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# CONSUMING BEYOND SURVIVAL: AN EVOLUTIONARY APPROACH TO SUSTAINABLE CONSUMPTION

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## ABSTRACT

This paper aims to further extend sustainable consumption research beyond value-based models for identifying behavioural intentions as these have met with mixed results. Considering the range of internal and external factors affecting choice, it looks to examine the role of an individual's status in consumption decisions as what we consume has been identified as an important element in how we manage our social position. Within evolutionary psychology, the individual is identified as a decision maker, motivated to manage their status by navigating social hierarchies in a strategic way and where the tactics that are available and most attractive are shaped through social norms and structures. What remains unclear is a full understanding of the relationship between strategies for navigating these hierarchies, the associated tactics and how and when they are used. The following work briefly explores current practice in promoting sustainable consumption and presents a conceptual framework for examining sustainable consumption as a means of increasing status. This paper concludes that status strategies embody a pivotal role on consumption, thus a better understanding of them is essential to promoting sustainable consumption. Examining the widespread culture of consumption from this perspective enhances the understanding of the increasing desire to consume as a means to signal status among peers and identifies possible behavioural interventions.

## 1 INTRODUCTION

Mounting evidence strongly links human consumption to increasing global temperatures and extreme variability in precipitation [1]. Efforts to reduce environmental damage from human consumption have explored new economic paradigms, such as a transition away from a linear model of production and consumption, as well as technological advances in production. Current scholarship largely accepts that existing technology and policies will not produce the significant and timely emissions reductions necessary to reach the IPCC suggested stabilisation level of greenhouse gases, a major contributor to current climate variability [2, 3]. Despite these efforts, reducing consumption has become an integral component in climate change mitigation and adaptation policy [4, 5, 6]. Policy makers, non-profit organisations, and marketing professionals alike, wish to communicate the importance of making lifestyle changes to overcome climate change issues, but knowledge of what effectively engages the public in making long-term lifestyle changes remains unclear [6, 7]. Thus, the field of marketing faces the challenge of re-focusing its strategies on sustainable production and consumption, while ensuring continued consumer value within the marketplace [6, 7].

## **2 OBJECTIVES**

While existing research in sustainable marketing research has explored broad research streams, ranging from communications, organisational strategies, policies and institutional reframing, many approaches to changing consumption have centred on value-based models [7, 8, 9, 10, 11, 12]. These models place a strong focus on attitudes and beliefs as means of predicting and encouraging pro-environmental behaviour, however increasing discourse on these models reveal mixed levels of confidence on their effectiveness in promoting sustainable consumption [13, 14]. This paper aims to extend sustainable consumption research beyond value-based models, such as the *Theory of Planned Behaviour* [15], value-beliefs-norms theory [9], or the values and frames model [11] for identifying behavioural intentions as these have met with mixed results; as illustrated by the continued rise in global greenhouse gas emissions and limited change in public policy [12]. Hargreaves [12] further indicates in a review of current value-based models, that despite the growing complexity of these models, their use has resulted in very little change in behaviours. For instance, a survey in the US, discussed by Griskevicius et al [25] indicates that while a majority of respondents have a strong willingness to engage in environmentally friendly behaviours, less than 10% actually do so. Considering the range of internal and external factors affecting choice, for instance attitudes, values and social norms, this conceptual piece aims to further explore the role of an individual's status in consumption decisions. This paper will first examine value-based models within sustainable marketing. Next it will present evolutionary psychology as a unified conceptual framework for exploring consumption as a status-driven behaviour. Within this framework, rooted in critical realism, the paper will then explain the relationship between status and sustainable consumption, where Dominance and Prestige status enhancing strategies may be used to influence consumption.

## **3 SUSTAINABLE MARKETING**

When applying sustainable marketing to general consumption, governments and non-governmental organisations alike face a more difficult challenge. Within marketing the consumption of goods is theorised to go beyond fulfilling basic needs of survival, it is viewed as a symbolic representation of the self, culture and ultimately status [17, 18, 19]. Thus, pursuing a reduction in consumption, ignoring the issue of economic growth and stability, can present a much more difficult challenge to the individual. Promoting a decrease in consumption no longer becomes solely an issue of comfort and quality of life, but of a perceived loss in identity, cultural meaning and status [18, 20, 21]. Putting theory into practice, sustainable marketing turned its focus on understanding intrinsic motivations for engaging in socially responsible behaviours such as pro-environmental behaviour [10]. Thus emerged within the literature studies on attitudes, beliefs in values and their influence on consumer behaviour. Several models have emerged, such as value-beliefs-norms theory [9] and the values and frames model [11]. Beyond these, one that has been well-favoured within sustainable marketing is the Theory of Planned Behaviour, developed by Ajzen [15]. The next section will now discuss the model as well as its central flaws as a model for encouraging sustainable consumption.

## **4 THEORY OF PLANNED BEHAVIOUR**

The Theory of Planned behaviour (TPB) [15] was developed in an effort to explain behavioural intentions and draws upon attitudes and normative influences. The Theory of Planned Behaviour is widely applied within research focused on ethical or sustainable consumption in an effort to explain, understand and predict consumer decisions [8, 13, 22]. For instance, research applying the TPB has been shown to effectively predict the adoption of water saving technologies and recycling behaviours, as well as behaviours related to

diet and exercise [22]. The model explores the influence of attitudes and subjective norms on behaviour, using a simple linear model which includes consideration of attitudes towards the behaviour, subjective norms and perceived behavioural control as key influences on behavioural intentions. Extant literature on the TPB implies attitudes have a greater influence on the degree to which the behaviour is carried out, compared to subjective norms [23]. Despite the impact of attitudes on behaviour, Carrington et al [8] show that stated intentions rarely translate into behaviour. Discrepancies among the results of empirical studies using TPB have prompted misconceptions of the predictive power of the model, and full understanding of behaviour, thus legitimising further exploration of individual differences in behavioural research. Among some of the items suggested to for further investigation include perceived resources, opportunities to engage in behaviour and ability to overcome obstacles will lead to an increase in an individual's perceived behavioural control (PBC) and possibly the predictive power of the TPB model [13].

Armitage and Connor [13] critique previous analyses on TBP studies and suggest the evidence of its effectiveness is inaccurate based largely on errors in sampling and scope. For instance, Ajzen's [cited in 13] meta-analysis exhibited average multiple correlations between attitude, subjective norms and PBC with intentions to be  $R = 0.71$  for 19 correlations. However as Armitage and Connor [13] point out, the analyses used limited data sets, including unpublished studies and only considered the direct antecedents behaviour and intentions. Beyond the issue of limited sample size, studies involving TPB often rely on self-reported responses on attitudes and subjective norms, which are known to be unreliable as individuals provide answers which they perceive to make them appear more pro-social [8, 13]. Beck and Ajzen [cited in 13] attempted to correct for self-presentation biases by including a social-desirability scale in their studies, however Armitage and Connor [13] found this to have very little effect on observed behaviour.

Further analysis from Armitage and Connor [13] demonstrate that self-efficacy is a greater predictor of behaviour compared to Perceived Behavioural Control (PBC). Ajzen [15] argues they are the same, however others, including Bandura [24] and Armitage and Connor [13], argue that self-efficacy is concerned more with cognitive perceptions of control based on internal factors, as opposed to changing attitudes and norms. Meanwhile, PBC is thought to be more concerned with external factors. Self-efficacy has been shown to play an important role in the decision to undertake behaviours [24], especially when individuals perceive themselves to be capable of dealing with the risks associated with a new behaviour. In the instance of adopting pro-environmental behaviours, self-efficacy would be an important factor to consider, one that many models such, as TPB does not fully address.

In response to the limitations of the TPB, Hards [14] argues for a transition away from value-based models, such as the TPB, value-beliefs-norms and values and from, which do not account for how these factors change over time, thus making it difficult to encourage long-term behaviour change. Hards [14] further criticises existing models that place the individual as either a decision maker or privy solely to social structures, yet that is not the position taken by these authors. In the instance of applying evolutionary psychology theory to behaviour change, as presented in this conceptual piece, the individual is a decision maker, where he or she makes decisions and develops strategies to fulfil certain adaptive functions, which are perceived to be non-conscious. Incorporating the notion from social practice theory that personal values and beliefs are often shaped through social structures, supports the argument that within the conceptual framework used here, the individual is a decision maker, motivated to navigate social hierarchies in a strategic way, where the tactics available and most attractive are shaped through social norms and structures.

Despite being designed as an open model, the TPB, and derivations of it, is criticised for not considering other factors that influence decision-making such as self-efficacy, perceived resources, and perceived

socioeconomic status. Users of the TPB have noted a gap between stated intentions and observed behaviours, termed the intention-behaviour gap and has proven to be a significant barrier to marketing sustainable consumption. The intention-behaviour gap refers to the discrepancy of stated intentions, especially in regards to ethical or sustainable behaviour, and actual behaviour [8]. Given that stated intentions do not correspond to actual behaviour, especially purchasing behaviour suggests that consumers are not truly as ethical as researchers perceive them to be. Carrington et al [8] suggest misconceptions regarding the the intention-behaviour gap are due to overstated intentions and inadequacy of existing models in capturing consumer decisions. Existing models fail to fully epitomise all the factors (internal as well as external) that influence behavioural decisions. Theory development in this area is still growing and largely relies on cognitive approaches, however as with previous models, these fail to include both internal and external factors that influence decision making. Thus, in addressing sustainable consumption concepts should not only move away from traditional marketing techniques and value-based models, but also consider internal and external factors that impact behavioural decisions.

One perspective that enables the development of a more holistic model of behaviour change is Evolutionary Psychology. Using evolutionary psychology as a conceptual framework has the potential for a greater designation of the internal and external factors involved in the decision making process. The key principles of Evolutionary Psychology are described in the following section, which considers both the internal and external factors of behaviour. From the evolutionary psychology perspective cognitive influences in behaviour are described as adaptive mechanisms for relative status designed to aid in navigating social hierarchies, which evolved as a vital element of survival [8, 25]. It is proposed here that adhering to a conceptual framework, such as evolutionary psychology, allows for greater predictability in intentions and, eventually, behaviour.

## **5 EVOLUTIONARY PSYCHOLOGY: A UNIVERSAL FRAMEWORK FOR UNDERSTANDING BEHAVIOUR**

Consumer behaviour research has managed to explore and gain understanding of consumer decisions at the proximal or discrete level, whereby a broad understanding of all behaviour is considered reductionistic [26, 27]. The proximal level describes how consumption fulfils a greater need than simply survival, along with identifying what behaviours have emerged from the marketplace yet there still exists an inability to identify and describe the why these behaviours have manifested in the way that they have at the ultimate level [19, 28, 29]. This is particularly critical when considering that consumer behaviour is often impulsive and irrational [30]. The dilemma of understanding consumer behaviour at the ultimate level has led to the rise in acceptance of evolutionary psychology for examining behaviour, where behavioural pathology is underpinned by both the physical and biological understanding of the world [26].

Evolutionary psychology has entered into the field of consumer research with the aim of establishing a unifying and rigorous framework for understanding the ultimate drivers of behaviour, however this has not gone without criticism. Much of the criticism is based on what many evolutionary psychologists describe as misconceptions and misunderstandings of the core epistemology [27, 31]. From the evolutionary psychology perspective individual inherent behaviour is determined to be neither wholly nature, nor wholly nurture [27, 32, 33]. Tooby and Cosmides [32] state that it is nature that allows for nurture. This view between the nature and nurture debate allows for Derksen [33] to argue that evolutionary psychology theories mediate between relativism and realism, thus allowing for acknowledgement of culture and socialisation as an influencing factor in behaviour, while evolution accounts for universal observations of behaviour [27]. Critical realists lean towards a realist ontology, yet adopt a more subjectivist view on epistemology, in that knowledge and

the production of knowledge occurs as a result of social practice [34, 35]. It is this mediation between nature and nurture that leads one to conclude that adopting a critical realist perspective to underpin the principles of evolutionary psychology reconciles many of the criticisms evolutionary psychology research faces.

## **6 THE EVOLUTIONARY PERSPECTIVE ON CONSUMPTION**

Despite the criticisms of Evolutionary Psychology, its key principles overcome the barriers experienced by using value-based models, such as the Theory of Planned Behaviour. From this perspective individual behavioural decisions are motivated by status, where the benefits associated with status increase survival [36]. The benefits associated with rank relate to the perception that a person of high rank has the ability to provide and care for mates and kin, has the ability to ward off potential enemies and has the ability to acquire resources necessary for survival when all others experience scarcity [21, 36]. In the instance of consumption and status, it is the possession of high resource goods, which serve as a signal of one's ability to incur costs, such as time, effort or money, which are difficult for other's to replicate. Signalling the ability to incur costs is described by Cost Signalling Theory and evolved as a response to the recurring social problem of status [19, 21, 37]. Demonstrating this ability to incur costs, especially through consumption compared to others grants greater access to mates, alliances and protection [19, 21, 25]. Hence, increasing levels of consumption, despite the environmental costs, provide short-term benefits to the individual.

The theory of cost signalling and a universal desire for status indicates an underlying adaptive function for status [21, 25]. Further, work within evolutionary psychology has explored the notion of utilising pro-environmental behaviour as a form of status signalling [21]. Given the costs associated with pro-environmental behaviour, the use of environmentally friendly products or the rejection of high resource products indicates the actor has the time, money or effort available to engage in this form of pro-social behaviour, where the reward for such a sacrifice results in higher social status [ 21, 38, 39].

## **7 STATUS STRATEGIES, COMPETITIVE CONSTRUCTS AND COPYING**

The literature identifies two strategies for status, Dominance and Prestige. These two strategies are described to have similar influence and effect, yet consist of distinctive and differing characteristics, thus they can be viewed as two distinct types of status [38, 40]. An individual exhibiting a Dominant status typically demonstrates assertive, competitive, coercive and aggressive behaviours [38, 40, 41]. A Prestige driven individual most often demonstrates behaviours that exhibit competence, knowledge, hard work and altruism [38, 40, 41]. An individual exhibiting a Prestige status is typically more well-liked, respected and copied, increasing their chances to form coalitions, attract and retain mates [25, 38, 40]. Conversely, Dominant individuals are often described as individuals that are feared and avoided by others within a peer group [40, 41]. Henrich and Gil-White [41] further differentiate the process of achieving status and the resulting status, in that an individual may use a Dominance strategy for achieving higher status but the end result could be perceived as Prestige.

The process of achieving status among a peer group underpins the issue of status acquisition. Cheng et al [42] suggests that individuals have the ability to compete for higher status under Prestige. However, when one starts to consider the process by which an individual acquires status, such as via competition or cooperation, it is difficult to reconcile the notion that an individual can compete via a Prestige strategy for status given that competition is linked to Dominance. The literature exhibits a clear gap in understanding this relationship between the process of status acquisition and either strategy for status. It is suggested humans have an inherent motive to compete for status, given that high status is rewarded with high resources

and resources are limited [36, 43, 44]. As resources are distributed among individuals of differing rank, competition for higher status drives behavioural decisions [25, 36, 45]. Russell and Fiske [43] suggest that competitive individuals are perceived to be inherently untrustworthy and cold, whereas individuals that cooperate are perceived as the opposite. Additionally, Buunk and Massar [46] state that competitors are often perceived as rivals, as they compete for resources. Individuals that resort to coercion, aggression or fighting via competition risk a loss in reputation or even death, whereas individuals that rely on more submissive tactics, live to fight another day [31]. This evidence contradicts the literature on Dominance and Prestige status in that individuals that compete seem to engender Dominance, not Prestige.

Unpacking these two strategies into more specific characteristics reveals four main underlying constructs in which an individual may utilise these strategies. From the literature these four constructs are identified here as follows: agonistic competition, which aligns itself with the more traditional definition of dominance; cooperative competition, a form of competition that utilises altruistically motivated tactics and adheres to the definition of social dominance [36, 41, 47]; coercive competition where an actor will utilise tactics that appear to be altruistic or cooperative, but are dishonest [38]; and lastly, copying, in which people copy the behaviour of a high status model [41]. Among these constructs there are a variety of tactics available to use and each may be used under either strategy for status. Tactics may include humour [48], conspicuous consumption [19, 21] or pro-environmental behaviours [21, 49].

What remains unclear within the literature is a full understanding of the relationship between status strategies, the constructs and the tactics. Evidence does indicate that both individual differences and environmental factors influence strategy decisions, while group norms may influence the specific tactic used [33, 45, 47, 50]. Additionally, the literature is unclear on where the distinction is between strategies or processes for acquiring for status and actual Dominance or Prestige once status is acquired. One needs to make a distinction between Dominance strategy for status and social dominance orientation. The social dominance theory rests on two main principles. The first is that 'domain-specific strategies for reasoning about social norms involving dominance hierarchies' have evolved within the human mind [31, p. 366]. The second principle is that these strategies are distinct from other types of reasoning strategies, such as mating strategies [31]. This theory intimates that humans have developed the ability to observe certain social cues and develop a strategy for navigating the social dominance hierarchy found among social groups [36]. Thus, humans have the ability to discern between two strategies for achieving higher social status and further decide on an appropriate tactic for achieving the goal of status, where any tactic may be utilised under either strategy for status. This ability or mechanism of the mind that allows an individual to navigate social situations developed to solve the problem of dominance hierarchies, therefore allowing a differentiation between the process of acquiring status and the benefits associated with it [31, 36].

## **8 DISCUSSION**

Incorporating the discussion on consumption and building upon the conceptual framework within Evolutionary psychology the concepts described here endeavour to understand *why* behaviour manifests itself as it does in today's world. From this perspective behaviour is the ultimate result of a mind that is a product of natural selection [28, 31]. It is the view of evolutionary psychologists that human consumption and behaviour is the culmination of the desirable traits of successful survivors [28, 31]. In the instance of promoting sustainable consumption, where increasing levels of consumption has been strongly linked to status, the evolutionary theory of cost signalling helps to explain why high resource displays of skills, time and effort have signalled status among many cultures over many centuries. Veblen stated that consumer's insatiable appetite stems from the inherent desire for status and emulation of others [cited in 51]. Individuals

of lower status often aim to emulate, or copy, those of higher status and will participate in higher levels of consumption [39, 51, 52]. Veblen thought, “human behaviour - and consequently consumer behaviour - is produced via the interaction of instinctual aspects of individual and institutional forces, the interplay between nature and nurture, mind and environment” [53, pg. 735]. The ability to signal status through consumption ultimately augments behaviour [51] and it is this social behaviour that has led to overconsumption and the present climate issues, where consumer value is a direct result of status signalling [25].

Examining consumer behaviour from an evolutionary perspective demonstrates that the motivation to consume, especially at unsustainable levels is driven by the desire for relative status, where the goods we consume signal our status [20, 25]. Thus, we have a desire to not only 'keep up with the Joneses'; we want to appear to be of slightly higher status than the 'Joneses' [25, 52]. This drive to appear of higher status has led to increasing levels of consumption of natural resources, contributing to the current climate issues. However, evidence demonstrates that conspicuous consumption is not the only strategy for signalling increasing status. It has been suggested that pro-social behaviour, such as conspicuous displays of pro-environmental behaviour, could be an effective strategy for increasing one's status [21, 38].

This conceptual model presented in this paper identifies behavioural interventions in the decision making process that transition away from value-based models used within sustainable consumption research. The paper concludes that in order to promote sustainable consumption, status strategies must be understood as these represent a fundamental influence on consumption and that sustainability research must continue to transition away from value-based models to adopt a more holistic approach in identifying behavioural interventions. Examining the widespread culture of consumption from this perspective enhances the understanding of the increasing desire to consume as a means to signal status among peers and identifies possible behavioural interventions.

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