmental behaviour; consumer behaviour; guilt; fashion industry



Citation: Areias, S.; Disterheft, A.; Gouveia, J.P. The Role of Connectedness in Pro-Environmental Consumption of Fashionable Commodities. *Sustainability* **2023**, *15*, 1199. <https://doi.org/10.3390/su15021199>

Academic Editor: Paweł Bryła

Received: 6 November 2022

Revised: 25 December 2022

Accepted: 27 December 2022

Published: 9 January 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

The fashion industry produces over 100 billion garments every year [1]—a volume of textiles that is over 60% plastic-based [2]. The garments produced yearly outweigh the market demand by 25% [1,3], leaving the remaining unsold garments to be partly destroyed by their brands before consumption [2] and partially embedded in a saturated resale supply chain, along with the post-consumption textile waste that accounts for more than half of the total produced per year [4–6]. Ultimately, disposed garments shipped overseas are left to poison soil and water in dumpsites with poor infrastructure in Asia and Africa [7,8].

This culture of systematic disposal is exponentiated by a global average of seven usages per garment [1,9]. Recent studies have been stressing today's addictive side of fashion consumption, in which half of Chinese, a third of Italian, and a quarter of German consumers admit they cannot stop themselves from buying, even though they realize they are buying too much [10–12], and suggesting that consumerism is a coping strategy to ease an existential discomfort associated with disconnected individualism [11,12].

The fashion industry is producing more than what consumers can use and reuse, and more than what current technology is able to recycle [1,13]. It is responsible for about 10% of total greenhouse gas emissions [9], is the second-largest consumer of water (1.5 trillion litres per year), and is responsible for about one-fifth of all industrial water pollution, just from textile treatment and dyeing [13,14].

The economic and political systems in which brands unravel their transglobal productions is complex. The manufacturing that supports the greater part of fast-fashion garment production could be considered efficient (for delivering massive amounts of clothing under tight deadlines for a low price) if not for its negative externalities like extreme poverty and environmental impacts in production countries [15], which are not being tackled, but

instead perpetuated, by the fast-fashion brands. Whereas production countries' economies are heavily dependent on clothing exportation (e.g., the share of ready-made garments in Bangladesh accounts for 83% of total exports in 2020), the worldwide liberalisation of tariffs allowed fast-fashion brands to benefit from low labour costs and to hold power to negotiate buying prices and control overall supply [15], while manoeuvring the media coverage of their non-legally binding codes of conduct and ethical commitments.

Greenwashing is prevalent in the fashion industry [16]; labelling a product as sustainable requires political awareness, and oversimplifying it as a false binary can compromise pro-environmental behaviour [17]. The fact that the European Union's directive "Environmental Claims Guidance" is just partly legally binding [18], in a context of consumption-based growth fuelled by a green narrative, encourages inherently non-environmentally friendly brands to make environmental claims [19,20]. A recent EC press release about "Screening of websites for 'greenwashing'" stated that in 42% of cases, the claims were exaggerated, false, or deceptive [21]. Studies have shown that four out of five consumers distrust fashion environmental claims [2,22,23], and that consumers do not recognize vague greenwashing either, no matter how environmentally involved they are [19,20]. Both the misinterpretation of harmful practices and the mistrust of good practices can jeopardize a government's efforts in tackling the climate crisis if the consumer is expected to choose consciously. However, consumers' decision-making is rather automatic [24] and triggered by unconscious emotions [25], and is often linked to impulsive buying within the fashion industry [5,26,27]. But mindfulness practices—related to increasing connectedness to nature [28–31]—have been shown to decrease automatic responses like impulsive purchases and increase consumers' self-control [24,31,32]. Recent findings in psychology studies have also suggested that mindful consumption choices can be driven by higher states of consciousness and awareness [31–34].

Given that urgent and complex global challenges cannot be solved by technology and governance alone [35], but by profound cultural shifts and inner transformation [36], the present study aims to gather and analyse documented information about connectedness to nature, pro-environmental consumption, and linkages between these two concepts, by going in-depth into the terminology and meaning, and focusing on the apparel industry as being susceptible to impulsive buying [37,38]. This paper is structured in four sections, apart from the acknowledgments and references at the end. Following this introductory section, section two explains the methodology under which the literature review has unfolded throughout the study. Section three introduces the findings of the study, starting with the state of the art of how connectedness and similar terms are conceptualised in multiple scientific fields, followed by considerations on consumerism and separation, and discusses further details in two sub-sections: the linkages between connectedness and pro-environmental consumption in the first, and reflections about the complexities behind the definition of pro-environmental choice and the consumer decision-making in the second. Section four explains this study's limitations and presents suggestions for future research, followed by section five, which sums up overall conclusions, highlighting the overall contribution of this study.

2. Methodology for the Exploratory Literature Review

This study was carried out in two phases, following an overall semi-systematic literature review design [39]. In the first stage of review, a total of 12 relevant reports and studies from international organizations with known activities, such as the European Commission [40], Ellen MacArthur [1,41], Circle Economy [42], Changing Markets [2], Global Fashion Agenda [13,43], Greenpeace [10,44,45], McKinsey [3,9,46], and Fashion Revolution [47], were assessed to contextualise the current call for more sustainable consumption of fashionables in an unsustainable economic and political system. All the reports described above were the most up-to-date and downloaded directly from the organizations' respective websites.

Because connectedness is a concept that is scattered throughout the literature in many fields of study, in a second phase of the review, a semi-systematic method was applied as a strategy to map the linkages between connectedness and similar terms with pro-environmental behaviour in general, and pro-environmental fashion consumption in particular, as well as to identify knowledge gaps within the literature [39]. Unlike the systematic method, that has strict search strategies to synthesize findings of a particular question, the semi-systematic method is a literature review approach that maps theoretical themes across multiple science fields, and that is adequate for topics which have been conceptualized differently and studied by various groups of researchers [39,48]. Web of Science search engines were assessed to list these linkages and cluster conceptualizations of the terms. A review of scientific publications on diverse fields, namely psychology, psychoanalytic studies, neuroscience, marketing, management, sustainability, education, and ecological economics, was undertaken by following semi-systematic keyword searches of Web of Science databases. Table 1 shows the applied search strategy of using a combination of a first group of eight words related to the self (A) with a second group of seven words related to pro-environmental behaviour (B) and/or a third group of words related to consumption in general and fashion in particular (C). Words in column A were combined with words in column B, and then with words in column C. Interchangeable combinations of the three columns were also searched.

Table 1. The three sets of keywords that were combined under a semi-systematic method.

A. Keywords Related to Self ($n = 8$)	B. Keywords Related to Pro-Environmental ($n = 7$)	C. Keywords Related to Consumption ($n = 6$)
Connectedness	Awareness	Consumption
Oneness	Responsible	Fashion
Interconnectedness	Sustainable	Clothing
Nature relatedness	Ethical	Consumer
Human-nature	Ecologic	Buying
Science fields positively related to connectedness:	Environment	Shopping
Psychoanalysis	Nature	
Mindfulness		
Ecopsychology		

In order to be initially selected, the publications had to address connectedness within a scope of relatedness between humans and the natural world. Other references to connectedness as the state of being joined together or in the field of social media were irrelevant for this study. The keyword search was complemented with a snowball sampling approach, by searching for articles of the same author and other documents within the reference lists, which traced findings back to older publications, and identified relevant keywords within the process (such as greenwashing, impulsive buying, climate anxiety, and feelings like guilt and pride, which showed linkages to pro-environmental behaviour as well). The identified linkages were then categorised as positive or negative and organized by reference to pro-environmental consumption (and particularly of fashion) or more generically to pro-environmental behaviour.

All searches were performed between March 2021 and April 2022, leading to 131 publications, of which the title and abstract were screened to ascertain their relevance, yielding a total amount of 29 final relevant publications in this second phase of the review. The final selection of 29 publications consists of studies that relate connectedness with pro-environmental consumption or with pro-environmental behaviour. Having established no geographical limit nor temporal limit regarding the articles' country of origin and year of publication, all the selected content linking connectedness to environmentally responsible behaviour was published from 1949 to the present year of 2022, with special prevalence in

the last decade (Figure 1), and the great majority of studies were undertaken in Germany and the USA.

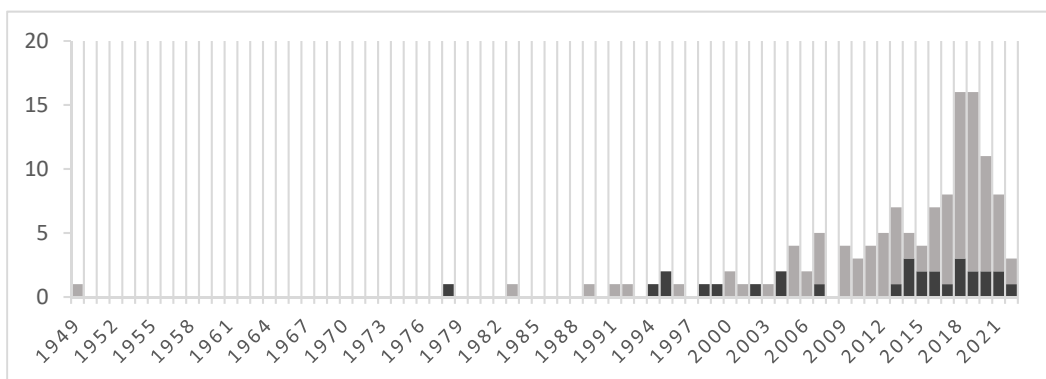


Figure 1. Chronologic distribution of the selected 29 articles’ year of publication amongst the total publications yielded in the keyword search.

3. Findings on Connectedness and Consumption

The terminology referring to a unifying principle with an “other” and with nature varies among the selected publications. Although the great majority of studies were based on Connectedness (a total of 15 publications), there are also cases in which this belief is brought up as Oneness (three publications), biospheric values (one publication), environmental altruism (one publication), and emotional affinity toward nature (one publication), as listed further below in Table 2. Literature on the concept of being at one with the universe can be traced back to ancient western philosophy, from pre-Socratic ideas on a unifying principle of all phenomena, to Plato’s argument that “the one” must come before “the many” [49]. Oneness beliefs can be widely found in psychoanalysis literature [50], from Freud’s [51] Hindu-inspired term “oceanic feeling” as a sense of limitlessness and of “being one with the external world as a whole”, to Winnicott’s [52] dissertations on the transcendence of the self, or Fromm’s [53] “symbiotic relationship with the universe” as a mediator between “to have” and “to be”; addressed in the field of religious studies [49,50,54,55], and also discussed within the scope of mindfulness research, as an inherent principle of Buddhism and yogic science [31,32,56]. The description of the concept is transdisciplinary: all fields above refer to a deeper integration of the self, catalysed by “being in the present moment”, by the absence of self-consciousness, and an experience of “unity with an ‘other’” [50].

Table 2. Different types of connectedness and their links to pro-environmental and consumption behaviour.

Designation	Reference(s)	Definition(s)	Link(s) to Pro-Environmental Behaviour	Link(s) to Consumption Behaviour	Drivers
Connectedness to nature	Mayer & Frantz, 2004 [57]	Schultz’s (2002) “extent to which an individual includes nature within his/her cognitive representation of self”	Positively related to ecological behaviour and subjective well-being	Negatively related do consumerism	Biospheric concern Altruism Egoism Environmentalism Perspective-taking Life satisfaction
	Frantz & Mayer, 2013 [58]	Extent to which an individual includes nature within his/her cognitive representation of self; Expanding one’s sense of self to include ‘another’	Positively related to environmentally responsible behaviour	Positively related to conservation behaviour (e.g., electricity use)	n/a

Table 2. Cont.

Designation	Reference(s)	Definition(s)	Link(s) to Pro-Environmental Behaviour	Link(s) to Consumption Behaviour	Drivers
	Restall & Conrad, 2015 [59]	Identify oneself with the natural environment; relationship with nature.	Positively related to pro-environmental behaviour	n/a	
	Barbaro & Pickett, 2016 [24]	Including nature within the cognitive representation of the self	Positively related to pro-environmental behaviour	Positively related to behaviours such as recycling, buying local products, using sharing services	Mindfulness Observing Nonreactivity Describing Nonjudging Acting
	Fischer et al., 2017 [31]	Being part of nature	n/a	Positively linked to sustainable choices and lowering consumption, as a mediator between mindfulness and consumption behaviour	n/a
	Ives et al., 2018 [60]	Five definitions of connectedness, from external to internal dimension: 1. Material 2. Experiential 3. Cognitive 4. Emotional 5. Philosophical	Positively related to pro-environmental behaviour	n/a	n/a
	Geiger et al., 2019 [61]	n/a	n/a	Positively linked to sustainable choices, as a mediator between mindfulness and consumption behaviour	n/a
	Dong et al., 2020 [62]	Belongingness; sense of being an integral part of the natural world	n/a	Direct positive effects on green purchasing and recycling, and indirect positive effects on sustainable consumption behaviour	Love of nature: - Passion for nature - Intimacy with nature - Commitment to nature
	Wei et al., 2021 [32]	The extent to which individuals include nature in their representation of themselves; oneness with the natural world State of consciousness comprising symbiotic cognitive, affective, and experiential traits that reflect a sustained awareness of the interrelatedness between oneself and the rest of nature	n/a	Positively related to ethical consumption (both refinement and reduction)	n/a
Connectedness with nature	Zylstra et al., 2014 [14]	Cognitive implicit connection between an individual's self and nature (outside of conscious awareness)	Positively related to environmentally responsible behaviour	n/a	n/a
Human-nature connectedness	Schultz, 2002 [63]; Schultz et al., 2004 [64]; Schultz & Tabanico, 2007 [65]	Element of the presented "inner transformation sustainability nexus"	Positively related to pro-environmental and pro-social behaviour	Positively related to pro-environmental and pro-social consumer choices, and sustainable consumption practices	Social activism

Table 2. Cont.

Designation	Reference(s)	Definition(s)	Link(s) to Pro-Environmental Behaviour	Link(s) to Consumption Behaviour	Drivers
	Whitburn et al., 2019 [66]	Expanding self-identity to include the natural environment; experiences of belonging with nature	Positively related to pro-environmental behaviour	Positively related to pro-environmental consumption	n/a
	Barragan-Jason et al., 2022 [67]	Extent to which humans see themselves as part of nature	Positively related to pro-environmental behaviour	Negatively correlated with materialism/consumerism	Political conservatism Naturalist knowledge Time spent in outdoors Mindfulness practices Happiness and good health Mindfulness Self-compassion Mental health Eudaimonic wellbeing Civic attitude Life satisfaction Meaning in life Transcendence Elevation and Hope Spiritual oneness Physical oneness Religiousness Mental health (depression and anxiety) Beliefs about the limits to growth Beliefs about humanity's ability to upset the balance of nature Anti-anthropocentrism Values Worldview Awareness of adverse consequences for valued objects Perceived ability to reduce the threat, and personal norms for pro-environmental behaviour Self-transcendence Self-enhancement Openness Conservation Awareness of consequences Ascribed responsibility
	Sheffield et al., 2022 [29]	Psychological construct that reflects how people think about, feel about, and relate to nature	Positively related to pro-environmental behaviour	n/a	
Oneness	Garfield et al., 2014 [55]	Inherent unity of all phenomena	Positively related to environmentally responsible behaviour	n/a	
New Environmental Paradigm (NEP)	Dunlap & Van Liere, 1978 [68]	Emerging ecological worldview for a balanced nature	Positively related to pro-environmental behaviour	n/a	
Biospheric Values	P. C. Stern & Dietz, 1994; Paul C. Stern et al., 1995 [69]	Perceiving phenomena based on costs or benefits to eco-systems or the biosphere	Positively related to pro-environmental behaviour	n/a	
Environmental altruism	Schultz & Zelezny, 1998 [70]	Internal values that lead to behaviour that benefit the natural environment, without an expectation of anything in return	Positively related to pro-environmental behaviour	n/a	

Table 2. Cont.

Designation	Reference(s)	Definition(s)	Link(s) to Pro-Environmental Behaviour	Link(s) to Consumption Behaviour	Drivers
Emotional affinity toward nature	Kals et al., 1999 [71]	Feeling good, free, safe in nature, and feeling a oneness with nature; Love of nature	Positively related to nature-protective behaviour	n/a	Experiences w/nature Cognitive interest Emotional indignation about insufficient protection Willingness criteria
Compassion	Geiger & Keller, 2018 [72]	Other-related emotions that trigger prosocial behaviour	Positively related to pro-environmental behaviour	Positively linked to sustainable purchase criteria of clothing; positive effect on the willingness to pay extra for fair trade clothes	n/a

In the past decade, scholars proposed a theoretical review of the concept of connectedness, alleging divergence and incoherence in the meaning and possible misinterpretations of research findings [14,60]. Zylstra [14] distinguishes physical and psychological disconnection from nature and speaks about a symbiotic relationship between three dimensions of connectedness: cognitive, emotional, and experiential. Ives [60] and his colleagues suggest that connectedness has been addressed under a spectrum of meanings that vary from an external (or shallow) perspective to an internal (or deep) perspective. Five dimensions of meaning are presented by level of depth: material (such as resource use), experiential (such as outdoor activities), cognitive (such as beliefs), emotional (such as affective responses), and philosophical (that refers to the perspective over humanity's place within the natural world). A similar study exploring the typology of the terms suggests that connectedness is under the scope of oneness, being it manifested as an experience, intuition, or belief [73]. This paper explores connectedness under Zylstra's [14] psychological perspective and under Ives' [60] internal perspective, which encompasses cognitive, emotional, and philosophical dimensions and that overall follows the original scope of definitions of oneness.

A call for reconnection echoes the views of several researchers across many scientific fields as a potential solution for sustainable futures [14,63,74–76]. Vandana Shiva [77] characterizes in her book "Oneness vs. the 1%" the current economic paradigm as an "apartheid" to explain how humans separated themselves from nature by regarding natural resources as "dead inert matter, mere raw material for exploitation". In Fromm's [53] perspective, a minimization of "instinct" and maximization of "the capacity for reason" led humans to lose their original oneness with nature. Economic growth, its dependence on resource exploitation to fuel consumption, and the relentless pursuit of wealth [78] are presented as causes of physical and spiritual separation between humans and nature [75], which can be observed in several episodes in human history such as the Roman system of divide and rule, Colonialism, and more recently, the Industrial Revolution [14].

Veblen's [37] conspicuous consumption highlights a systemic addiction to fashion trends and blames the "barbarism" imposed by a status-driven economic system. Humans' engagement in fashion is rooted in a need for self-adornment considered to be as primitive as any of prehistoric bodily expressions [79], just as today it is based on a consecutive pursuit for social validation of one's identity construct [10,12,80]. Ultimately, the materialistic drive for purchase power follows an expectation of fulfilment and happiness, cultivated by advertisement narratives, and to cope with a "disconnected individualism" [11,12,81]. However, evidence shows that happiness has not increased in countries with significant economic growth [82], and that nowadays, fashion consumption is motivated by a temporary fix of excitement and stress relief that lasts less than a day after the purchase, on average [10]. Increased finances and spending capacity do not correlate with wellbeing.

Over a certain level of income, marginal increases in life satisfaction decrease rapidly as income rises [83]. Materialistic individuals report lower levels of relatedness, competence, autonomy, gratitude, and meaning in life [84], continually driving them to consume more to surpass the previous acquisition but never reaching a point when their life is sufficiently pleasurable and satisfying [85]. They also rate their social interactions less positively [86], and engage in fewer environmentally friendly activities [87,88]. Today's centralized massive production models based on transglobal supply chains have caused a physical separation between the raw material extractor, the farmer, the artisan, and the final consumer, that leaves an emotional void between the final consumer and the finalized product. When looking at the fashion industry, the consumer's involvement with the maker and with the process of making a garment has a positive effect on the willingness to pay a fair price for it [72].

3.1. Links between Connectedness and Pro-Environmental Consumption

The first stage of semi-systematic keyword searches has shown a general consensus among the scientific community studying the links between connectedness and consumption and relevant levels of reliability. Connectedness' early links to environmentally responsible behaviour (ERB) takes us to Aldo Leopold's [74] work on "land ethic", which suggests that harm to nature or to others is experienced as harm to self, as far as individuals perceive themselves as egalitarian members of the natural world [14,58]. Leopold's view beholds a potential protective behaviour towards nature, in a sense that "[w]e abuse land because we regard it as a commodity belonging to us", but "[w]hen we see land as a community to which we belong, we may begin to use it with love and respect". Other nonempirical theorizations about humans' inner relationship to the natural world were drawn [64], and many studies exploring correlations between connectedness and pro-environmental behaviour followed [14,57,68,70,71,89,90] (Table 2).

Psychologists have explored the measurability of connectedness and its relation to environmental-based behaviour. Several scales and models were developed since Dunlap's [68] New Environmental Paradigm (NEP) [14,63,64,71,91]. Although not all studies use the term connectedness, variables are based on a common internal perspective that can be drawn to the extent to which an individual includes the natural world within the representation of the self. Psychologists exploring oneness with the Oneness Beliefs Scale (OBS) and the Eco-spirituality Scale also report positive links to environmentally responsible behaviour [54,55], and suggest that oneness is a better predictor of ERB than religiousness [49] (Figure 2).

Mayer & Frantz [57] first studied the link between connectedness to nature and consumption within the process of developing and testing the Connectedness to Nature Scale (CNS). Both NEP and CNS studies indicate that connectedness to nature is negatively related to consumerism, and with fair reliability. As scattered meanings of connectedness have been clustered by researchers for the past decade, the links with consumption behaviour have also been discriminated into specific consumption-related behaviours (e.g., recycling) [24,36,62], ethical purchases [24,62,72], compliance with fair pricing [72], and consumption reduction [31,32,58]. Connectedness to nature seems to have positive effects in lowering electricity use [58], buying from local producers, using sharing services [24], choosing green products, and willing to pay extra for fair trade [61,72] (Table 2). Figure 2 shows the studies that present positive links between connectedness to nature with pro-environmental behaviour and pro-environmental consumption. The studies also show the same links for similar concepts such as oneness, environmental altruism, new environmental paradigm, and biospheric values.

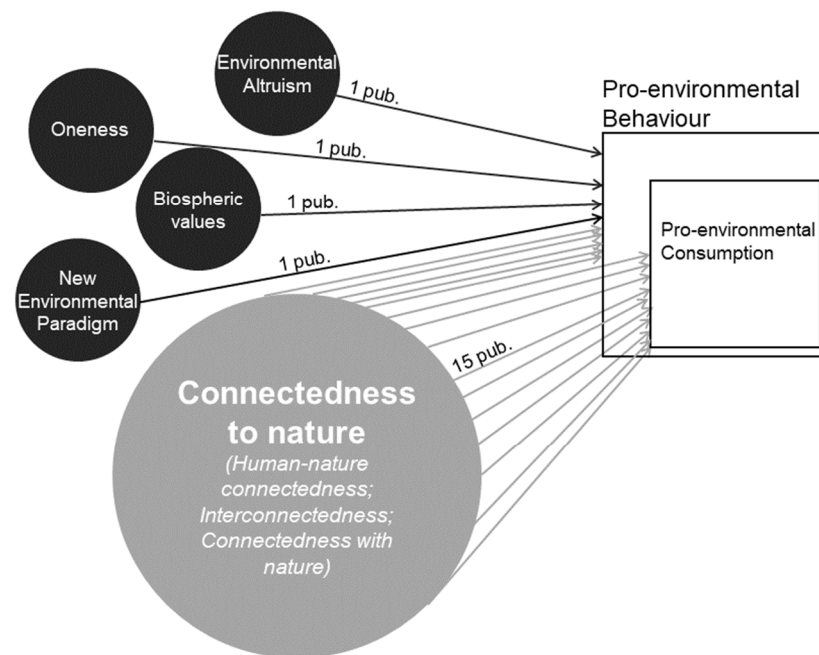


Figure 2. The number of publications for each type of connectedness with links to pro-environmental behaviour and consumption.

Connectedness to nature is also an important mediator between mindfulness and pro-environmental behaviour and consumption [31,61]. Wei [32] and her colleagues developed a recent study on pro-environmental consumption driven by mindfulness, in which connectedness to nature can be observed as a predictor of both consumption *refinement* (such as buying from businesses with corporate social responsibility concerns) and of consumption *reduction* (voluntary simplicity lifestyle and frugal purchasing). Whereas, *self-control*—another mindfulness-related variable of Wei’s study, defined as a capacity to adapt the self to live happier and healthier lives [92]—is only observed to affect consumption *reduction*, but not consumption *refinement*. This effortless side of connectedness-driven pro-environmental consumption corroborates with previous studies that suggest that individuals reporting connectedness to nature freely engage in inconvenient pro-environmental behaviour [58,89]. Managing wellbeing is therefore seen as one of the main challenges to be addressed when transitioning to degrowth economics [93].

An emotional dimension of connectedness to nature—or *love of nature*, a looser term that Kals [71] borrowed from romantic literature for his study on interest in nature—seems to have a critical role in pro-environmental consumption [32,57,62]. Other similar principles like altruism, willingness to help, activism, or concerns for the wellness of others and society not only play an important part as well [32,36,57], but establish a contrast with the self-centred principles of guilt-driven pro-environmental consumption observed before in Antonetti & Maklan’s [94] and Chatzidakis [95] research. Furthermore, connectedness to nature may constitute a more enduring and far-reaching motivation for environmentally responsible behaviour, in a sense that it is potentially transferred to multiple lifestyle choices and upholds a broader spectrum of action—a particularly relevant fact for transient economic incentives [14].

3.2. Pro-Environmental Choice and the Consumer’s Decision-Making

Although consumers are willing to pay more for environmentally friendly products [43,62,72] and responsible, ethical, and sustainable consumption per se were found to share consonant definitions nowadays [91], opinions differ on which specific behaviours or purchases might correspond to such concepts. As ethics shift according to context, ethical consumption becomes multidimensional by itself [32]. For example, from a one-dimensional perspective, textile recycling may be perceived as a responsible choice [24,62].

However, recycling-related behaviours might require deeper scrutiny in order to be labelled as such, when aiming at the pro-environmental outcome and considering the limitations of the textile recycling system [4,13]. Dumping post-consumption waste in collection containers might represent a heavy toll on communities and the environment. Not only does closed-loop recycling represent less than 1% of overall textile production, most of the average 25% of the world garments collected for reuse and recycling end up dumped on poorly sustained African landfills [1,3,96].

The fact that people do not always behave environmentally conscious does not necessarily mean that they are not concerned about the environment [17,63,97,98]. Greenwashing—known as a corporate practice of using unsubstantiated claims to mislead consumers into believing their policies or products are environmentally friendly—might partly explain the mismatch between ethically labelled choices and its actual outcome [20]. Following the example above, fashion brands might stock up on clothing recycled from plastic waste and sell it as a deceiving pro-environmental solution [10] when it does not really curb the exponential growth in the use of synthetic fibres [2]. Sustainability is a spectrum and requires consumer awareness to thoroughly weigh consumption choices [32].

Pro-environmental behaviour can be fostered by a large range of motivations that can be clustered into spiritual [32,54,55] or intrinsic factors, such as empathy [99], and normative factors like political or ethical obligation and social status [17,32,100]. It is, however, suggested by researchers in the fields of psychology and neuroscience that consumer decision making is automatic [24], triggered mainly by unconscious emotions [25], subconsciously weighing abstract moral principles against utilitarian outcomes [95]. Guilt, regret, and remorse have been studied as post-consumption induced moral emotions [10,25] and as emotions driven by the climate crisis [101–103]. However, throughout this literature review, moral emotions were also found to precede pro-environmental consumption behaviour (Table 3). For comparison, whereas connectedness (as well as all similar concepts contemplated in this review) positively correlates to pro-environmental behaviour in general and pro-environmental consumption in particular (which includes being negatively correlated to consumerism), guilt positively influences pro-environmental behaviour and consumption [94,95], but only under reparatory circumstances or until a certain threshold of fear [95]. Besides being positively connected to denial of climate change [102,104] and negatively connected to making claims about politics or economic freedom [71,105], studies also suggest that guilt may “backfire” into hazardous and norm-violating behaviour [95,106] (Figure 3).

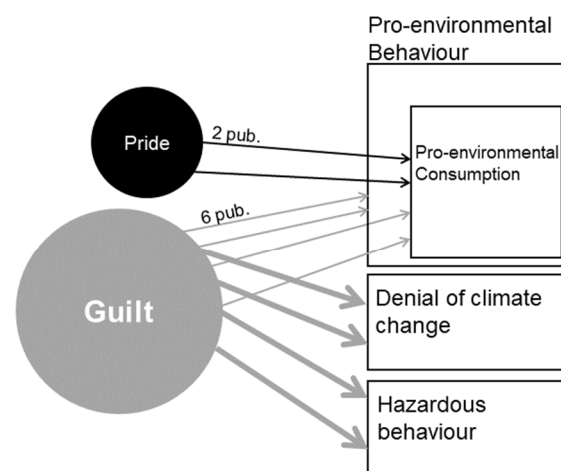


Figure 3. The number of publications about moral emotions (guilt and pride) with links to pro-environmental behaviour and consumption.

Table 3. Links between moral emotions and environmental behaviour.

Moral Emotion	Reference(s)	Link to Environmental Behaviour
Guilt	Miller, 2005 [104]; Zylstra et al., 2014 [14]	Positively related to denial, frustration, disempowerment.
Guilt and pride	Antonetti & Maklan, 2014 [94]	Positively influences the decision to buy ethical products. Fear of punishment driven by persecutory guilt positively influences norm-abiding behaviour.
Guilt (unconscious)	Chatzidakis, 2015 [95]	Need for punishment driven by persecutory guilt positively influences norm-violating behaviour. Need for reparation driven by reparatory guilt positively influences pro-social behaviour. Positively correlated with: <ul style="list-style-type: none"> - claiming a right to clean ecology. - claiming prohibitive laws and ecological taxes.
Guilt (+anxiety and resentment)	Kals et al., 1999 [71]; Montada & Kals, 1995 [105]	Negatively correlated with: <ul style="list-style-type: none"> - claiming civil and economic freedom rights. - appraisals of ecological politics in general. - mere appeals to avoid pollution as just. Positively connected to sustainable consumption. However, guilt and anger are less powerful influences than pride on sustainable consumption choices, and they may backfire.
Guilt, pride (+respect and anger)	Wang & Wu, 2016 [106]	Guilt, pride, and respect are positively connected to: <ol style="list-style-type: none"> (a) resisting irresponsible purchases. (b) buying responsibly.
Guilt (+helplessness disappointment, and loss)	Haseley, 2019 [102]	Positively related to disavowal, negation, or denial of climate change

Given that the purchase of fashionables is intimately connected to addictive behaviour by involving an inherent desire for status and belonging that lasts a very short period of time [72,107], and considering that consumption reduction is an impactful pro-environmental behaviour [31,32,57,58], consumers have been reporting discrepancies between their ethical concerns and intentions and their impulsive purchases: they crave the recognition, confidence, excitement, and self-esteem that fashion might bring them, but do not want to be judged for their purchases or for how much they spend; and often state that the shopping buzz does not last more than a few days [10]. For example, 59% of Chinese consumers report that they cannot stop making impulse buys even though they realize they are buying too much. Social media peer pressure, online shopping platforms, and promotions are known strategies that fashion brands use to make shopping harder to resist [10].

An alert state of consciousness over personal consumption could help consumers better analyse their choices [33]. Recent studies have found that mindfulness enhances consumers' awareness over their thoughts, emotions, and consumption responses [32]; the ability to hold internal biases without self-criticism or guilt [108,109]; the capacity to break away from unconscious pursuits of pleasure and avoidance of pain through consumption practices [32,108]; and the awareness of available sustainable options [31,34].

4. Discussion, Limitations, and Further Research

Connectedness is a concept that appears throughout many fields of literature under many terms. However, they all refer to a deeper integration of the self when experiencing unity with an "other" [50], having also links to a communitarian drive, altruism, activism, and a sense of commitment with nature [24,36,57,62]. Human-nature disconnection is suggested to be one of the causes of climate change and reconnection is pointed as the solution for its mitigation [14,63,74–76]. Consumerism is considered a symptom of separation,

by consisting in a constant pursuit of ethereal moments of excitement under promises of self-esteem and belonging by fashion advertisement and social media [10–12,80], which leads to an underlying insight that reconnection can bring a positive impact to fashion consumption. All the linkages found in the reviewed studies that measure connectedness and relate connectedness to pro-environmental consumption are positive and present solid levels of reliability.

However, using self-report methods and oversimplifying sustainability on a list of individual behaviours might mislead results. For example, following Greenwald's [110] considerations on the unconsciousness of a person's beliefs, Schultz [64] acknowledges the possibility for connectedness to be unconscious, or at least not "readily available for retrieval", and thus is not suitable to be self-reported. Applying alternative measurement techniques that do not require participants' conscious awareness, such as the Implicit Association Test (IAT), might better assess the degree to which people associate themselves with nature through judgments that are under the control of automatically activated evaluation [64,65,110,111]. Given that as much as 95 percent of consumers' thinking occurs in their unconscious minds and that the selection process is relatively automatic [25,112], evaluating their choices through self-report and expecting rational reasoning do not adequately depict how consumers make choices [25,113].

On another note—and to quote the terms of Wei [32] and her colleagues—whereas consumption reduction provides a simple scope for pro-environmental evaluation (either participants buy or do not buy), it is not as easy to unravel consumption refinement choices as sustainable. If we consider Barbaro & Picket's [24] study, in an example participants were asked to self-report their average frequency of engagement in 17 daily pro-environmental behaviour, tools were designed thoroughly to overcome the simplistic way in which previous studies addressed green behaviour. Alternative methods were suggested to cover self-report shortcomings, such as laboratory setting and use of a diary to record pro-environmental behaviours. However, developing a list of individual behaviours to be considered as ethical or unethical by researchers still misses the overall complexity of the textile industry supply chains, political system, and imminent greenwashing.

In what concerns fashion consumption in particular, although there are studies combining emotions like compassion (and also guilt) with the consumption of sustainable fashion, and connecting mindfulness as a practice with the consumption of fashionables, the reviewed literature in this specific field did not deliver links to a more profound notion of interconnectedness [72,114].

In his work "To have or to be?", the psychoanalyst Erich Fromm [53] describes the current society values as based on the idea that "the very essence of being is having" and shares his considerations on how both the psychoanalytical method and empirical anthropological data contributed to contemplate it as the most crucial problem of existence. A psychoanalytical deconstruction of consumerism that also encompasses the insightful links between mindfulness and consumer awareness [32,33,108] can potentially disclose revolutionary measures and new fields of study to shift consumption behaviour patterns with the required levels of depth pointed by Woiwode et al. [36]. Further research steps shall contemplate the complexities behind consumer awareness and the desire for fashionables, and the adequacy of research methods.

5. Conclusions

This paper explores the links between connectedness and pro-environmental behaviour, and pro-environmental consumption of fashionables, following an emergent need to lower fashion's environmental impact and also a lack of awareness among consumers. An integrative approach of a semi-systematic keyword search and snowball sampling was applied for this aim. All linkages between connectedness and responsible behaviour identified in this exploratory literature review were found to be positive. The same case happens for the studies showing links between connectedness and pro-environmental consumption. Outlining the economic and political context that supports today's consumption patterns

allowed us to grasp the propensity for ethically labelled choices with uncertain outcomes and for excessive and impulsive buying of clothing, regardless of pro-environmental concerns. Even though environmentally responsible consumption is sometimes driven by guilt, this moral emotion sometimes has the opposite “shutdown” effect of denial, suppression of political claims, and even engagement in hazardous behaviour. Connectedness is framed in this literature review as an enhancer of pro-environmental consumption, but also as positively linked to mindful practices defined by high states of awareness. Therefore, the study of connectedness and its links to pro-environmental consumption opens the way to further substantiate the consumers’ awareness of their emotional responses and the complexity of sustainability, having in sight adequate research methods that can also grasp unconscious consumption behaviour and avoid oversimplifying sustainability.

Author Contributions: Conceptualization, S.A.; methodology, S.A.; validation, S.A., A.D. and J.P.G.; formal analysis, S.A.; investigation, S.A.; resources, S.A.; data curation, S.A.; writing—original draft preparation, S.A.; writing—review and editing, A.D. and J.P.G.; visualization, S.A.; supervision, A.D. and J.P.G.; project administration, S.A. All authors have read and agreed to the published version of the manuscript.

Funding: The authors acknowledge and are thankful for the support provided to CENSE by the Portuguese Foundation for Science and Technology (FCT) through the strategic project UIDB/04085/2020. Salomé’s work has also been supported by FCT through the scholarship UI/BD/150893/2021.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Ellen MacArthur Foundation. A New Textiles Economy: Redesigning Fashion’s Future. 2017. Available online: <https://www.ellenmacarthurfoundation.org/publications/a-new-textiles-economy-redesigning-fashions-future> (accessed on 21 April 2021).
2. Changing Markets Foundation. Fossil Fashion: The Hidden Reliance of Fast Fashion on Fossil Fuels. 2021. Available online: https://changingmarkets.org/wp-content/uploads/2021/01/FOSSIL-FASHION_Web-compressed.pdf (accessed on 21 April 2021).
3. Marchessou, S.; Gerstell, E. *The State of Fashion 2021*; McKinsey Co.: Atlanta, GA, USA, 2021; pp. 100–107. Available online: <https://www.mckinsey.com/industries/retail/our-insights/state-of-fashion> (accessed on 21 April 2021).
4. Dahlbo, H.; Aalto, K.; Eskelinen, H.; Salmenperä, H. Increasing textile circulation—Consequences and requirements. *Sustain. Prod. Consum.* **2017**, *9*, 44–57. [[CrossRef](#)]
5. Niinimäki, K.; Peters, G.; Dahlbo, H.; Perry, P.; Rissanen, T.; Gwilt, A. The environmental price of fast fashion. *Nat. Rev. Earth Environ.* **2020**, *1*, 189–200. [[CrossRef](#)]
6. Quantis International, Measuring Fashion: Environmental Impact of the Global Apparel and Footwear Industries Study. 2018. Available online: <https://quantis-intl.com/measuring-fashion-report-2018/> (accessed on 21 April 2021).
7. Brooks, A. *Clothing Poverty: The Hidden World of Fast Fashion and Second-Hand Clothes*; Zed Books Ltd.: London, UK, 2015.
8. Wolff, E.A. The global politics of African industrial policy: The case of the used clothing ban in Kenya, Uganda and Rwanda. *Rev. Int. Political Econ.* **2021**, *28*, 1308–1331. [[CrossRef](#)]
9. McKinsey. Fashion on Climate: How the Fashion Industry Can Urgently Act to Reduce Its Green House Gas Emission. 2020. Available online: <https://www.mckinsey.com/industries/retail/our-insights/fashion-on-climate> (accessed on 21 April 2021).
10. Greenpeace International, after the Binge the Hangover—Greenpeace International. 2017. Available online: <https://www.greenpeace.org/international/publication/6884/after-the-binge-the-hangover/> (accessed on 21 April 2021).
11. McGowan, T. *Capitalism and Desire: The Psychic Cost of Markets*; Columbia University Press: New York, NY, USA, 2016.
12. Taylor, D.M.; Segal, D. Healing ourselves and healing the world: Consumerism and the culture of addiction. *J. Futures Stud.* **2015**, *19*, 77–86.
13. Kerr, J.; Landry, J. Pulse of the Fashion Industry. 2017. Available online: http://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf (accessed on 21 April 2021).
14. Zylstra, M.J.; Knight, A.T.; Esler, K.J.; Le Grange, L.L.L. Connectedness as a Core Conservation Concern: An Interdisciplinary Review of Theory and a Call for Practice. *Springer Sci. Rev.* **2014**, *2*, 119–143. [[CrossRef](#)]
15. Reichel, A.; Mortensen, L.F.; Asquith, M.; Bogdanovic, J. Environmental Indicator Report 2014. 2014. Available online: <http://www.eea.europa.eu/publications/environmental-indicator-report-2014> (accessed on 21 April 2021).

16. Changing Markets Foundation. Licence to Greenwash. 2022. Available online: <http://changingmarkets.org/wp-content/uploads/2022/03/LICENCE-TO-GREENWASH-FULL-REPORT.pdf> (accessed on 1 April 2022).
17. Bray, J.; Johns, N.; Kilburn, D. An Exploratory Study into the Factors Impeding Ethical Consumption. *J. Bus. Ethics* **2011**, *98*, 597–608. [CrossRef]
18. European Union. *Directive 2005/29/EC of the European Parliament and of the Council*; European Union: Brussels, Belgium, 2005. [CrossRef]
19. Schmuck, D.; Matthes, J.; Naderer, B. Misleading Consumers with Green Advertising? An Affect–Reason–Involvement Account of Greenwashing Effects in Environmental Advertising. *J. Advert.* **2018**, *47*, 127–145. [CrossRef]
20. Urbański, M.; UL Haque, A. Are You Environmentally Conscious Enough to Differentiate between Greenwashed and Sustainable Items? A Global Consumers Perspective. *Sustainability* **2020**, *12*, 1786. [CrossRef]
21. European Commission. Screening of Websites for “greenwashing”: Half of Green Claims Lack Evidence. 2021. Available online: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_269 (accessed on 21 April 2021).
22. European Commission. Special Eurobarometer 501: Attitudes of European Citizens towards the Environment. 2020. Available online: www.ihrsa.org/ihrsa-global-report (accessed on 21 April 2021).
23. Kahraman, A.; Kazançoğlu, İ. Understanding consumers’ purchase intentions toward natural-claimed products: A qualitative research in personal care products. *Bus. Strategy Environ.* **2019**, *28*, 1218–1233. [CrossRef]
24. Barbaro, N.; Pickett, S.M. Mindfully green: Examining the effect of connectedness to nature on the relationship between mindfulness and engagement in pro-environmental behavior. *Personal. Individ. Differ.* **2016**, *93*, 137–142. [CrossRef]
25. Zaltman, G. *How Customers Think: Essential Insights into the Mind of the Market*; Harvard Business School Press: Boston, MA, USA, 2003.
26. Pentecost, R.; Andrews, L. Fashion retailing and the bottom line: The effects of generational cohorts, gender, fashion fan ship, attitudes and impulse buying on fashion expenditure. *J. Retail. Consum. Serv.* **2010**, *17*, 43–52. [CrossRef]
27. Djafarova, E.; Bowes, T. “Instagram made Me buy it”: Generation Z impulse purchases in fashion industry. *J. Retail. Consum. Serv.* **2021**, *59*, 102345. [CrossRef]
28. Grabow, M.; Bryan, T.; Checovich, M.M.; Converse, A.K.; Middlecamp, C.; Mooney, M.; Torres, E.R.; Younkin, S.G.; Barrett, B. Mindfulness and climate change action: A feasibility study. *Sustainability* **2018**, *10*, 1508. [CrossRef] [PubMed]
29. Sheffield, D.; Butler, C.W.; Richardson, M. Improving Nature Connectedness in Adults: A Meta-Analysis, Review and Agenda. *Sustainability* **2022**, *14*, 12494. [CrossRef]
30. Geiger, S.; Grossman, P.; Schrader, U. Mindfulness and sustainability: Correlation or causation? *Curr. Opin. Psychol.* **2019**, *28*, 23–27. [CrossRef]
31. 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]
32. Wei, L.; Li, Y.; Zeng, X.; Zhu, J. Mindfulness in Ethical Consumption: The Mediating Roles of Connectedness to Nature and Self-control. In *International Marketing Review*; Emerald Publishing Limited: Bentley, UK, 2021. [CrossRef]
33. Brown, K.W.; Kasser, T. Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Soc. Indic. Res.* **2005**, *74*, 349–368. [CrossRef]
34. Ericson, T.; Kjønsstad, B.G.; Barstad, A. Mindfulness and sustainability. *Ecol. Econ.* **2014**, *104*, 73–79. [CrossRef]
35. Wamsler, C. Mind the gap: The role of mindfulness in adapting to increasing risk and climate change. *Sustain. Sci.* **2018**, *13*, 1121–1135. [CrossRef]
36. Woiwode, C.; Schöpke, N.; Bina, O.; Veciana, S.; Kunze, I.; Parodi, O.; Schweizer-Ries, P.; Wamsler, C. Inner transformation to sustainability as a deep leverage point: Fostering new avenues for change through dialogue and reflection. *Sustain. Sci.* **2021**, *16*, 841–858. [CrossRef]
37. Veblen, T. *The Theory of the Leisure Class: An Economic Study of Institutions*; The Macmillan Company: New York, NY, USA, 1899.
38. Lipovetsky, G. *The Empire of Fashion: Dressing Modern Democracy*; Princeton, N.J., Ed.; Princeton University Press: Princeton, NJ, USA, 1994.
39. Snyder, H. Literature review as a research methodology: An overview and guidelines. *J. Bus. Res.* **2019**, *104*, 333–339. [CrossRef]
40. European Commission. *Circular Economy Action Plan*; European Commission: Brussels, Belgium, 2020.
41. Ellen MacArthur Foundation. Growth within: A Circular Economy Vision for a COMPETITIVE EUROpe. 2015. Available online: <https://ellenmacarthurfoundation.org/growth-within-a-circular-economy-vision-for-a-competitive-europe> (accessed on 21 April 2021).
42. Circle Economy and Goldschmeding Foundation. Putting Circular Textiles to Work: The Employment Potential of Circular Clothing in The Netherlands. 2021. Available online: <https://www.circle-economy.com/resources/putting-circular-textiles-to-work-2> (accessed on 1 April 2022).
43. Lehmann, M.; Arici, G.; Martinez-Pardo, C. Pulse of the Fashion Industry—2019 Update. 2019. Available online: <http://media-publications.bcg.com/france/Pulse-of-the-Fashion-Industry2019.pdf> (accessed on 21 April 2021).
44. Greenpeace. Self Regulation: A Fashion Fairytale, Part 1. 2021. Available online: <https://www.greenpeace.de/sites/default/files/publications/20211122-greenpeace-detox-fashion-fairytale-engl-pt1.pdf> (accessed on 1 April 2022).
45. Greenpeace. Self Regulation: A Fashion Fairytale, Part 2. 2021. Available online: https://www.greenpeace.de/publikationen/20211122-greenpeace-detox-fashion-fairytale-engl-pt2_0.pdf (accessed on 1 April 2022).

46. Amed, I.; Berg, A.; Brantberg, L.; Hedrich, S. The State of Fashion 2020. 2020. Available online: <https://www.mckinsey.com/~{} /media/mckinsey/industries/retail/our%20insights/the%20state%20of%20fashion%202020%20navigating%20uncertainty /the-state-of-fashion-2020-final.pdf> (accessed on 21 April 2021).
47. Fashion Revolution CIC. Fashion Transparency Index 2021 by Fashion Revolution-Issuu. *Fashion Revolution*. 2021. Available online: https://issuu.com/fashionrevolution/docs/fashiontransparencyindex_2021 (accessed on 21 April 2021).
48. Wong, G.; Greenhalgh, T.; Westhorp, G.; Buckingham, J.; Pawson, R. RAMESES publication standards: Meta-narrative reviews. *J. Adv. Nurs.* **2013**, *69*, 987–1004. [[CrossRef](#)]
49. Edinger-Schons, L.M. Oneness Beliefs and Their Effect on Life Satisfaction. *Psychol. Relig. Spiritual.* **2020**, *12*, 428. [[CrossRef](#)]
50. Chirban, S.A. Oneness Experience: Looking Through Multiple Lenses. *J. Appl. Psychoanal. Stud.* **2000**, *2*, 247–264. [[CrossRef](#)]
51. Freud, S. *Civilization and Its Discontents*; Broadview Press: Peterborough, ON, Canada, 1930; Volume 21. [[CrossRef](#)]
52. Winnicott, D.W. *Playing & Reality*; Penguin: Middlesex, UK, 1971; Volume 34.
53. Fromm, E. *To Have or to Be?* Continuum: London, UK; New York, NY, USA, 1976.
54. Suganthi, L. Ecospirituality: A Scale to Measure an Individual’s Reverential Respect for the Environment. *Ecopsychology* **2019**, *11*, 110–122. [[CrossRef](#)]
55. Garfield, A.M.; Drwecki, B.B.; Moore, C.F.; Kortenkamp, K.V.; Gracz, M.D. The oneness beliefs scale: Connecting spirituality with pro-environmental behavior. *J. Sci. Study Relig.* **2014**, *53*, 356–372. [[CrossRef](#)]
56. Chang, T.F.; Askun Celik, D.; Klatt, S. From Mindfulness to Oneness: “Inner Engineering” of the Complex Adaptive Human System. *Acad. Manag. Proc.* **2018**, *2018*, 11819. [[CrossRef](#)]
57. Mayer, F.S.; Frantz, C.M.P. The connectedness to nature scale: A measure of individuals’ feeling in community with nature. *J. Environ. Psychol.* **2004**, *24*, 503–515. [[CrossRef](#)]
58. Frantz, C.M.P.; Mayer, F.S. The importance of connection to nature in assessing environmental education programs. *Stud. Educ. Eval.* **2013**, *41*, 85–89. [[CrossRef](#)]
59. Restall, B.; Conrad, E. A literature review of connectedness to nature and its potential for environmental management. *J. Environ. Manag.* **2015**, *159*, 264–278. [[CrossRef](#)]
60. Ives, C.D.; Abson, D.J.; von Wehrden, H.; Dorninger, C.; Klaniecki, K.; Fischer, J. Reconnecting with nature for sustainability. *Sustain. Sci.* **2018**, *13*, 1389–1397. [[CrossRef](#)]
61. Geiger, S.; Fischer, D. Meditating for the Planet: Effects of a Mindfulness-Based Intervention on Sustainable Consumption Behaviors. *Environ. Behav.* **2019**, *52*, 1012–1042. [[CrossRef](#)]
62. Dong, X.; Liu, S.; Li, H.; Yang, Z.; Liang, S.; Deng, N. Love of nature as a mediator between connectedness to nature and sustainable consumption behavior. *J. Clean. Prod.* **2020**, *242*, 118451. [[CrossRef](#)]
63. Schultz, P.W. *Inclusion with Nature: The Psychology Of Human-Nature Relations*; Springer: Boston, MA, USA, 2002; pp. 61–78. [[CrossRef](#)]
64. Schultz, P.W.; Shriver, C.; Tabanico, J.J.; Khazian, A.M. Implicit connections with nature. *J. Environ. Psychol.* **2004**, *24*, 31–42. [[CrossRef](#)]
65. Schultz, P.W.; Tabanico, J. Self, identity, and the natural environment: Exploring implicit connections with nature. *J. Appl. Soc. Psychol.* **2007**, *37*, 1219–1247. [[CrossRef](#)]
66. Whitburn, J.; Linklater, W.; Abrahamse, W. Meta-analysis of human connection to nature and proenvironmental behavior. *Conserv. Biol.* **2020**, *34*, 180–193. [[CrossRef](#)]
67. Barragan-Jason, G.; de Mazancourt, C.; Parmesan, C.; Singer, M.C.; Loreau, M. Human–nature connectedness as a pathway to sustainability: A global meta-analysis. *Conserv. Lett.* **2022**, *15*, 1–7. [[CrossRef](#)]
68. Dunlap, R.E.; Van Liere, K.D. The “new environmental paradigm”. *J. Environ. Educ.* **1978**, *9*, 10–19. [[CrossRef](#)]
69. Stern, P.C.; Dietz, T. The value basis of environmental concern. *J. Soc. Issues* **1994**, *50*, 65–84. [[CrossRef](#)]
70. Schultz, P.W.; Zelezny, L.C. Values and proenvironmental behavior a five-country survey. *J. Cross-Cult. Psychol.* **1998**, *29*, 540–558. [[CrossRef](#)]
71. Kals, E.; Schumacher, D.; Montada, L. Emotional affinity toward nature as a motivational basis to protect nature. *Environ. Behav.* **1999**, *31*, 178–202. [[CrossRef](#)]
72. Geiger, S.; Keller, J. Shopping for Clothes and Sensitivity to the Suffering of Others: The Role of Compassion and Values in Sustainable Fashion Consumption. *Environ. Behav.* **2018**, *50*, 1119–1144. [[CrossRef](#)]
73. Coomber, T.; Harré, N. Psychological Oneness: A Typology. *Rev. Gen. Psychol.* **2022**, *26*, 49–67. [[CrossRef](#)]
74. Leopold, A. *A Sand County Almanac*; Oxford University Press: New York, NY, USA, 1949. [[CrossRef](#)]
75. Chalquist, C. A look at the ecotherapy research evidence. *Ecopsychology* **2009**, *1*, 64–74. [[CrossRef](#)]
76. Pyle, R.M. Nature matrix: Reconnecting people and nature. *Oryx* **2003**, *37*, 206–214. [[CrossRef](#)]
77. Shiva, V. *Oneness vs. the 1%: Shattering Illusions, Seeding Freedom*; Chelsea Green Publishing: White River Junction, VT, USA, 2020.
78. Rockström, J.; Steffen, W.; Noone, K.; Persson, Å.; Chapin, F.S.; Lambin, E.F.; Lenton, T.M.; Scheffer, M.; Folke, C.; Schellnhuber, H.J.; et al. A safe operating space for humanity. *Nature* **2009**, *461*, 472–475. [[CrossRef](#)]
79. Polhemus, T.; Procter, L. *Fashion & Anti-Fashion: Exploring Adornment and Dress from an Anthropological Perspective*; Thames & Hudson: London, UK, 1978.
80. Zepf, S. Consumerism and identity: Some psychoanalytical considerations. *Int. Forum Psychoanal.* **2010**, *19*, 144–154. [[CrossRef](#)]
81. Klein, N. *No Logo*; Alfred, A., Ed.; Knopf Canada: Toronto, ON, Canada, 2000.

82. Cosme, I.; Santos, R.; O'Neill, D.W. Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals. *J. Clean. Prod.* **2017**, *149*, 321–334. [CrossRef]
83. Andreoni, V.; Galmarini, S. On the Increase of Social Capital in Degrowth Economy. *Procedia-Soc. Behav. Sci.* **2013**, *72*, 64–72. [CrossRef]
84. Kashdan, T.B.; Breen, W.E. Materialism and diminished well-being: Experiential avoidance as a mediating mechanism. *J. Soc. Clin. Psychol.* **2007**, *26*, 521–539. [CrossRef]
85. Chancellor, J.; Lyubomirsky, S. Happiness and thrift: When (spending) less is (hedonically) more. *J. Consum. Psychol.* **2011**, *21*, 131–138. [CrossRef]
86. Schmuck, P.; Kasser, T.; Ryan, R.M.; Kasser, T.I.M.; Ryan, M. Intrinsic and Extrinsic Goals: Their Structure and Relationship to Well-Being in German and U.S. College Students. *Soc. Indic. Res.* **2000**, *50*, 225–241. [CrossRef]
87. Richins, M.L.; Dawson, S. A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation. *J. Consum. Res.* **1992**, *19*, 303–316. [CrossRef]
88. Tilikidou, I.; Delistavrou, A. Pro-environmental purchasing behavior: The inhibiting influence of the materialistic values. In Proceedings of the 9th International Conference on Marketing and Development, Waterloo, ON, Canada, 2–4 August 2005.
89. Tam, K.P. Concepts and measures related to connection to nature: Similarities and differences. *J. Environ. Psychol.* **2013**, *34*, 64–78. [CrossRef]
90. Stern, P.C.; Kalof, L.; Dietz, T.; Guagnano, G.A. Values, Beliefs, and Proenvironmental Action: Attitude Formation Toward Emergent Attitude Objects. *J. Appl. Soc. Psychol.* **1995**, *25*, 1611–1636. [CrossRef]
91. Hosta, M.; Žabkar, V. Consumer Sustainability and Responsibility: Beyond Green and Ethical Consumption. *Mark.-Tržište* **2016**, *28*, 143–157. [CrossRef]
92. Tangney, J.P.; Baumeister, R.F.; Boone, A.L. High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *J. Personal.* **2004**, *72*, 271–324. [CrossRef]
93. Büchs, M.; Koch, M. Challenges for the degrowth transition: The debate about wellbeing. *Futures* **2019**, *105*, 155–165. [CrossRef]
94. Antonetti, P.; Maklan, S. Exploring Postconsumption Guilt and Pride in the Context of Sustainability. *Psychol. Mark.* **2014**, *31*, 717–735. [CrossRef]
95. Chatzidakis, A. Guilt and ethical choice in consumption: A psychoanalytic perspective. *Mark. Theory* **2015**, *15*, 79–93. [CrossRef]
96. Watson, D.; Palm, D. *Exports of Nordic Used Textiles: Fate, Benefits and Impacts*; Nordisk Ministerråd: Copenhagen K, Denmark, 2016; p. 32. Available online: www.norden.org/nordpub%0Ahttps://norden.diva-portal.org/smash/get/diva2:1058123/FULLTEXT01.pdf (accessed on 21 April 2021).
97. Nisbet, E.K.; Zelenski, J.M.; Murphy, S.A. The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environ. Behav.* **2009**, *41*, 715–740. [CrossRef]
98. Kaplan, S. Human nature and environmentally responsible behavior. *J. Soc. Issues* **2000**, *56*, 491–508. [CrossRef]
99. Han, H.; Hwang, J.; Lee, M.J.; Kim, J. Word-of-mouth, buying, and sacrifice intentions for eco-cruises: Exploring the function of norm activation and value-attitude-behavior. *Tour. Manag.* **2019**, *70*, 430–443. [CrossRef]
100. Elliott, R. The taste for green: The possibilities and dynamics of status differentiation through “green” consumption. *Poetics* **2013**, *41*, 294–322. [CrossRef]
101. Clayton, S.; Karazsia, B.T. Development and validation of a measure of climate change anxiety. *J. Environ. Psychol.* **2020**, *69*, 101434. [CrossRef]
102. Haseley, D. Climate change: Clinical considerations. *Int. J. Appl. Psychoanal. Stud.* **2019**, *16*, 109–115. [CrossRef]
103. Weintrobe, S. *Engaging With Climate: Psychoanalytic and Interdisciplinary Perspectives*; Routledge: London, UK, 2012.
104. Miller, J.R. Biodiversity conservation and the extinction of experience. *Trends Ecol. Evol.* **2005**, *20*, 430–434. [CrossRef] [PubMed]
105. Montada, L.; Kals, E. Perceived justice of ecological policy and proenvironmental commitments. *Soc. Justice Res.* **1995**, *8*, 305–327. [CrossRef]
106. Wang, J.; Wu, L. The impact of emotions on the intention of sustainable consumption choices: Evidence from a big city in an emerging country. *J. Clean. Prod.* **2016**, *126*, 325–336. [CrossRef]
107. Barthes, R. *The Fashion System*; University of California Press: Berkeley, CA, USA; Los Angeles, CA, USA, 1983.
108. Bahl, S.; Milne, G.R.; Ross, S.M.; Mick, D.G.; Grier, S.A.; Chugani, S.K.; Chan, S.S.; Gould, S.; Cho, Y.-N.; Dorsey, J.D. Mindfulness: The Transformative Potential for Consumer, Societal and Environmental Well-Being. *J. Public Policy Mark.* **2016**, *35*, 198–210. [CrossRef]
109. Park, H.J.; Dhandra, T.K. Relation between dispositional mindfulness and impulsive buying tendency: Role of trait emotional intelligence. *Personal. Individ. Differ.* **2017**, *105*, 208–212. [CrossRef]
110. Greenwald, A.G.; McGhee, D.E.; Schwartz, J.L.K. Measuring Individual Differences in Implicit Cognition: The Implicit Association Test Anthony. *J. Personal. Soc. Psychol.* **1998**, *74*, 1464–1480. [CrossRef]
111. Tang, Y.; Geng, L.; Schultz, P.W.; Zhou, K.; Xiang, P. The effects of mindful learning on pro-environmental behavior: A self-expansion perspective. *Conscious. Cogn.* **2017**, *51*, 140–148. [CrossRef] [PubMed]
112. Holbrook, M.B.; Hirschman, C. The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun. *J. Consum. Res.* **1982**, *9*, 132–140. [CrossRef]

113. Weilbacher, W.M. Point of view: Does advertising cause a hierarchy of effects? *J. Advert. Res.* **2001**, *41*, 19–26. [[CrossRef](#)]
114. Armstrong, C.M.J. Fashion and the Buddha: What Buddhist Economics and Mindfulness Have to Offer Sustainable Consumption. *Cloth. Text. Res. J.* **2021**, *39*, 91–105. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.