Happiness, altruism and the Prius effect: How do they influence consumer attitudes towards environmentally responsible clothing?

Abstract

Purpose – Academic research and consumer polls often report strong consumer support for environmentally responsible products, and yet the proportion of sales they account for is often comparatively small. This study seeks to address one of the purported reasons behind this 'attitude-behaviour gap' by measuring the influence of six relatively untested factors on consumer attitudes towards environmentally responsible clothing.

Design / methodology / approach –This study employed a consumer household sample. It also used a quantitative survey approach to collect its data and structural equation modelling to analyse it.

Findings – Of the six factors, four were found to have a significant influence on consumer attitudes: altruism, status enhancement, perceived consumer effectiveness and happiness.

Originality / value – Altruism, environmental concern, perceived consumer effectiveness and self-identity have consistently featured in other environmental contexts, but less so in the specific context of environmentally responsible clothing. Happiness and status enhancement have yet to appear in any study relating to the purchase of environmentally responsible products.

Key words Environmental responsibility, social responsibility, environmental concern.
Paper type Research paper

Introduction

The deterioration of the environment in the form of pollution, acid rain, deforestation, the depletion of the ozone layer and climate change serves as a serious threat to humanity (Akehurst et al., 2012; Corral-Verdugo et al., 2011). With carbon dioxide emissions increasing 100 times quicker than at any time during the past 800,000 years, scientists are now proposing a new epoch - aptly known as Anthropocene - to reflect humanity's impact on the planet (Pead, 2016).

Environmentally responsible marketing has been devised as a key means by which to address this crisis. Also referred to as *green marketing*, it seeks to satisfy human needs in a way that minimises any damage to the environment (Do Paco et al., 2013). A key goal of environmentally responsible marketing is to encourage consumers to use environmentally responsible products (ERPs). ERPs help protect the natural environment by using fewer natural resources and by generating less pollution and waste (Kang et al., 2013). However, while ERPs serve as a potentially vital solution, their effectiveness ultimately rests upon the extent to which they are utilised by consumers.

The basic assumption of consumer behaviour is that individuals consume to satisfy their own needs. However many consumers are also motivated by environmental concern and therefore seek to minimise their negative impact on the environment (Corral-Verdugo et al., 2011). This study refers to such consumers as being environmentally responsible. The notion of environmentally responsible consumers is important because worldwide action is required to counteract humanity's damaging impact on the environment (Mancha & Yoder, 2015). Whereas industry once received much of the blame for environmental problems, the consumption activities of private households are now recognised as also being a major contributor (Babcock, 2009). And yet such recognition has often failed to translate into consumer action. In fact, empirical research has consistently revealed that environmentally responsible consumers are in the clear minority (e.g. Awad, 2011; Gilg et al., 2005; Hustvedt

& Dickson, 2009; Moon et al., 2013). If ERP's are to achieve their environmental goals, their appeal must evolve beyond the niche to the mainstream (Ottman et al., 2006; Kang et al., 2013).

Recognising this, research has endeavoured to identify the motives that drive the purchase of ERPs (Do Paco et al., 2014). Whilst this topic has received significant academic interest, scholars continue to highlight the need for further research. Such calls typically revolve around the fact that research to date has tried to identify the antecedents of environmentally responsible behaviour (ERB) using only a limited set of variables (Do Paco et al., 2013; Mancha & Yoder, 2015; Urien & Kilbourne, 2011). The obvious problem with this is that the complex nature of human behaviour makes it highly unlikely that such a narrow focus could accurately predict such behaviour (Cottrell & Graefe, 1997; Dickson & Littrell, 1997). In fact, De Young (2000) went so far as to argue that there is *no* scientifically valid reason for doing so because multiple motives will typically influence *any* given behavior.

This is likely to be particularly true in the case of environmentally responsible clothing (ERC). ERC - also referred to as eco-friendly, green, organic and/or sustainable clothing – is clothing that seeks to minimise any negative impact on the environment by avoiding the use of toxic ingredients, and adopting efficient manufacturing processes that consume fewer resources (Maloney et al., 2014; Moon et al., 2013). Despite ongoing growth, sales of ERC still only account for a very small proportion of global sales (Yan et al., 2012). While there have been numerous studies relating to green marketing in general, comparatively little research has been undertaken in relation to ERC (Han & Chung, 2014; Kim et al., 2012B; Lee, 2011). As a result, research has yet to properly identify the motives that influence its purchase (Moon et al., 2015).

This study seeks to redress this knowledge gap via a focus on six psychographic constructs that could potentially influence attitudes towards ERC. The first four of these – altruism, environmental concern, perceived consumer effectiveness and self-identity – have consistently featured in other environmental contexts, but less so in the specific context of ERC. The two remaining motives – happiness and status enhancement - have, to the authours' best knowledge, yet to appear in any study relating to the purchase of ERPs. The rest of this paper is structured as follows. First a review of the literature provides insight into the nature of these six constructs and their potential influence on consumer attitudes. This is followed by a discussion of the methodology, the presentation of results and suggestions for further research.

Review of the literature

Altruism
Altruism can be defined as a selfless form of motivation (Powers & Hopkins, 2006) resulting in intentional and voluntary actions intended to benefit others (Corral-Verdugo et al., 2011), while incurring a cost to the self (Griskevicius et al., 2007). Such actions occur without the expectation of reward from *external* sources (Powers & Hopkins, 2006). The relevance of altruism to this study stems from the fact that because the environment is available to all people, one individual's impact on it can affect others. Purchasing ERC is therefore altruistic in that it offers a future-oriented outcome that benefits society as a whole (Kim & Choi, 2005; Kim, 2011; Lee & Holden, 1999).

Altruism has been found to influence environmental attitudes (Akehurst et al., 2012), the use of green electricity (Clark et al., 2003) and ERB in general (Straughan & Roberts, 1999). Dickson (2000) and Hustvedt and Dickson (2009) measured the influence of 'altruism' on the purchase of ERC and found its influence to be non-significant. It must be noted, however, that both these studies measured altruism in ways that were not entirely consistent with the manner in which academics typically conceptualise it. More specifically, Dickson (2000)

operationalised the construct in a way that equated 'altruism' with accepting lesser quality when buying ERC. As Hustvedt and Dickson (2009) later noted, the purchase of ERC need not necessarily involve such a trade-off. However there were also flaws in the way they measured the construct. By operationalising altruism in terms of *supporting pro-environmental organisations*, they failed to encapsulate its pure meaning (i.e. selfless, voluntary etc.). As such, there is a need to revisit its influence.

It has been proposed that an altruistic trait exists that makes some people more generous, helping and kind than others, and that an altruistic personality exists whereby altruistic behaviour could apply to a variety of contexts (Rushton et al., 1981). Those most likely to engage in altruistic behaviour have internalised a prosocial role and feel strongly that others expect them to continue in a manner consistent with that role (Finkelstien et al., 2005). This would indicate that because altruism has been found to influence consumers' attitude in a variety of other environmentally responsible contexts, it should also influence it in the context of ERC. The following hypothesis is therefore proposed:

Hypothesis 1: Altruism has a significant and positive influence on overall attitude towards ERC.

Environmental concern
Environmental concern (EC) is defined as an individual's general attitude centring on their affective (Chan, 2001) and cognitive concern for the ecosphere and any damage humans may be doing to it (Hustvedt & Dickson, 2009). Consumer levels of EC have steadily increased (Kim & Choi, 2005) resulting in it serving as one of the most commonly studied environmental constructs (Hustvedt & Dickson, 2009). Such a focus is not unwarranted. The success of green marketing is considered to be largely dependent on consumer attitudes towards the environment (Do Paco et al., 2014). Yet in spite of this, EC has often proven to be a poor predictor of ERB (Akehurst et al., 2012). For example, empirical research conducted in such contexts as green electricity (Ozaki, 2011) and recycled toilet paper (Guagnano, 2001) has found that it does not influence environmental attitudes or purchase behavior. Moreover, despite purported high levels of EC, it has often failed to translate into demand for ERPs (Cleveland et al., 2005). These two factors in combination have led many scholars to abandon it as a predictor of *specific* environmental behaviours (Bamberg, 2003).

There is however an alternative viewpoint. Dickson and Littrell (1996) argue that perceptions of need promote empathy and in turn, an increased likelihood of action. If so, EC can be expected to lead to more positive attitudes towards any product seeking to address the focus of that concern. There is an inherent logic to the notion that strong concerns over environmental problems should result in positive attitudes towards pro-environmental products. In support of such a notion, empirical research has found that EC influences a variety of pro-environmental behaviours (Clark et al., 2003; Cottrell & Graefe, 1997; Do Paco et al., 2013; Kim & Choi, 2005; Lee & Holden, 1999; Straughan & Roberts, 1999). For example, Ellen et al. (1991) tested the influence of EC on six different types of ERB and found that it influenced all six. Of specific interest to this study, research has also found that it influences purchase intentions for ERC (Kim et al., 2012) and consumer willingness to pay more for it (Lee, 2011). Based on these latter findings, the following hypothesis is proposed:

Hypothesis 2: Environmental concern has a significant and positive influence on overall attitude towards ERC.

Perceived consumer effectiveness
Perceived consumer effectiveness (PCE) refers to the extent to which an individual believes their efforts and actions can positively influence the outcome of a problem (Wesley et al., 2012). Hence, when applied in an ERB context, it refers to the extent to which a consumer is convinced that their pro-environmental behaviours will make a positive difference to the

environment (Tan & Lau, 2011). It therefore shares strong conceptual similarities with *environmental locus of control*, which Cleveland et al. (2005) define as the extent to which people believe they have the ability to affect pro-environmental outcomes through their own actions.

PCE serves as one of the most commonly utilised variables by which academics have sought to address the attitude-behaviour gap (Kang et al., 2013). Because each individual's contribution to environmental degradation is so small relative to that of an industrial polluter, it is often hard to convince any one individual that changing their behaviour will make a difference (Babcock, 2009). For this reason Cleveland et al. (2005) propose that the attitude-behaviour gap could be due to consumers believing they lack the necessary sense of empowerment to actually make a difference via the purchase of ERPs.

Environmental research into the influence of PCE has yielded contradictory results. This includes those studies that have found that PCE does *not* exert a significant influence over ERB (i.e. Kim, 2011; Maloney et al., 2014; Ozaki, 2011), and those that have reported mixed results. For example, Ellen et al. (1991) tested the influence of PCE on six different types of ERB and found that it only influenced three. Similarly, Lee and Holden (1999) found that PCE was a significant predictor of 'high cost' environmentally responsible behaviours such as carbon taxes and hybrid cars, but not 'low cost' ones such as recycling. Yet in spite of this, the balance of research indicates that PCE *does* influence environmental attitudes (Akehurst et al., 2012; Gilg et al., 2005; Kang et al., 2013) and behaviour (Kim & Choi, 2005; Kim et al., 2012; Straughan & Roberts, 1999; Tan & Lau, 2011). It is upon this latter body of evidence that the following hypothesis is proposed:

Hypothesis 3: Perceived consumer effectiveness has a significant and positive influence on overall attitude towards ERC.

Environmental self-identity
Self-identity refers to relatively enduring characteristics that people assign to themselves. It can therefore be thought of as a label that one uses to describe oneself (Hustvedt & Dickson, 2009). Environmental self-identity serves as an extension of self-identity, defining the extent to which a person sees themselves as someone who acts environmentally responsibly (Van Der Werff et al., 2013). As with some of the other variables utilised in this study, its full influence may have gone unrecognised due to academics referring to it by various other terms. For example, Kang et al. (2013) used the term *perceived personal relevance* to refer to an individual's belief that a certain behaviour is associated with their lifestyle, values and self-image. Similarly, Kashima et al. (2014) used the term *environmental striving* to describe the extent to which improving the natural environment is important to an individual, describes who they are and the extent to which they draw on the values, beliefs and norms associated with it.

The self comprises multiple identities that emerge from ongoing social interactions and the expectations of others. The more one identifies with a particular role, the more likely they are to internalise it and incorporate it into their self-concept. This identity begins to serve as an internal guide as the individual strives to behave in ways that are consistent with it. Caring about the environment therefore becomes not so much what one *does*, but rather, who one *is* and is recognised as *being* (Finkelstien et al., 2005). As such, ERB should derive from a person's notion of self and the way they define their relationship with the natural environment (Moon et al., 2013).

With few exceptions, research has provided empirical support for such a notion. In one such exception, Kashima et al (2014) found that environmental self-identity influenced green shopping and environmental activism but not respondents' willingness to reduce car usage. This suggests that its influence may be context specific. Such a notion is important, because

in the one ERC study that did measure its influence, Hustvedt and Dickson (2009) found that environmental self-identity did *not* differentiate users from non-users of ERC.

However the balance of research suggests that environmental self-identity does influence environmental attitudes (Kang et al., 2013; Mancha & Yoder, 2015) and behaviours (Sparks & Shepherd, 1992; Terry et al., 1999; Van Der Werff et al., 2013; 2014). In fact, Pelletier et al. (1998) and Whitmarsh and O'Neill (2010) both found that environmental self-identity influenced a wide variety of ERBs including the reuse of products, recycling, conserving energy, political activism, and reducing waste and car usage. Given the weight of evidence indicating that it does in fact influence ERB, the following hypothesis is proposed.

Hypothesis 4: Environmental self-identity has a significant and positive influence on overall attitude towards ERC.

Happiness
Happiness has been defined as the absence of depression, and the presence of a number of positive emotional and cognitive states (Joseph et al., 2004). It also denotes a measure of an individual's evaluation of their overall quality of life, and for this reason is often used interchangeably with such terms as *life satisfaction* (Abdel-Khalek, 2006) and *subjective well-being* (Welsch, 2009). Whilst previous research has focused on the relationship between happiness and pro-social behaviour, it has often done so from the opposite direction. More specifically, scholars have often been more interested in determining whether pro-social behaviour serves as a source of happiness. In this context, ERB has been found to influence happiness (Corral-Verdugo et al., 2011A) and overall well-being (Welsch & Kuehling, 2010).

However, there is also an important body of work demonstrating that happiness can influence the likelihood of prosocial behaviour. Scholars propose that happy people are more likely to act in a pro-social manner because they are more emotionally capable and have the sort of optimistic personality that fosters such behaviour (Anik et al., 2009; Wang & Graddy, 2008). Happy individuals often possess the sort of positive outlook that results in a focus on the needs of others and subsequently, more cooperative behaviour (Kasser & Ryan, 1996; Williams & Shiaw, 1999). In support of this, happiness has been found to influence the level of volunteerism (Krueger et al., 2001; Thoits & Hewitt, 2001), the likelihood of engaging in charitable behaviour (Anik et al., 2009; Liu & Aaker, 2008; Wang & Graddy, 2008) and the likelihood of performing prosocial behaviours at work (Williams & Shiaw, 1999). Given that happiness levels have been found to influence a variety of prosocial behaviours, and that ERC can be considered a prosocial product category, the following hypothesis is proposed:

Hypothesis 5: Happiness has a significant and positive influence on overall attitude towards ERC.

Status enhancement
Status enhancement is defined in this study as purchase behaviour that seeks to enhance the reputation of the purchaser and gain recognition from others. At first glance, it may appear to share close similarities with other constructs, such as *self-enhancement* (i.e. Kim, 2011; Urien & Kilbourne, 2011). However, whilst this latter motive is similar in that it too is driven by self-interest, its scope extends beyond that of status enhancement by incorporating power, wealth and influence. Based on its title, the construct *esteem enhancement* (Omoto & Snyder, 1995) would also appear to share close similarities with status enhancement, but based on the way it was actually operationalised (e.g. to escape stress in one's life, to feel less lonely, to feel needed etc.) it is more closely related to self-interest in general.

Status enhancement also shares some similarities with *subjective norms*. Subjective norms focus on the influence that significant others have on an individual with regard to performing specific behaviours. The more importance one assigns to the opinion of others and their perception of a certain action, the more likely the person is to engage in that behaviour (Maloney et al., 2014; Whitmarsh & O'Neill, 2010). As with status enhancement, the rewards of subjective norms can include enhanced reputation and the esteem of others (Babcock, 2009). However, because subjective norms refer to a person's perception of the extent to which significant others think they should perform a specific behaviour (Terry et al., 1999), it is best described in terms of *complying with* the expectations of others. Status enhancement, in contrast, specifically refers to trying to gain the *admiration* of others.

Status enhancement serves as a motive based on self-interest. Self-interest has traditionally been perceived as a *cause* of, rather than a *solution* to, environmental problems. This is due to the fact that it can result in the inefficient consumption of resources and the passing on of environmental problems to future generations (De Young, 2000). In seeming confirmation of this, research has found that self-enhancement motives are inversely related to ERB (Urien & Kilbourne, 2011).

However research also suggests that self-interest could, in fact, serve as a solution to environmental problems (De Young, 2000). Some academics are sceptical as to whether humans are truly capable of being altruistic, arguing instead that pro-social behaviour simply occurs due to ego-based and self-serving motives (Green & Webb, 1997). Altruism has been described as a no-cost behaviour because the altruist can in fact benefit from their actions in the form of improved social status and social recognition (Corral-Verdugo et al., 2011). Via their ERB, altruists advertise some desirable underlying quality about themselves that increases their prestige and social status (Hardy & Van Vugt, 2006). The success of the Prius car is regarded as an example of this, with its success attributed to its ability to cater to self-esteem needs (Ottman et al., 2006). When Prius owners have been surveyed about the main reasons for buying their cars, environmental conservation has often been found to be a far less salient motive than status enhancement (Griskevicius et al., 2010).

The need to belong is considered to be universal across cultures, and one way an individual can further their relational needs is by being prosocial (Lee & Shrum, 2012). Prosocial behaviour may reveal virtuous characteristics such as kindness, sympathy and helpfulness (Griskevicius et al., 2007) which in turn can inspire greater liking, appreciation and gratitude from others (Lyubomirsky et al., 2005). Buying ERPs can demonstrate to others that one is voluntarily willing and able to incur the cost of owning a product that benefits society and the environment. This in turn serves to enhance their status (Griskevicius et al., 2010). In fact, such is altruism's ability to enhance one's reputation, that individuals will often compete for status - a concept known as *competitive altruism* – by seeking to out-perform other altruists in terms of their level of pro-social behaviour (Griskevicius et al., 2010; Hardy & Van Vugt, 2006).

The primary focus of research on status enhancement has been in the field of costly signalling. Cost signalling theory portrays altruistic behaviour as a signal to others. In addition to signalling that a person is prosocial, altruism can also signal that one has the necessary economic resources to be able to give away such resources (Grafen, 1990). Costly signalling can take two forms, both of which are directly relevant to ERC. The first is the ability of prosocial behaviour to signal an altruist's wealth in the form of their ability to bear the additional cost of such behaviour (Griskevicius et al., 2010). This is particularly important in the case of ERC because it is typically more expensive than conventional clothing.

Its second form relates to conspicuous consumption. For many Western consumers, the role of clothing goes beyond functional needs to also satisfying social and self-esteem needs via

its ability to demonstrate social standing (Shaw et al., 2006). However while social status serves as a source of social power, it is also an unobservable quality that must be signalled in order to be effective (Boone, 1998). One way to display social standing is via the things we purchase (Griskevicius et al., 2007), and there are few more conspicuous purchase categories than the clothing we wear.

Whilst there has been a noticeable lack of research examining status enhancement in an ERC context, empirical support can be found in related fields. For example, the need for prestige and recognition has been identified as one of the key motives behind the performance of prosocial behaviours (Green & Webb, 1997). This would help explain why people become more prosocial the more public the altruistic behaviour is (Lacetera & Macis, 2010). Of particular relevance, Griskevicius et al. (2010) found that status motives influenced consumer desire for a variety of ERPs. In combination, these factors lead to the following hypothesis.

Hypothesis 6: Status enhancement has a significant and positive influence on overall attitude towards ERC.

Attitude influences intention
According to the proposed framework for this study (Figure 1), these six constructs help generate an overall attitude towards ERC. An overall attitude is primarily evaluative in nature, capturing the individual's overall assessment of the attitude object (Schiffman et al., 2005). It is central to the study of attitudes because it summarises consumers' predisposition to be favourable or unfavourable towards the attitude object (Assael, 1998), in this case, ERC. This overall evaluation then leads to behavioural intention, or the conative component of attitude (Evans et al., 2006). The notion that attitude influences behavioural intention stems from the logical assumption that a consumer's intention to perform some behaviour in relation to an attitude object should increase as their attitude towards it becomes more favourable (Engel et al., 1995). In support of this, studies have found that consumers' overall attitude towards ERC influences their purchase intention towards it (Han & Chung, 2014; Maloney et al., 2014). This leads to the following hypothesis:

Hypothesis 7: Overall attitude towards ERC positively influences their purchase intention towards it.

Figure 1: Theoretical framework for this study
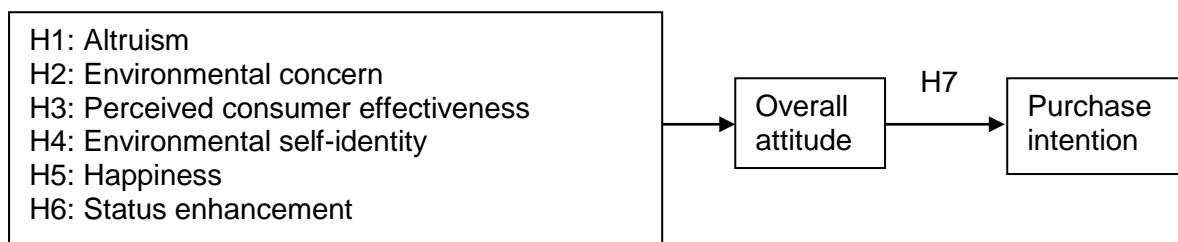
Methodology

Sample
Sampling refers to the process of taking any portion of a population as representative of that population. It is a vital research design consideration because the findings of any study are only valid to the extent that they accurately portray the attitudes and behaviour of the population under study (Kerlinger, 1986). Failure to meet this basic benchmark can result in an attitude-behaviour gap; a problem which is of particular concern in ERP-based studies. Whereas consumer polls consistently reveal that people rate protecting the environment as a

major priority (Babcock, 2009), this attitudes often fails to translate into actual behaviour, as evidenced by the fact that relatively few ERPs have been particularly successful (Do Paco et al., 2013). One view put forward to explain why such a gap often occurs in an ERP context is the widespread use of convenience sampling (Roberts, 1996), and in particular, an over-reliance on student samples (Antil, 1984).

A review of samples validates this criticism, with numerous subsequent studies having employed samples comprised entirely of university students (i.e. Awad, 2011, Bamberg, 2003; Corral-Verdugo et al., 2011; De Groot & Steg, 2010; Dono et al., 2010; Do Paco et al., 2013; 2014; Ellis et al., 2012; Griskevicius et al., 2010; Kim & Choi, 2005; Lee, 2011; Lee & Holden, 1999; Maloney et al., 2014; Mancha & Yoder, 2015; Schultz, 2000; Sonnenberg et al., 2014; Straughan & Roberts, 1999; Tan & Lau, 2011; Urien & Kilbourne, 2011; Van Der Werff et al., 2014; Wesley et al., 2012; Yan et al., 2012). Given some of the unique factors that set university students apart from consumers in general (e.g. they are typically younger, better educated and earn relatively less income) their widespread use as samples serves as a plausible explanation for the attitude-behaviour gap.

In order to address this, the sampling frame for this study was defined as adult consumers (i.e. aged 18 and over) residing within a regional city (approximate population: 70,000) located in the Australian state of Victoria. A self-administered survey was used for the purposes of data collection. A two-step method of geographic stratified sampling was used whereby both the neighbourhoods and the household starting point within each of those neighbourhoods were randomly selected. Once the starting point within each of these strata had been selected, every fourth household received a questionnaire. Of the 1500 questionnaires delivered in this way, 296 usable surveys were completed, resulting in an effective response rate of 19.7%.

An analysis of age, gender and education was used to determine the extent to which the sample could be regarded as an accurate representation of its population. For gender, females were found to be slightly over represented, accounting for 55% of respondents, whereas they account for just 51% of the population. For age, the sample closely mirrored the age distribution of its population for two of its four age categories (30-44 and 45-59). However, the 18-29 age category was slightly under-represented when compared to its population. Whereas approximately 18% of the adults residing in regional Victoria are aged 18-29, the corresponding figure for the sample was just 13%. Conversely, the 60-and-over category was over-represented, accounting for 35% of the sample, whereas the corresponding statistic for the population was 31% (Australian Bureau of Statistics, 2015).

There were also some disparities for education, though the exact extent of which are difficult to accurately gauge. Whereas the Australian Bureau of Statistics provides data on age and gender for regional Victoria, data on educational attainment is only available at a national level. Comparing the sample's characteristics with such data is problematic given that significant variations in education exist across Australia's various regions (Regional Policy Advisory Committee, 2013). Bearing this limitation in mind, when compared with the national average, the sample was found to be under-represented in terms of those with a university degree (18% versus 24%) and vocational qualification (18% versus 30%). Conversely, those with a high school qualification as their maximum level of educational attainment were over-represented (64% versus 46%) in the sample (Australian Bureau of Statistics, 2012).

Attitude context
In order to find a high correlation between attitude and behavior, the attitude has to be measured towards that specific behavior (Kollmuss & Agyeman, 2002). This requirement necessitates specifying an attitude context which then serves as a frame of reference for respondents. T-shirts were chosen as the attitude context for this study because they serve as a familiar clothing category for most consumers, and because, as a unisex fashion

category, their relevance is not limited by gender (Hustvedt & Bernard, 2010). This context was conveyed to respondents via a preamble that directly preceded the scale items measuring overall attitude. However, the preamble also served an additional purpose. ERC is also referred to by other such terms as 'eco-friendly', 'green', 'organic' and/or 'sustainable' clothing. This absence of any universally accepted term (Balderjahn et al., 2013) risked compromising the validity of the resulting data because respondents may interpret this *same* construct in *different* ways. To safeguard against this, the preamble was also used to define ERC for respondents, and to do so using descriptors adapted from existing scale items (i.e. Chan & Wong, 2012; Gam et al., 2014). This resulted in the following preamble:

Please imagine the following scenario. You are shopping for a new T-shirt and come across one that is labelled as 'environmentally-friendly'. Upon reading the shirt's label you discover that:
- *The T-shirt is made from natural materials (e.g. cotton).*
- *It was made without the use of pesticides.*
- *It was made in the most efficient way possible (e.g. using less water & electricity).*
- *The by-products from making it (e.g. dyes and chemicals) were not released into rivers/the ocean.*
- *It costs $30**

* Please note: This price makes it about 25% more expensive than other similar looking T-shirts (e.g. $24) that don't possess these same qualities.

In this context, can you please indicate the extent to which you agree or disagree with the following statements about your attitude towards this shirt?

Measures
Responses for all 8 constructs employed in this study were measured on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Seven of the eight constructs were measured using scales based on minor adaptations from existing scales. These were *altruism* (Green & Webb, 1997), *environmental concern* (Dunlap et al., 2000), *happiness* (Joseph et al., 2004), *perceived consumer effectiveness* (Kang et al., 2013, Wesley et al., 2012)*, self-identity* (Van Der Werff et al., 2013), *overall attitude* (Shen et al., 2012) and *purchase intention* (Kim et al., 2012). However, in the case of *status enhancement*, it was necessary to develop a new scale due to the original nature of the construct. Based on its conceptualisation as *purchase behaviour that seeks to enhance the reputation of the purchaser and gain recognition from others*, it was operationalised via the following four-item scale:
- I think a lot of people would respect me if I were to buy such a shirt.
- Buying such a shirt would be a good way to impress others who also care about the environment.
- I think I would gain a certain amount of prestige by owning such a shirt.
- Buying and wearing this shirt is likely to inspire admiration from others.

Analysis

Reliability and validity
All scales were subject to exploratory and confirmatory factor analysis. Exploratory factor analysis suggested that all scales have a unidimensional structure. This study used AMOSv20 to evaluate the final measurement model. The reliability of the various factors ranged from .87 to .96, indicating good internal consistency (Table 1). The study assessed convergent validity by computing the average variance extracted (AVE) scores, with the subsequent results showing that all were greater than .50, thereby demonstrating acceptable convergent validity. In addition, the AVE score for each construct was greater than its

correlation with the other constructs. As such, all constructs served as distinct measurements and achieved discriminant validity.

To test for the potential problem of common method bias, Harman's single-factor test and the common latent method were used. These two tests reported values of 36.0% and 34.8% respectively, thereby indicating that common method bias did not present a significant threat to the study.

Table 1: Internal consistency, square root of average variance extracted

Measurements	Internal Consistency	Validity							
		1	2	3	4	5	6	7	8
1 Altruism	.92	**.89**							
2 EC	.91	.70	**.88**						
3 PCE	.92	.78	.71	**.87**					
4 Self-identity	.93	.74	.74	.73	**.90**				
5 Happiness	.96	.29	.24	.33	.22	**.93**			
6 Status enhancement	.92	.74	.64	.73	.69	.34	**.88**		
7 Overall Attitude	.87	.74	.64	.76	.72	.42	.72	**.82**	
8 Purchase Intention	.92	.79	.58	.74	.71	.36	.73	.71	**.89**

The conceptual framework
Structural equation modeling was employed to test the conceptual framework assessing the proposed hypotheses. All measures of global fit indicate adequate fit (Table 2).

Table 2: Goodness of Fit Analysis

Goodness of Fit Measure	Result	Goodness of Fit Measure	Result
Model Fit		Model Comparison	
Chi-squared	467.335	Tucker-Lewis Index (TLI)	.96
Degrees of Freedom	268	Normed Fit Index (NFI)	.93
P-value	.000	Comparative Fit Index (CFI)	.97
Cmin/df	1.744		
Goodness of Fit Index	.87		
Adjusted Goodness of Fit	.84		
RMSEA	.06		

Table 3 presents the beta coefficients from the conceptual framework, along with the t-value and respective levels of significance. As postulated, *altruism, PCE, happiness* and *status enhancement* exert a significant influence over consumer attitudes towards ERC. As a result, H1 (β= .41, t = 4.28, p<.001), H3 (β= .21, t = 2.39, p<.01), H5 (β= .10, t = 2.56, p<.01) and H6 (β= .34, t = 5.22, p<.001) are supported. Analysis also revealed that the more positive the *overall attitude* toward ERC, the stronger the *purchase intention* (H7: β= .93, t = 12.73, p<.001). However, contrary to what was hypothesised, neither *EC* (H2: β= -.09, t = -1.31) nor *environmental self-identity* (H4: β= .06, t = .65) were found to influence *overall attitude.*

Table 3: Direct effect on the conceptual model

Hypothesis	Regression Coefficient (t-value)
H1: Altruism→ Overall attitude	.41***(4.28)
H2: EC→ Overall attitude	-.09(-1.31)
H3: PCE→ Overall attitude	.21**(2.39)
H4: Self-identity→Overall attitude	.06(.65)
H5: Happiness→ Overall attitude	.10**(2.56)
H6: Status enhancement→Overall attitude	.34***(5.22)
H7: Overall attitude→Purchase intention	.93***(123.54)

*=p<.05, **=p<.01, ***=p<.001

Discussion

Theoretical implications
This study sought to address the attitude-behaviour gap (as it relates to ERPs) by measuring the influence of six variables on consumer attitudes towards ERC. Of these six, the following four were found to have a significant influence on overall attitude: altruism, status enhancement, perceived consumer effectiveness and happiness. Overall attitude, in turn, was then found to exert a strong influence on consumers purchase intentions towards ERC.

This result confirms previous findings showing that multiple goals drive ERB (De Groot & Steg, 2010; Green & Webb, 1997; Hustvedt & Dickson, 2009; Pelletier et al., 1998; Steg et al., 2014). In other words, consumers buy ERC for different reasons. Moreover, the finding that altruism *and* status enhancement serve as this study's two most influential independent variables, is also consistent with the notion that some of the driving forces behind ERB can operate in apparent conflict with each other (Green & Webb, 1997; Hustvedt & Dickson, 2009; Steg et al., 2014). More specifically, the results of this study indicate that the purchase of ERC is almost as likely to occur as the result of self-interest as it is trying to protect the well-being of the environment.

In contrast to two previous studies, altruism was found to influence consumer attitudes towards ERC. The likely reason for this is the contrasting ways in which the construct was operationalised. When measured in terms of willingness to accept lesser quality (Dickson, 2000) and support for pro-environmental organisations (Hustvedt & Dickson, 2009), the influence of 'altruism' has been found to be non-significant. However, as per the results of this study, when operationalised in terms of intentional and voluntary actions intended to benefit others, it *does* influence attitude towards ERC. In doing so, it adds weight to the proposition that an altruistic personality exists whereby altruistic behaviour could apply to a variety of contexts (Rushton et al., 1981).

Promoting the consumption of ERPs is considered to be problematic for three reasons. According to Ottman et al. (2006), many ERPs have failed due to their singular focus on their environmental qualities rather than the broader set of benefits they have to offer. For this reason they propose that the successful marketing of ERPs must include educating consumers in a way that links their environmental benefits to other benefits. Secondly, the rational choice view of human nature portrays humans as self-interested, thereby rendering ERB as 'irrational' behaviour because there is no presumed direct personal benefit in behaving so (Wang & Graddy, 2008). And thirdly, ERB must compete with an overwhelming number of advertisements promoting consumptive actions as a means of enhancing status (Babcock, 2009). However based on the findings from this study, *status enhancement* via

the purchase of ERC serves as a potential 'solution' to each of these issues. This is because it not only offers an additional and direct personal benefit to consumers, it can also *increase* status via consumption behaviour that *reduces* environmental degradation.

PCE has served as one of the most commonly utilised variables in ERP-based studies (Kang et al., 2013). The results from this study vindicate its popularity, with PCE serving as the third strongest influence on consumer attitudes towards ERC. This is a significant finding because much of the previous research involving PCE had focused on ERB in general rather than ERC specifically. In the one exception, Maloney and colleagues (2014) found an insignificant relationship between PCE and attitude towards ERC. One possible explanation for the differing findings between that study and this current one is that the former employed a student sample.

While previous research has investigated the relationship between happiness and pro-social behaviour, it had often been in terms of the influence of the latter on the former (i.e. Corral-Verdugo et al., 2011; Welsch & Kuehling, 2010). Even though past research has also sought to establish whether happiness can influence the likelihood of prosocial behaviour, it often occurred in such unrelated contexts as volunteerism (Krueger et al., 2001), donating to charity (Anik et al., 2009) and performing prosocial work behaviours (Williams & Shiaw, 1999). For this reason, the finding that happiness influences attitude towards ERC serves as one of the more important findings stemming from this study.

In contrast to what was hypothesised, EC was found to have a non-significant influence on consumer attitudes towards ERC. One possible explanation for this stems from previous research showing that knowledge serves as an antecedent to EC (Bamberg, 2003). The hypothesis that EC influences attitudes towards ERC rested on the assumption that consumers are aware of the negative environmental impacts of the clothing industry *and* the means by which ERC can help address them. In the absence of these two conditions, there is no logical link between EC and ERC. Given that consumers' are largely unaware of the clothing industry's negative environmental impacts (Pookulangara & Shephard, 2013) it serves as a likely explanation as to why this hypothesis was not supported.

This finding is also important because it challenges the notion that the purchase of ERPs is best predicted by an individual's attitude towards the environment (i.e. Lee & Holden, 1999). As the results of this study indicate, this cannot automatically be assumed because there are multiple other variables at play. Moreover, ERB has been found to be context specific (Cleveland et al., 2005) so that a *general* pro-environmental attitude such as EC need not necessarily serve as an accurate predictor of something as *specific* as attitudes towards ERC (Shrum et al., 1994).

The other rejected hypothesis stemming from this study related to environmental self-identity. This hypothesis was proposed on the notion that ERB should derive from a person's self-perception and the way they define their relationship with the natural environment (Moon et al., 2013; Schultz, 2000). It is likely that it was not supported for much the same two reasons as those for EC: lack of knowledge and the application of a general construct to a specific context. In the case of the former, environmental self-identity operates by encouraging an individual to behave in ways that are consistent with their attitude towards the environment. If, however, an individual fails to associate clothing with its negative environmental impacts, the influence of environmental self-identity is less likely to be activated. This result is also consistent with the notion that the influence of environmental self-identity is context specific in that it influences some ERBs but not others (Kashima et al., 2014). So while it may be relevant to a variety of environmental contexts (Whitmarsh & O'Neill, 2010), consistent with the finding by Hustvedt and Dickson (2009), ERC is not one of them.

Practical implications

Scholars have noted that an attitude-behaviour gap exists when it comes to ERPs. When applied to the specific context of this study, this gap refers to the phenomenon whereby via research, respondents will often express a positive attitude towards an ERP such as ERC, and yet actual consumer purchase behaviour fails to reflect this. There are two commonly cited reasons for this gap. The first relates to the mismatch between attitudes and behaviour that naturally occurs when attitudes are measured from a sample (i.e. university students) that does not accurately represent the behaviour of the population under study (i.e. the wider consumer population). The second reason stems from the fact that not all potential determinants of consumer attitudes towards ERC have been identified and measured. This study sought to address the former concern by utilising a consumer sample and the latter by measuring consumer attitudes towards six relatively untested factors.

Altruism was found to have the strongest influence over consumer attitudes towards ERC. With altruism also having been found to be influential in several other socially responsible contexts, it provides support for the notion that an altruistic personality may exist (Rushton et al., 1981). This suggests that the predominant target market for ERC extends beyond those that are concerned about the environment specifically, to those that care about social causes in general.

The results of this study also suggest that consumers buy ERC in order to enhance their reputation and gain recognition from others. Therefore to cater to this motive, ERC garments must be easily recognisable. This would involve creating a brand name that is strongly associated with environmental responsibility, and whose brand marks (or other identifying features) are clearly visible on all garments and carry bags.

PCE served as the third strongest influence on consumer attitudes towards ERC. It refers to the extent to which a consumer believes that their pro-environmental behaviours will make a positive difference to the environment (Tan & Lau, 2011). Promotion and product labelling should therefore highlight, on a per-garment basis, the environmental damage the clothing industry causes. For example, by highlighting that it requires more than 2500 litres of water to produce a single conventional cotton T-shirt (Fletcher & Grose, 2012) and that ERC requires far less water, it highlights the positive difference that each purchase of ERC makes.

This study also found that happiness serves as a significant influence. Such a finding suggests that retail atmospherics can play a key role in facilitating the sale of ERC. Retail atmospherics can be defined as the conscious design of a store in order to create a buying environment that is conducive to emotional enhancement. It targets the main sensory channels of sight, sound and smell via the use of appealing colours, decorations, music and scents (Kotler, 1973). Based on the results of this study, using atmospherics to enhance the happiness levels of store patrons, should in turn, enhance their likelihood of buying ERC.

Of the six factors tested, environmental concern (EC) offered the strongest logical link with ERC, and yet it was found to have no influence. A likely explanation for this stems from previous research showing that consumers are often unaware of the negative environmental impacts of the clothing industry (Pookulangara & Shephard, 2013). This highlights the need to improve consumer understanding in this regard via promotion and product labelling.

Limitations and further research

One of the likely reasons for the attitude-behaviour gap is sampling error. While this study sought to address this via the use of a consumer sample (as opposed to a student sample), there were still some minor discrepancies between this study's sample and the population it was intended to represent. For example, those aged 18-29 were slightly under-represented in the sample, while those aged 60-or-over were slightly over-represented (Australian Bureau of Statistics, 2015). Taking into account the broad nature of the data used for the

purposes of cross-comparison (e.g. nationwide rather than specific to the region under study), those with a high school qualification as their maximum level of educational attainment are also likely to be over-represented in the sample.

The attitude-behaviour gap has also been attributed to the fact that research to date has tried to identify the antecedents of ERB using too few variables (Mancha & Yoder, 2015). This study sought to address this by measuring the influence of six variables that had yet to be significantly linked to ERC. The fact that four of these were found to be influential highlights that there are likely to be numerous other determinant factors that are yet to be identified. Further research is therefore necessary to identify what these factors are, and to measure their impact on consumer attitudes towards ERC.

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