

Consumer Guilt Proneness Scale – assessing individual differences in responses to transgressive consumption situations

Abstract

Feeling or anticipating guilt associated with consumption situations may lead consumers to adjust their behaviors to avoid those unpleasant feelings and better conform to their personal, moral, and social standards. The experience of guilt regarding a consumption situation is influenced by both contextual factors, including marketing communications, and personal traits, namely the individual's proneness to feel guilt related to consumption. While research has examined the influence of contextual variables on guilt, the individual predisposition to feel guilt associated with consumption has received little attention. Understanding individual consumer guilt proneness can assist managers in customizing strategies to diverse guilt responses: recognizing varying susceptibility to guilt enables personalized approaches across the consumer journey, fostering empathetic managerial actions. This understanding can significantly impact consumer satisfaction, loyalty, and the success of marketing strategies.

This study conceptualises and proposes a measure of *consumer guilt proneness*, the individual tendency to feel guilt regarding transgressive consumption situations. To define the conceptual domain, a literature review is complemented with a qualitative study. Five dimensions corresponding to sources of guilt (health, extravagance, social influence, misevaluation, and ethics and sustainability) create the initial pool of items. Exploratory and confirmatory factor analyses corroborate the five-factor measurement model. The final scale demonstrates adequate convergent, discriminant, and nomological validity. Finally, the instrument is cross-culturally validated in three countries – Portugal, Poland, and Brazil – which not only strengthens the evidence of its validity and reliability but also lends credibility

to its broader application in diverse cultural environments, particularly within Western cultures.

Keywords: consumer guilt proneness; guilt as a trait; consumer emotions; scale validation

Declarations of interest: none.

INTRODUCTION

Emotions have long been a key area of research in psychology and neuroscience. Previous studies showed that guilt has replaced fear as a dominant human emotion (Hesz & Neophytou, 2009). Guilt arises when individuals are unable to regulate their behavior toward a long-term goal and give in to short-term temptations instead (Hofmann, Reinecke, & Meier, 2017). Guilt can arise from having behaved incorrectly in a range of circumstances such as accepting an illicit drug, failing to take a specific course of action, etc. But it can also arise in numerous consumption situations, from extreme ones such as addiction (Snoek et al., 2021), overeating (Ruddock & Hardman, 2018) or bingeing (Blythin et al., 2018), to more common ones such as extravagance (Lee-Wingate & Corfman, 2010) or media usage that conflicts with primary goals such as work tasks (Hofmann et al., 2017).

An examination of extant studies on marketing and consumer behavior shows that guilt is relevant to the understanding of a variety of consumption-related decisions (Basil, Ridgway & Basil, 2008; Coulter & Pinto, 1995; Dahl, et al, 2003; Duke & Amir, 2019; Han, Duhachek, & Agrawal, 2014; Huhmann & Brotherton, 1997). Lascu (1991) presented one of the first definitions of consumer guilt, as an emotion triggered by the anxiety a consumer experiences upon the cognition that they are transgressing a moral, social, or ethical principle, through either a purchase that violates that principle or a non-purchase of something prescribed by moral, societal, or ethical standards. Lascu also drew attention to the relevance of studying individual differences regarding people's tendencies to experience consumption-related guilt. Despite the fact that consumer behavior results from the interplay between both external factors and individual consumer characteristics, when it comes to consumer guilt, the dominant research perspective has centred on the understanding of how external factors,

such as the context and characteristics of marketing communication (e.g., Allard & White, 2015; Antonetti & Maklan, 2014; Baek & Yoon, 2017; Bennett, 1998; Chang, 2011; Coleman et al., 2019; Cotte et al., 2005; Duhachek et al., 2012; Prayag & Soscia, 2016) and the type of consumption situation (e.g., Dahl, Honea, & Manchanda, 2005; Saintives & Lunardo, 2016; Theotokis & Manganari, 2015), affect the onset of guilt, and the consequent cognitive and behavioral responses (Antonetti & Baines, 2015). In contrast, individual factors, with some exceptions (Basil et al., 2008; Fitzmaurice, 2008; Hanks & Mattila, 2014; Kayal et al., 2017; Kim & Johnson, 2013; Steenhaut & Van Kenhove, 2006), have been disregarded in research into consumer guilt. Very little research effort has been devoted to the analysis of how individual characteristics, and specifically guilt proneness, influence consumption-related attitudes and behaviors, such as reactions to advertising and decision-making (Antonetti & Baines, 2015; Lascu, 1991).

Following this line of research entails the use of valid measures of consumer guilt proneness which we, here, define as the individual predisposition to experience negative feelings of wrongdoing about consumption behaviors that violate personal, social, or moral standards. Though psychology research has produced validated instruments for assessing an individual's general predisposition to feel guilty, i.e., guilt as a trait (e.g., Cohen et al., 2011; Tangney, 1990), the idiosyncrasies of guilt in the scope of consumption, highlighted by extant research, indicate the need for a context-specific measure. In fact, when considering the most prominent measures of (general) guilt proneness, like Guilt and Shame Proneness (GASP) (Cohen et al., 2011) and Test of Self-Conscious Affect (TOSCA) (Tangney, 1995), it becomes evident that they predominantly focus on guilt resulting from actions negatively affecting others. On the other hand, existing literature in the context of consumption (e.g.,

Burnett & Lunsford, 1994; Dahl et al., 2003; Dedeoğlu & Kazançoğlu, 2010) also strongly associates the concept of guilt with behaviors with adverse consequences for oneself (e.g., guilt associated with impulsive buying, overspending, unhealthy consumption), which suggests conventional measures of guilt proneness may not provide a fully encompassing evaluation of guilt proneness in the context of consumption. Studies have provided the first steps for the conceptualisation of consumer guilt proneness, and for the creation of an instrument by which to appraise it, with Burnett & Lunsford's (1994) work standing out as the most noteworthy example. However, there is no published evidence of a proper validation process for the instrument originally developed by Burnett & Lunsford (1994). Attempts to use it in further studies have also demonstrated its poor internal consistency and limitations regarding construct reliability (Silva & Martins, 2017). Hence, so far, a definitive instrument has not been created and subjected to validation. The present study intends to fill this gap by providing a comprehensive examination of the construct of consumer guilt as a trait – hereafter referred as *consumer guilt proneness* (CGP) – and by proposing a thoroughly validated scale to assess it. Besides scale reliability and validity, generalisability is also examined through a cross-cultural comparison across three different countries, namely Portugal, Brazil, and Poland.

Besides the academic interest of such scale, this measure holds importance in guiding managerial decisions in consumption-related contexts. Understanding the guilt proneness profile of target consumers – specifically by recognizing the consumption contexts in which they are more likely to experience guilt – allows companies to proactively address and mitigate consumer guilt across the various points of the consumer journey.

THEORETICAL FOUNDATIONS

Guilt

Guilt is an evaluative self-conscious emotion that implies a self-evaluation against one's own standards. Such emotions (besides guilt, also shame, pride, and embarrassment make part of this category) differ from basic or primary emotions, such as fear, anger, pleasure, or joy, as they entail the cognitive ability to reflect on the self in our interactions with others, as well as the incorporation of rules and standards and the comparison of individual actions with them (Lewis, 1995). Therefore, evaluative self-conscious emotions, of which guilt is one, motivate adherence to social norms and personal standards, driving individuals to behave in moral, socially appropriate ways in their social interactions and intimate relationships (Baumeister et al., 1994; Estrada-Hollenbeck & Heatherton, 1998; Tangney, 1995).

Guilt is defined as an individual's unpleasant dysphoric feeling associated with the recognition that they have violated a personally relevant moral or social standard that may have both adaptive and maladaptive consequences (Kugler & Jones, 1992). It is mainly a functional emotion, as it motivates the individual to alleviate those feelings by inhibiting non-normative behaviors or, in the event of transgression, repairing them, adjusting their actions to reflect their personal values and goals (Lewis, 1995; Tangney et al., 2005).

Literature from psychological sciences has distinguished guilt driven by inner values (intrapsychic or deontological guilt) from guilt driven by interpersonal situations (interpersonal or altruistic guilt; Basile et al., 2011; Carnì et al., 2013), a distinction for which a neurobiological substrate has been recently found (Basile et al., 2011). In the first perspective, guilt arises from the conflict between moral authority rules and values that we

have learned and introjected since the early stages of our behaviors. In the second perspective, which is dominant in the literature (Tangney, 1995; Zeelenberg & Breugelmans, 2008), guilt results from the awareness of having caused unjustified harm to another.

Guilt as a state and guilt as a trait

Guilt may designate both an episodic emotion – guilt as a state – and a personality disposition – guilt as a trait (Cohen et al., 2011; Lascu, 1991; Mosher, 1979; Tangney & Dearing, 2002). As a state, guilt refers to a temporary unpleasant emotional experience that is directly connected to a particular behavior or action (Kugler & Jones, 1992). It implies that the individual is currently feeling guilty due to something they have done that violates internalised personal or social moral standards. In the context of consumption, the experience of guilt is triggered by transgressive consumption-related decisions or behaviors. The experience of guilt generally manifests in temporary feelings of tension, anger, disgust, self-blame, and regret in relation to the source of guilt (Baumeister et al., 1994; Izard, 1977), and is influenced by the timing in relation to the transgressive action. If experienced in response to an overt act that contradicts one's personal standards – for instance, after eating a highly caloric cake – guilt is known as reactive guilt. If experienced while one is just contemplating a transgression, it is known as anticipatory guilt (Rawlings, 1970), a less intense and less negative state than reactive guilt (Giner-Sorolla, 2001; Labarge & Godek, 2006), that signals that a particular event or action is unacceptable and should be interrupted or avoided (Steenhaut & Van Kenhove, 2006). In response to the unpleasant experience of guilt, individuals feel the need to reduce it to tolerable levels through either self-control, if the transgression has not yet occurred, or compensatory and reparative behaviors such as

confessions, apologies, and undoing the consequences of the behavior (Dahl et al., 2005; Labarge & Godek, 2006; Tangney & Dearing, 2002). Guilt as a state has been frequently used as an outcome variable in consumer behavior research, with the main purpose of understanding how external factors, such as marketing communications or product characteristics, impact the experience of guilt or as a variable that mediates the impact of those external factors on consumer decisions and behaviors (e.g., Allard & White, 2015; Antonetti & Maklan, 2014; Dahl et al., 2005; Saintives & Lunardo, 2016; Theotokis & Manganari, 2015). Measures of guilt as a state normally involve participants rating a set of descriptive adjectives to express their feelings of guilt in a particular imagined or real situation, presented by the researcher.

A trait guilt is more enduring than a state guilt and is commonly referred to as *guilt proneness*, defined in the psychology literature as “a personality trait indicative of a predisposition to experience negative feelings about personal wrongdoing, even when the wrongdoing is private” (Cohen et al., 2012, p. 335). Individual guilt proneness (trait guilt) influences guilt experiences (state guilt), in such a way that, in similar scenarios of transgression, someone with a high level of guilt proneness has a higher predisposition to experience negative feelings. More specifically, extant research shows that individuals with higher guilt proneness are more inclined to anticipate feelings of guilt (anticipatory guilt) before engaging in transgressive acts, thus reducing the likelihood of engaging in unethical behavior (Cohen et al., 2012; Tangney & Dearing, 2002). In research, guilt proneness is typically studied as a predictor of ethical, prosocial, or pro-organizational attitudes and behaviors (e.g., Flynn & Schaumberg, 2012; Mills & Groening, 2021), or as a factor that moderates the influence of specific predictors on those attitudes and behaviors (e.g., Mazzone

et al., 2016). The most prominent instruments for assessing guilt proneness are situation-based (Cohen et al., 2011; Tangney, 1995). Within these valuations, participants are tasked with rating their likelihood of experiencing guilt in various transgressive situations. These situations cover a broad spectrum of life's aspects. However, their focus tends to revolve around scenarios linked to interpersonal guilt, with limited exploration of consumption-related situations. This indicates the potential need for a context-specific measure of consumer guilt proneness, which is currently absent among the various validated measures used to evaluate consumer traits and individual differences (Bearden, Netemeyer, & Haws, 2011).

Guilt proneness in the Context of Self-Conscious Emotions

Evidence suggests that shame and guilt can be elicited by the same kind of fault (Miceli & Castelfranchi, 2018), and share similar self-evaluative and remorse components. However, the elicitation of shame is more associated with publicly exposed faults than guilt (Lewis, 1995; Smith et al., 2002). Simultaneously, shame is more often triggered by faults for which the person cannot be held accountable than guilt, that is mostly elicited by transgressions for which the person is held responsible (Sabini & Silver, 1997). Finally, the self-versus-behavior view of shame and guilt (Tangney & Dearing, 2002) states that what mostly matters in the distinction between them is whether the transgression is ascribed to the self ("I am a bad person") or circumscribed to that particular behavior ("I did something wrong"). While a guilt-prone individuals have the tendency to appraise transgressive behaviors negatively, shame-prone individuals tend to appraise themselves negatively (Tangney & Dearing, 2002), making guilt a more adaptative emotion than shame. Whereas guilt seems to mainly elicit

future self-regulation and positive behaviors (Basil et al., 2008), making the individual prone to correct the behavior and/or avoid the wrongdoing, shame is often a trigger of self-defensive responses (Agrawal & Duhachek, 2010; Tangney et al., 2005). Embarrassment, which is sometimes seen as a weaker form of shame, seems to have particularities that make it clearly distinctive from both shame and guilt. Differently from shame and guilt, embarrassment is less focused on self-judgement and more on others' judgement of the situation (e.g., "they think I am awkward"). These judgements are seen as more benign than those about situations that trigger guilt and shame, to the point that they may even be fun for the audience (Tangney et al., 2005).

Guilt has been also compared to regret – the aversive cognitive and emotional state felt when we realise or imagine that our current situation could be better, if we had decided differently (Zeelenberg, 1999). In fact, research indicates that the experience of guilt implies feelings of regret (e.g. Dahl et al., 2005; Lascu, 1991), so guilt and regret tend to co-occur (Zeelenberg et al., 1998). Nonetheless, research has shown that individuals report similar levels of regret in situations of interpersonal and intrapersonal harm, while guilt is primarily reported in situations of interpersonal harm, i.e. damage to others (Berndsen, et al., 2004; Zeelenberg & Breugelmans, 2008).

Consumer Guilt Idiosyncrasies

Burnett and Lunsford (1994) were among the first researchers who attempted to conceptualise consumer guilt, having identified four types of consumer guilt based on the distinct circumstances that trigger that emotion – *ethics and sustainability guilt*, *moral guilt*,

health guilt, and *financial guilt*. Later, Dahl et al. (2003) explored the nature of guilt in consumption contexts and concluded that consumer guilt is mainly triggered by three types of circumstances: (a) *guilt related to others* (perceiving that a consumption behavior has a negative impact on other close or distant persons); (b) *guilt related to societal standards* (triggered by the perceived violation of standards for appropriate consumption behavior in a given context); and (c) *guilt related to oneself* (violation of standards that consumers have set for themselves). Interestingly, Dahl et al. (2003) found that half of their participants chose to report a situation of guilt related to themselves. In a subsequent, similar study, Dedeoğlu and Kazançoğlu (2010) also found that situations of interpersonal guilt and guilt due to the violation of societal standards were reported much less frequently than guilt related to oneself.

This strong emphasis on the self appears to be one of the key differentiators of guilt in the context of consumption. The large volume of published work on topics such as impulsive buying, and hedonic and unhealthy consumption, in which damage to others is not central in triggering guilt (interpersonal guilt) corroborate this claim. Marketing communications practices also seem to endorse that consumer guilt is heavily self-centred. The use of the term “guilt-free” is commonly associated with products that are expected to create damage to the consumer themselves (rather than to others). Nevertheless, even though literature states that guilt may also emerge without damage (or the perspective of damage) to others (Carnì et al., 2013), the empirical research of interpersonal guilt – guilt arising from provoking harm to others – has been dominant in psychological sciences. Consistent with this is the fact that existing measures of guilt proneness are mostly or exclusively focused on guilt derived from behaviors that may have a damaging effect on other people (Cohen et al.,

2012; Tangney 1990). Hence, we believe that a context-specific instrument to assess CGP is needed to encompass the whole domain of the concept of guilt in consumption contexts, by capturing its unique nuances. To develop such a scale, we relied on well-established processes for the creation of psychometric measures (DeVellis, 2016; Gerbing & Anderson, 1988; Mackenzie et al., 2011; Netemeyer et al., 2003; Nunnally & Bernstein, 1994), as displayed in Table 1.

Table 1 - *Phases of Scale Development*

Phase	Procedure	Sample	
(1) Definition of conceptual domain of consumer guilt proneness	Literature review Focus groups Content analysis and categorisation Revealing new categories Concept definitions Generation of initial set of items Content and face validity analysis	N = 40 (samples 1 & 2) 55% females; 45% males Age: mean = 36.3; SD = 11.2 7.5% high school degree; 70% college degree; 22.5% graduate degree	
(2) Preliminary scale development (pilot study)	Preliminary scale administration (43 items) Assessment of dimensionality through exploratory factor analysis (EFA) Iterative process of item deletion Assessment of internal consistency using Cronbach's alpha	N = 380 (sample 3) 64% females; 36% males Age: mean = 29.9; SD = 12.2 2% less than high school; 12% high school degree; 71% college degree; 15% graduate degree	
(2) Scale purification	Administration of a parsimonious scale (27 items) Confirmatory factor analysis (CFA) Iterative process of item elimination to improve model fit Assessment of reliability and construct validity (convergent and discriminant)	N = 420 (sample 4) 55% females; 45% males Age: mean = 29.4; SD = 10.1 1% less than high school; 15% high school degree; 47% college degree; 38% graduate degree	
(3) Final scale validation - test-retest reliability and nomological validity	Administration of final scale (18 items) to a Portuguese sample Replication of CFA Reassessment of reliability and convergent and discriminant validity Nomological validity analysis	Test N = 493 (sample 5) 62% female; 38% male Age: mean = 37.7; SD = 18.2 8% high school degree; 45% college degree; 47% graduate degree	Retest N = 116 (sample 6) 64% female; 36% male Age: mean = 37.7; SD = 18.2 7% high school degree; 41% college degree; 52% graduate degree

(4) Cross-cultural validation	Administration of final scale (18 items) to a Polish and a Brazilian sample CFA, reliability, and validity assessment in each sample Evaluation of cross-country measurement invariance Assessment of cross-country latent mean differences	Portugal N = 262 (sample 7) 57% females; 43% males Age: mean = 33.2; SD = 15.5 3% less than high school; 18% high school degree; 52% college degree; 27% graduate degree	Poland N = 203 (sample 8) 68% females; 32% males Age: mean = 33.2; SD = 13.1 29% high school degree; 70% higher education degree	Brazil N = 213 (sample 9) 58% females; 42% males Age: mean = 35.6; SD = 12.1 9% high school degree; 38% college degree; 53% graduate degree
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To fully develop and validate the scale we have used nine different samples from non-English countries. Thus, to reduce the potential sample bias that could occur while using the English questionnaire, we used forward and backward translations of our items. We have followed the procedure of parallel translation recommended by Malhotra, Agarwal, and Peterson (1996) which is recommended when the usage of the items in an international context is employed.

PHASE 1: CONCEPTUAL DOMAIN OF CONSUMER GUILT PRONENESS

The first step involved the definition of the focal construct domain, which consists of carefully specifying the construct's nature and its conceptual theme in unambiguous terms and consistent with prior research (Mackenzie et al., 2011, p. 298).

Methodology

The first phase of scale development entailed a comprehensive review of previous theoretical and empirical research, combined with an exploratory qualitative study, which entailed the use of two methods of group-based data collection: an online asynchronous discussion group (sample 1), and two face-to-face focus groups (sample 2). First, an online forum was created

and kept active for two weeks. An email invitation to participate in the forum was sent to a group of informants consisting of professionals and academics with a manifest interest in consumption issues. The moderator fostered a discussion concerning consumption-related guilt, asking the participants about situations that might give rise to guilt. A total of 28 informants participated, all of whom were responsible for decision-making in their households and belonged to the online forum. Sample 1 included researchers and marketing managers with a specific interest in the topic, as well as common consumers. The next step involved two face-to-face focus groups (Onwuegbuzie et al., 2009) of an hour and a half each. Each focus group included six participants (sample 2) whose selection was based on purposive sampling, including both experts and common consumers, of different ages. Participants were asked broad questions regarding their own views of consumption-related guilt, including: “In your opinion, what causes consumption-related guilt?” and “Give examples of consumption situations that made you feel guilty and explain why you felt guilty”. Each focus group interview was recorded and then transcribed. To analyse data resulting from both the online and face-to-face discussion groups, we carried out thematic analysis (Miles & Huberman, 1994), which involved coding and categorising the data for emerging patterns and themes, and applying a constant comparison approach (Charmaz, 2000).

Findings

Building particularly on the definition of general guilt proneness provided by Cohen et al. (2012), we define consumer guilt proneness (CGP) as an individual trait indicative of a predisposition to experience negative feelings of guilt about individual consumption behaviors that violate personal, social, or moral standards, regardless of whether

interpersonal damage is generated. Hence, in light of the trait theory of personality, CGP may be considered as a *secondary trait*. Secondary traits (in contrast to central traits) are specific and situational characteristics that do not define an individual's core personality but can manifest in particular circumstances or contexts (Allport, 1961). Indeed, CGP is specific to consumer choices and does not necessarily reflect a person's overall personality or disposition in all aspects of life, as central traits do.

Literature has suggested that consumer guilt should be considered not as a unidimensional but rather as a multidimensional construct (Burnett & Lunsford, 1994; Dahl et al. 2003). When the focal construct is multidimensional, defining its conceptual domain implies the identification and conceptualisation of its sub-dimensions. Despite the existence of more than one model, these dimensions mostly concern distinct sorts of guilt, classified according to the transgressive consumption that triggers the painful feelings. The analysis of participants' claims partly corroborated previous conceptual frameworks (Burnett & Lunsford, 1994; Dahl et al. 2003), but also revealed some guilt-causing circumstances that implied the need for revision and extension of those models. Table 2 depicts definitions of the dimensions of consumer guilt, and some quotations portraying each of them.

Health guilt. Corroborating extant literature (Dahl et al., 2003; Dedeoğlu & Kazançoğlu, 2010), an important part of the participants' responses regarding guilt related to oneself. In this scope, some participants raised concerns about consuming products that are not good for their health and body – hereafter referred to as *health guilt*. This category has been abundantly studied in the scope of consumer research, particularly in regard to eating-related guilt, which is predominantly generated via the consumption of tasty but calorific and/or unhealthy foods such as sweets, pastries, fast food, crisps, and ice-cream (Geeroms et

al., 2008; Steenhuis, 2009). Research has shown that the way nutritional information is displayed (Choi et al., 2019; Kim, 2020; Mohr et al., 2012), as well as health claims made by brands (Lalor et al., 2011; Wansink & Chandon, 2006), may influence eating-related anticipated guilt and consequent consumption decisions and behavior. As health has several contexts (Furlong et al., 2013) and is not limited to physical and eating-related topics, in our scale we decided to go beyond those perspectives and include both *physicals and non-physical health*.

Extravagance guilt. Many other participants referred to guilt arising from buying or spending more than necessary, which is also a form of guilt centred on oneself (Dalh et al., 2003). The participants mentioned spending more than desirable given the individual's personal income, buying on impulse, buying a greater-than-necessary quantity, spending more on some products when cheaper equivalents are available, and buying products that they do not really need and rarely or never use. These scenarios are closely aligned with what Burnett and Lunsford's (1994) referred to as *financial guilt* and defined as the reaction generated by hedonic, unnecessary, and not easily justified consumption. We named it *extravagance guilt* since guilt, in these cases, does not seem to result exclusively from financial damage to the consumer themselves, but rather from the violation of personal standards of thrift, regardless of whether significant financial harm is caused. Prior research has paid much attention to guilt related to unneeded purchases. It has shown that although anticipated feelings of guilt may hinder hedonic consumption (Lascu, 1991; Strahilevitz & Myers, 1998), these feelings may be reduced by the existence of a justification that morally licenses the consumer to *indulge*. Justifications can include a coupled contribution to a cause (Baghi & Antonetti, 2017; Kivetz & Simonson, 2002; Silva & Martins, 2017), a discount

(Jeong & Koo, 2015; Lee-Wingate & Corfman, 2010), personal effort (Kivetz & Simonson, 2002; Okada, 2005; Prinsen et al., 2019), an achievement (Mick & Faure, 1998; Prinsen et al., 2019), or even prior consumption restraint (Mukhopadhyay & Johar, 2009). Pricing tactics may also play an important role in reducing this kind of anticipated guilt. For instance, Choi et al. (2014) showed that odd-ending pricing – which leads to a discount perception – increases the purchase likelihood of hedonic products, since it has the effect of reducing consumers' anticipated guilt. However, this effect applies only when financial, but not health-related, consequences are involved.

Misevaluation guilt. Still in the scope of guilt centred on oneself, several participants reported feelings of guilt after making “bad” purchases owing to an insufficient search for *information* about the product's features and market offerings or not choosing the right moment (*time*) to buy. They used sentences in which the phrases “information deficit”, “not searching more”, “absence of comparison”, and “not waiting for the best opportunity” were prevalent. The focus of this guilt dimension that has never been considered in previous conceptualisations is on the pre-purchase process that leads to purchases of lower value (higher price and/or lower quality) being made, where better value could have been obtained if consumers had been more careful.

Ethics and sustainability guilt. Some participants expressed feeling of guilt regarding consumption behaviors that have a potentially damaging effect on other people or the environment – here named *ethics and sustainability guilt*. For instance, one participant referred to guilt provoked from buying cheap clothes, considering that, in order to be able to sell at low prices, some brands use child labour. This is close to the concepts of both *social responsibility guilt* (Burnett & Lunsford, 1994), and *guilt related to others* (Dahl et al., 2003),

defined as the emotional reaction resulting from consumption that violates perceived social obligations towards society (namely family, other citizens, or the environment). Existing research has shown that stressing the negative consequences to other people of a given consumption behavior (Antonetti & Maklan, 2014; Lindenmeier et al., 2017; Steenhaut & Van Kenhove, 2006) and activating consumer self-accountability (Peloza et al., 2013) stimulates anticipated feelings of guilt, thus increasing consumers' ethical intentions, such as the preference for products with ethical attributes.

Table 2 - *Dimensions of Consumer Guilt*

Dimension	Definition	Example verbatims
Health Guilt	Guilt felt about the purchase of something the individual believes is not good for their health.	"I feel guilty every time I drink a soda." "I feel guilty when I have had some biscuits with cream." "I feel guilty when I eat too much (...)." "I feel guilty when I drink more than I should."
Extravagance Guilt	Guilt felt about buying products that augment pleasure and are considered enjoyable. It can occur through the simple act of purchasing, such as impulse buying behaviour, or upon the purchase of products that are not necessary or are consumed in excess.	"I feel guilty when I engage in impulse buying." "I feel guilty because I spent a lot of money during my last trip to the US." "I feel guilty because I built up some savings when working as a freelancer and then I spent it all partying." "I feel guilty because I bought three units of a product instead of just one."
Misevaluation Guilt	Guilt felt upon a purchase decision based on an erroneous assessment of alternatives, or an assessment made in the absence of all relevant information to make a decision. It often results from decisions that are made in a hurry or when there is insufficient decision-making time.	"I feel guilty because I bought a SIM card (...), but I didn't read the regulations on promotions and cancellation policy, and I lost money." "I feel guilty because I bought an 'age 2'-sized dress for my 6-month-old daughter without asking my wife about the size. The girl has never worn the dress." "I felt guilty when I bought a book and then, a couple of months later, asked myself why I did so." "I feel guilty when I do not take advantage of promotions."

Social Influence Guilt	Guilt felt when purchasing something that reference groups do not appreciate. It results from not complying with the values, attitudes, and beliefs that are expected from the group or groups one belongs to. It is felt when the purchase includes products of which the reference group disapproves.	“I feel guilty when I buy something for myself and not for my kids.” “I felt guilty when I bought a fashion item that later was criticised by my husband.”
Ethics and Sustainability Guilt	Guilt felt due to the purchase of products that may jeopardise responsible decisions towards society, the environment, etc.	“I bought leather tennis shoes, and only afterwards did I realise they were made of leather. This made me feel guilty, and I returned the product.” “I love the chocolate candy bar Crunch, made by Nestle. But I heard that some companies that produce chocolate use slave and semi-slave work. That makes me feel guilty when I have a Crunch.”

Social influence guilt. Prior conceptualisations of guilt (Basile et al., 2011; Carni et al., 2013) and consumer guilt have differentiated guilt generated by the perception of harming others with one’s behaviors from guilt derived from behaviors that merely *violate social standards* without damage to others. Burnett and Lunsford (1994) defined moral guilt as the negative affective experience related to consumption decisions perceived as immoral – that is, against the codes of traditional morality of a specific society or culture, and that are frequently associated with religion and tradition (McPherson, 2017). This conceptualisation is in line with Dahl et al.’s (2003) definition of guilt related to societal standards, in which feelings of guilt are generated not by the awareness of the negative effect of consumption on others, but rather by the transgressions of social standards for appropriate behavior in a given culture or group, whether or not they have negative effects on others. For instance, eating beef or pork, drinking alcohol, and viewing pornography are examples of consumption behaviors that can trigger strong feelings of guilt in certain cultures. Some participants’

declarations conformed to this category. One participant mentioned feeling guilty when buying something for herself and nothing for her children.

PHASE 2: PILOT STUDY AND SCALE PURIFICATION

After clearly defining its conceptual domain, an initial set of possible items for measuring CGP was generated and judged for face validity by the researchers, leading to the creation of a preliminary version of the instrument. This version was administered to a pilot sample in order to conduct initial validity analysis and reduce the number of items that do not meet basic psychometric criteria. The simplified version of the instrument was then applied to a validation sample for purification (Netemeyer et al., 2003).

Methodology

A preliminary list of 86 items was put together based on the results of the qualitative study and literature review. After screening and face validity checks, an initial CGP instrument was constructed containing 43 items, presenting generic guilt-inducing consumption situations representing the five identified consumer guilt dimensions, which were mixed throughout the questionnaire. Participants were asked to express how they thought they would feel in each of those consumption situations, using a 5-point rating scale ranging from 1 – not guilty at all to 5 – highly guilty. It is worth stressing that all items related to guilt resulted from transgressive consumption. Hence, omission (or non-consumption) guilt items were not included, as the omission of a given desirable behavior typically translates into an alternative transgressive behavior. For example, feeling guilty about not choosing a green product may be translated into feeling guilty about buying a product that has damaging effects in the environment. To facilitate communication among the researchers, who spoke different native

languages, the items were first written in English and then translated into Portuguese, the native language of the respondents.

The pilot study, with the preliminary version of the instrument, yielded 380 valid responses (sample 3). Data resulting from this stream of data collection were subjected to exploratory factor analysis (EFA) with principal component analysis and varimax rotation, in SPSS. A streamlined version of the instrument (based on the pilot study results), with 27 items, was then applied to a validation sample, from which 420 valid responses were obtained (sample 4). Besides EFA, data were subject to confirmatory factor analysis (CFA), using the maximum-likelihood estimation method, in AMOS SPSS.

Data were collected in two phases, using the Qualtrics survey platform, where the questionnaire was built and administered. The web link to the questionnaire was then disseminated via social media and email.

Results

Pilot study. When the EFA was run on the pilot study data (without any restrictions in terms of the number of factors to retain), using eigenvalues greater than 1 as the criterion for retention, the solution resulted in 12 factors. Alternatively, the theoretical model resulting from the preliminary qualitative study was used to define the number of factors to retain. Therefore, a new EFA solution was estimated, with the number of factors to extract set to five. In the EFA solution, items with low factor loadings ($< .50$) and high cross-loadings ($> .35$) were candidates for elimination (Hair et al., 2019). However, before finalising any elimination decisions, all candidates were examined in terms of their theoretical importance. Therefore, some were retained at this preliminary phase despite the presence of relatively high cross-loadings. With that in mind, several iterations were performed, running multiple

EFA with progressively fewer items. At the end of this iterative process, a solution was reached that contained 27 items distributed across five factors, accounting for approximately 61% of the total variance. The Kayser-Meyer-Olkin (KMO) measure of sampling adequacy was .88, and Bartlett's test yielded 5866.91 ($p < .001$). After this pilot phase, one item was rewritten in an attempt to improve its loading in the corresponding factor and reduce potential cross-loadings. The first version of the item, "...if I deliberately opted for less healthy products, knowing that there are better alternatives for health, even if for slightly higher prices...." was rephrased to "...if I deliberately opted for less healthy products, knowing that there are better alternatives for health with similar prices..."

Scale purification. Drawing upon the EFA results from the previous phase, a 27-item, five-dimension measurement model was estimated with the data from the validation sample. However, the examination of fit measures revealed some unsuitable values, considering the most accepted thresholds ($\chi^2/df = 3.99$; CFI = .83; TLI = .82; RMSEA = .08; SRMR = .07). In order to improve fit, the model was respecified following guidelines from the literature (Hair et al., 2019). Two items, regarding misevaluation guilt ("...if I rushed to buy a given product and shortly after, a new and more innovative product was released") and extravagance guilt ("...if I bought something I did not need at that moment just because it was on sale or at a 'good price'"), had a standardised loading below .50, the least conservative threshold for an acceptable indicator. This, along with the fact that both items had some problematic standardised residuals (above 2.5), led to their deletion in the first step of model respecification. After this change, the model fit was still unsatisfactory according to the recommendations in the literature (Hair et al., 2019), although all remaining loadings were above 0.5. Therefore, an iterative process was carried out to improve it to adequate levels.

We iteratively examined item loadings and modification indices, identified candidate items for deletion, analysed their theoretical relevance, and made decisions about their elimination/non-elimination. At the end of this process, seven more items were eliminated – two related to *extravagance guilt*, two concerning *ethics and sustainability guilt*, and three related to *misevaluation guilt*. At the end of this process, as shown in Table 3, all items remaining in the model had standardised loadings above .60. At the same time, the modification indices were predominantly low. The final measurement model, with 18 items representing five constructs, had a satisfactory fit ($\chi^2/df = 3.05$; CFI = .93; TLI = .92; RMSEA = .07; SRMR = .06) relative to the recommended cut-offs (Hair et al., 2019).

Table 3 - Scale Items, Descriptive Statistics, EFA and CFA Factor Loadings, and Reliability and Validity Measures

	Mean	SD	EFA loading	CFA loadings	Validity measures
Extravagance guilt					
Buying something superfluous.	3.25	1.16	.87	.872	$\alpha = .78$ CR = .79 AVE = .56
Buying something that was not a priority.	3.25	1.18	.79	.711	
Buying a more sophisticated or luxurious (thus, more expensive) product, when a cheaper equivalent product would perfectly fulfil my needs.	3.38	1.11	.72	.64	
Social influence guilt					
Buying something that the people I like the most would not approve of.	2.74	1.22	.81	.81	$\alpha = .78$ CR = .78 AVE = .55
Making a purchase criticized by people who are close to me (family, friends).	2.26	1.15	.86	.72	
Buying something that I know is negatively regarded within the society/culture in which I live.	2.42	1.17	.80	.69	
Ethics and sustainability guilt					
Buying a brand owned by a company for which there is strong evidence of disregard for employees' rights.	3.99	1.05	.88	.91	$\alpha = .89$ CR = .89 AVE = .63
Buying a brand owned by a company for which there is strong evidence of disregard for human rights (e.g., child labour, slave labour).	4.22	1.02	.88	.90	
Buying a brand owned by a company for which there is strong evidence of unfair treatment of animals.	4.12	1.15	.80	.74	
Buying a product/service that has harmful effects on the environment.	3.83	1.07	.73	.71	
Buying a brand owned by a company for which there is strong evidence of involvement in corruption.	3.75	1.22	.68	.68	

Misevaluation guilt

Making a “bad purchase” because I was not more deeply informed about the characteristics or condition of that product/service.	4.32	.92	.79	.83	$\alpha = .80$ CR = .82 AVE = .55
Making a “bad purchase” and then realise that if I had looked for information before buying, I would have found a lot of evidence (news, complaints) about the lack of quality of the products/services of that company or brand.	4.26	.94	.78	.79	
Buying something without searching for prices and find out that the same product could be purchased at a lower price elsewhere.	4.07	1.14	.84	.79	
Buying a product/service at the normal price that goes on sale shortly after.	3.77	1.28	.67	.50	

Health guilt

Buying and consuming a product/service that has negative effects on my physical health and image (e.g., weight, skin, or teeth).	3.72	1.21	.88	.90	$\alpha = .74$ CR = .75 AVE = .51
Buying and consuming a product/service that I like, even knowing that it could negatively affect my health in the future.	3.67	1.25	.80	.83	
Deliberately opting for less healthy products, knowing that there are better alternatives for health with similar prices.	3.56	1.25	.81	.74	

Variance explained (EFA) = 71.09%

Model Fit (CFA): CFI = .93 TLI = .92 RMSEA = .07 SRMR = .06

NOTES: Participants were asked to express how they thought they would feel in each of the consumption situations (1 to 5 scale, being 1 = not guilty and 5 = highly guilty). SD = standard deviation; α = Cronbach's alpha; CR = construct reliability; AVE = average variance extracted

To assess internal consistency, both construct reliability and Cronbach's alpha were computed, showing, for all scales, values above the recommended threshold of .70 (Table 3). This provides evidence that all items in the same scale were measuring the same construct. To evaluate convergent validity, besides examining the factor loadings, which varied between .50 and .91, the average variance extracted (AVE) was computed for each scale; this varied between .54 and .68 (Table 4), which suggests adequate convergence.

Discriminant validity was tested by comparing the square root of the AVE estimates of each construct with the correlations between each construct and all other constructs. As shown in Table 4, the square roots of the AVE estimates are greater than the correlation estimates in all scales, indicating that each latent construct explains more of the variance in its item measures than those it shares with other constructs, which is evidence of discriminant

validity (Fornell & Larcker, 1981). Additionally, we tested discriminant validity using Bagozzi and Phillips's (1982) procedure, running nine alternative measurement models. In each model, the correlation between one pair of latent variables was set to 1 while all the other correlations were freely estimated. Chi-square statistics for each model were recorded and compared to the chi-square value of the baseline model. In every case, the chi-square statistic for the baseline model was significantly lower than the chi-square value for the models with fixed correlation levels, providing support for discriminant validity among all constructs.

Table 4 - *Assessment of Discriminant Validity: Correlations and AVE square roots*

Construct	1	2	3	4	5
1. Extravagance guilt	(.75)				
2. Social influence guilt	.19	(.74)			
3. Ethics and sustainability guilt	.36	0.20	(.79)		
4. Misevaluation guilt	.43	0.18	0.44	(.74)	
5. Health guilt	.39	0.33	0.45	0.40	(.82)

NOTES: AVE square roots are shown in bold in brackets. Correlations among consumer guilt dimensions are all significant at $p \leq .01$.

PHASE 3: TEST-RETEST RELIABILITY AND NOMOLOGICAL VALIDITY

In the third phase of this study, test-retest reliability (i.e., the ability of the instrument to provide consistent scores over time) – and nomological validity (i.e., the degree to which constructs that are theoretically related are empirically related; Netemeyer et al., 2003) of the CGP were analysed. To test the nomological validity of a measure, the concept of interest has to be analysed within a larger theoretical network containing the focal concept and a set of its expected antecedents and/or consequents in a complex theoretical system (Bagozzi,

1981). As an instrument to measure individual tendency to feel guilty in the face of transgressive consumption situations, the CGP scale is expected to predict consumer decision patterns. Research on general guilt proneness indicates that, while the experience of guilt (as a state) elicits reparative behavior following a transgression, guilt proneness causes people to avoid transgressing in the first place (Cohen et al., 2012; Levine et al., 2007). Therefore, individuals who anticipate feeling guilty over wrongdoing avoid norm violations. Considering this, a nomological network was built where the five dimensions of CGP are predictors of consumer decision-making patterns, such that a higher proneness to experience a certain type of guilt is expected to promote consumption decisions that prevent or oppose the transgression that elicits that kind of guilt. The choice of relevant outcomes to be included in the model was mostly based on the Sprotles and Kendall's (1986) model of consumer decision-making styles. Seven outcomes, regarding consumer decision-making patterns, were considered, namely (a) high-quality conscious – consumers seek the very best product, with the highest quality in the market; (b) brand conscious – consumers have a preference for the most well-known prestigious brands; (c) novelty and fashion conscious – consumers like to keep up-to-date with styles, to follow the newest trends; (d), recreational – consumers like spending time shopping, finding it a pleasant and entertaining activity, (e) price conscious – consumers focus on paying low prices and finding the best discounts; (f) impulsive/careless - consumers tend to make unplanned purchases; and (g) environmentally conscious – consumers seek eco-friendly products. Considering these outcomes and the previously defined conceptual domain of CGP, we are able to propose a theoretical framework to be tested.

Extravagance guilt arises from unjustifiable purchases that relate to conspicuous consumption (Hampson et al, 2021) luxury consumption (Ki et al., 2017), impulse buying (Yi & Baumgartner, 2011) or hedonic consumption (Alba & Williams, 2013). Hence, it is expected that extravagance guilt proneness, on one hand, has a positive impact on price-conscious consumer decision-making (H1.1), and, on the other hand, has a negative impact on decisions that have the potential to elicit extravagance guilt, such as brand-conscious (H1.2), novelty and fashion-conscious (H1.3), recreational (H1.4) and impulsive (H1.5) consumer decision-making

Social influence guilt is mainly related to the expected appropriateness judgement of others (of reference groups) about a given consumption behavior. An individual who is prone to social guilt is anticipated to engage in consumption that leverages social acceptance. Therefore, it is expected that social influence guilt proneness has a positive influence on purchase decisions that have the potential to enhance consumers' social image, such as brand conscious (H1.1) and fashion conscious (H1.2) consumer decision-making.

Individuals with high proneness to ethics and sustainability guilt are expected to try to avoid the personal negative experience associated with consumption behaviors that create damage to other people and/or the environment. Research has shown that anticipated guilt affects sustainable (Onwezen et al., 2014) and socially responsible (Lindenmeier et al., 2017) consumer behavior. Hence, we hypothesise that ethics and sustainability guilt proneness has a positive impact on environmentally conscious consumer decision-making (H3.1).

Poor pre-purchase evaluation leading to a “bad purchase” is the source of misevaluation guilt evaluation, namely impulse buying (Baumeister, 2002). Hence, it is expected that individuals who are more prone to this type of guilt are less impulsive in their

purchases and carefully assess the alternatives in terms of both price and quality. We may also expect that they engage less in purchase activities that favor impulsive buying, such as recreational shopping (Karande & Merchant, 2012). Hence, we hypothesise that misvaluation guilt proneness has a positive influence in both quality conscious (H4.1) and price conscious (H4.2) consumer decision-making, and a negative effect in recreational (H4.3) and impulsive (H4.4) shopping.

Finally, health guilt prone consumers, being more likely to anticipate guilt associated to the consumption of unhealthy products are expected to be more quality conscious (H5.1) and environmentally conscious (H5.2) in their decision making.

Methodology

The final version of the CGP instrument, with 18 items, was used with the purpose of assessing nomological validity and test-retest reliability. This phase included two streams of data collection in which the CGP instrument was administrated to the same sample with an interval of around two months. In the first call, respondents were informed about the importance of their answer in the second phase of the study, which would be carried out some weeks later. To enable this, participants were asked to provide an email contact at the beginning of the questionnaire. To enable nomological validity testing, besides the 18 items contained in the CGP instrument respondents were asked to reply to the items of six scales of the Consumers' Styles Inventory (Sprotles & Kendall, 1986), namely (a) *high-quality conscious*, (b) *brand conscious* (c) *novelty and fashion conscious*, (d), *recreational*, (e) *price-conscious*, and (f) *impulsive*. Since Sprotles and Kendall's index lacks a scale for *environmentally conscious* consumption, which we deemed essential for nomological validity analysis of a scale such as the one in this study, it was measured through the pro-

environmental shopping scale (Whitmarsh & O'Neill, 2010). The first call resulted in a sample of 493 valid responses (sample 5). The second call, with the purpose of testing test–retest reliability, resulted in valid responses from 116 participants (sample 6) that had participated in the first call. Test–retest reliability was assessed using intraclass correlation coefficients (ICC). To complement the results of nomological analysis conducted using the first call data, in the second call, we have collected data regarding general guilt and shame proneness. For that purpose, the short version of the Test of Self-Conscious Affect (TOSCA-3), that comprises three subscales, was used (Tangney & Dearing, 2002). The analysis has exclusively focused on the correlations between CGP scale dimensions and guilt and shame proneness subscales (the externalization subscale was not included in the analysis).

Results

The results of the measurement model estimation in the larger sample (first call; N = 493), depicted in Table 5 were analogous to those of the previous stages, indicating a satisfactory fit ($\chi^2/df = 2.91$; CFI = .95; TLI = .94; RMSEA = .06; SRMR = .07). All standardised loadings were above the minimum recommended value, with a minimum of .56 and a maximum of .93. Internal consistency and construct validity measures were also within the acceptable range.

Table 5 - *Measurement model in the test and the retest samples*

	Test sample (n = 493)		Retest sample (n = 116)	
	CFA loadings	Validity measures	CFA loadings	Validity measures
Extravagance guilt				
Buying something superfluous.	.89		.80	
Buying something that was not a priority.	.85	CR = .84 AVE = .64	.81	CR = .81 AVE = .59
Buying a more sophisticated or luxurious (thus, more expensive) product, when a cheaper equivalent product would perfectly fulfil my needs.	.63		.71	
Social influence guilt				

Buying something that the people I like the most would not approve of.	.90		.77	
Making a purchase criticized by people who are close to me (family, friends).	.85	CR = .84 AVE = .64	.78	CR = .82 AVE = .60
Buying something that I know is negatively regarded within the society/culture in which I live.	.61		.77	
Ethics and sustainability guilt				
Buying a brand owned by a company for which there is strong evidence of disregard for employees' rights.	.93		.86	
Buying a brand owned by a company for which there is strong evidence of disregard for human rights (e.g., child labour, slave labour).	.88		.91	CR = .90 AVE = .64
Buying a brand owned by a company for which there is strong evidence of unfair treatment of animals.	.80	CR = .91 AVE = .66	.79	
Buying a product/service that has harmful effects on the environment.	.74		.75	
Buying a brand owned by a company for which there is strong evidence of involvement in corruption.	.67		.66	
Misevaluation guilt				
Making a "bad purchase" because I was not more deeply informed about the characteristics or condition of that product/service.	.67		.75	
Making a "bad purchase" and then realise that if I had looked for information before buying, I would have found a lot of evidence (news, complaints) about the lack of quality of the products/services of that company or brand.	.85	CR = .82 AVE = .54	.64	CR = .80 AVE = .50
Buying something without searching for prices and find out that the same product could be purchased at a lower price elsewhere.	.83		.82	
Buying a product/service at the normal price that goes on sale shortly after.	.56		.60	
Health guilt				
Buying and consuming a product/service that has negative effects on my physical health and image (e.g., weight, skin, or teeth).	.92		.87	
Buying and consuming a product/service that I like, even knowing that it could negatively affect my health in the future.	.84	CR = .86 AVE = .68	.83	CR = .84 AVE = .63
Deliberately opting for less healthy products, knowing that there are better alternatives for health with similar prices.	.71		.67	
Test Sample Model Fit: $\chi^2(125) = 363.92$; $p < .001$ CFI = .95 TLI = .94 RMSEA = .06 SRMR = .07				
Retest Sample Model Fit: $\chi^2(125) = 165.92$; $p < .001$ CFI = .95 TLI = .94 RMSEA = .05 SRMR = .06				

NOTES. SD - standard deviation; CR – construct reliability; AVE - average variance extracted

Nomological analysis supports the majority of the expected relationships (Table 6). Although that is sufficient to attest the presence of nomological validity, some findings deserve further attention. The fact that, contrarily to expected, impulsive buying is not predicted by any of the CGP scale dimensions is particularly interesting. A possible explanation may be found in affective–cognitive models of consumer decision making. Impulse is defined as a sudden

uncontrollable inclination to act in order to gratify one's immediate pleasures without deliberation (Zuckerman, 1994). Hence, impulsive behavior is automatically triggered by primitive, universal, pre-cognitive, lower-order emotions, such as pleasure. The initial lower-order affective reactions evolve into higher-order affective reactions that result from the comparison between personal and societal and the behavioral, which can generate a state of affective ambivalence as guilt (Miao, 2011). This suggests that consumer guilt proneness may not be enough to prevent impulsive buying, due to its immediate and automatic nature. However, it should intensify the experience of guilt after impulsive buying.

Table 6 - *Predictive Validity Analysis – Guilt Proneness Scale Constructs as Predictors of Consumer Decision Styles*

	Standardised effect	Conclusion
Extravagance guilt >> Price conscious (+)	.06	Not supported
Extravagance guilt >> Impulsiveness (-)	-.09	Not supported
Extravagance guilt >> Brand conscious (-)	-.20**	Supported
Extravagance guilt >> Fashion conscious (-)	-.16**	Supported
Extravagance guilt >> Recreational shopping (-)	-.07	Not supported
Social influence guilt >> Brand conscious (+)	.12*	Supported
Social influence guilt >> Fashion conscious (+)	.06	Not supported
Ethics and sustainability guilt >> Environmentally conscious (+)	.41**	Supported
Misevaluation guilt >> Price conscious (+)	.19**	Supported
Misevaluation guilt >> Quality conscious (+)	.01	Not supported
Misevaluation guilt >> Recreational shopping (-)	-.20**	Supported
Misevaluation guilt >> Impulsiveness (-)	.01	Not supported
Health guilt >> Environmentally conscious (+)	.14**	Supported
Health guilt >> Quality conscious (+)	.12**	Supported
Model Fit: $\chi^2(679) = 1451.00$; $p < .001$ CFI = .90 TLI = .89 RMSEA = .05 SRMR = .07		

Despite the limitations of the sample size (second call; N = 116), the results of the measurement model testing in the retest sample were very similar to those obtained in the

larger initial sample, showing adequate fit (Table 5). Before computing the ICC, the total scores of each construct were computed by averaging their corresponding items. ICC estimates and their 95% confident intervals were calculated based on a mean rating, consistency, two-way mixed-effects model (McGraw & Wong, 1996). The results of this analysis, along with Pearson correlations and paired t-tests for each construct of the CGP instrument, are presented in Table 8. Even though the means of all constructs suffered slight statistically significant alterations (except for *social influence guilt*) from the test to the retest, ICC and confidence interval estimates suggest moderate to good reliability of all the scales.

Table 7 - Assessment of Test–Retest Reliability

Construct		EG - R	SI - R	ESG - R	MG - R	HG - R	Intraclass Correlation
	Mean (SD) ↓→	2.52 (.82)	2.48 (.87)	3.87 (.79)	3.41 (.80)	3.21 (.90)	(95% confidence interval)
1. Extravagance (EG)	2.77 (.79)	.059					.75 (.63 – 82)
2. Social influence (SIG)	2.44 (.87)		.61				.76 (.64 - .83)
3.Ethics and sustainability (ESG)	3.67 (.81)			.61			.76 (.65 – 83)
4. Misevaluation (MG)	3.61 (.77)				.62		.77 (.66 – 84)
5. Health (HG)	3.48 (.89)					.60	.75 (.64 - .83)
	Paired samples t-test	-3.78**	0.52	3.08**	-3.29**	3.59**	

NOTES: ** $p \leq .01$ * $p \leq .05$

Correlations of the CGP dimensions with the TOSCA-3 dimensions of guilt and shame proneness (that can be consulted in the Supplemental Appendix) contribute to the previous results of nomological validity analysis. The CGP dimensions of health guilt ($r = .29$; $p < .05$), misevaluation guilt ($r = .36$; $p < .01$) and ethics and sustainability guilt ($r = .36$; $p < .01$) are significantly correlated with TOSCA-3 guilt proneness. From these, only misevaluation guilt is also correlated with shame, yet more moderately. Correlation between TOSCA-3 guilt proneness and CGP dimensions of extravagance guilt ($r = .12$; $p > .05$) and social influence guilt ($r = .18$; $p > .05$) are not, however, significant. It is worth noting that TOSCA-3, as well as other general guilt proneness measures, has a predominant focus on interpersonal guilt (triggered by the awareness of creating damage to others), which may partly explain these results, as extravagance guilt is mostly self-centred. It is however of particular interest that social influence guilt, despite not being correlated with TOCA-3 guilt proneness, is significantly correlated with shame proneness, which may suggest that consumption frowned upon by significant other or by the society which is not internalized by the individual as a wrongdoing is more prone to generate shame than guilt.

PHASE 4: CROSS-CULTURAL VALIDATION

To conclude the process of the CGP scale validation, in the fifth phase the applicability of the instrument in different countries – Portugal, Brazil, and Poland – was examined.

Methodology

To examine the invariance of the measurement model across countries, the final instrument, with 18 items, was administered in Portugal (sample 7: N = 262), Poland (sample 8: N = 203) and Brazil (sample 9: N = 213).

After running the measurement model for each country separately through CFA, cross-cultural invariance was tested following well-established procedures (Myers et al., 2000; Steenkamp & Baumgartner, 1998; Vandenberg & Lance, 2000), relying on multiple-group confirmatory factor analysis (MG-CFA) in AMOS SPSS. Hence, we started by testing configural invariance, which entailed the estimation of a multigroup measurement model (Portugal vs. Poland vs. Brazil) in which no constraints were imposed across groups. After finding support for configural invariance, metric invariance was tested by constraining the factor loadings of the indicators to equality across countries. Finally, we tested scalar invariance by imposing equality of indicator intercepts across the three groups.

After finding support for configural, metric, and (partial) scalar invariance, latent means across the three countries were compared. To estimate latent factor means in AMOS, we used the marker-variable method (Little et al., 2007); that is, all factor means that by default were constrained to zero in all the groups were relaxed, and the intercept of the marker item of each factor (whose loading was constrained to 1 to scale the latent variable) was fixed to zero in all the groups in order to identify the model and enable the computation of latent factor means. To check the significance of mean differences among countries, we examined critical ratios for parameter differences provided by AMOS.

Results

The measurement model (Table 8) shows a moderately satisfactory fit for the Brazil ($\chi^2/df = 2.15$; CFI = .94; TLI = .93; RMSEA = .07; SRMR = .08), Poland ($\chi^2/df = 2.01$; CFI = .93; TLI = .92; RMSEA = .07; SRMR = .08) and Portugal ($\chi^2/df = 2.13$; CFI = .93; TLI = .92; RMSEA = .07; SRMR = .07) samples, suggesting that the general structure of the measurement model holds across the countries. Standardised weights, construct validity, and AVE measures indicate internal consistency and convergent validity of the instrument in both samples. Discriminant validity is supported in all samples, according to Fornell and Larcker's (1981) method.

Table 8 - *Comparisons Across Countries – Descriptive Statistics, CFA Loadings, Validity and Model Fit Measures and ANOVA with Pairwise Comparisons*

	Portugal		Poland		Brazil		F (df) and pairwise comparisons
	Mean (SD)	CFA loading	Mean (SD)	CFA loading	Mean (SD)	CFA loading	
Extravagance guilt							
EG 1	3.16 (1.15)	.93	3.05 (1.26)	.90	2.99 (1.34)	.92	F(2,674) = 1.27
EG 2	3.18 (1.10)	.86	2.75 (1.17)	.88	3.06 (1.25)	.84	F(2,674) = 7.89** BR, PT > PL
EG 3	3.35 (1.24)	.51	2.98 (1.33)	.58	3.30 (1.35)	.64	F(2,674) = 5.11** BR, PT > PL
	CR = .82 AVE = .62		CR = .84 AVE = .64		CR = .85 AVE = .65		
Social influence guilt							
SIG 1	2.77 (1.18)	.90	2.68 (1.44)	.94	2.47 (1.25)	.97	F(2,674) = 3.61* PT > BR
SIG 2	2.95 (1.14)	.84	2.51 (1.13)	.69	2.30 (1.17)	.76	F(2,674) = 20.08** PT > BR, PL
SIG 3	2.80 (1.16)	.62	2.86 (1.21)	.60	2.66 (1.37)	.61	F(2,674) = 1.48
	CR = .84 AVE = .63		CR = .79 AVE = .57		CR = .83 AVE = .63		
Ethics and sustainability guilt							
ESG 1	4.38 (.82)	.93	3.42 (1.25)	.94	4.20 (1.09)	.96	F(2,674) = 51.28** BR, PT > PL

ESG 2	4.47 (.78)	.87	3.63 (1.31)	.90	4.31 (1.11)	.94	$F(2,674) = 38.25^{**}$ BR, PT > PL
ESG 3	4.26 (.86)	.74	3.68 (1.29)	.71	4.27 (1.07)	.78	$F(2,674) = 21.00^{**}$ BR, PT > PL
ESG 4	4.19 (.81)	.72	3.48 (1.24)	.64	4.01 (1.08)	.71	$F(2,674) = 28.23^{**}$ BR, PT > PL
ESG 5	4.00 (1.05)	.57	2.77 (1.32)	.62	4.00 (1.12)	.59	$F(2,674) = 79.99^{**}$ BR, PT > PL
	CR = .88 AVE = .60		CR = .88 AVE = .60		CR = .90 AVE = .65		
Misevaluation guilt							
MEG 1	4.21 (.91)	.72	3.93 (1.13)	.61	4.28 (1.01)	.76	$F(2,674) = 7.22^{**}$ BR, PT > PL
MEG 2	4.23 (.84)	.79	3.94 (1.08)	.85	4.20 (1.07)	.88	$F(2,674) = 2.39$
MEG 3	4.22 (.93)	.81	4.02 (1.08)	.79	4.20 (1.07)	.78	$F(2,674) = 5.78^{**}$ BR, PT > PL
MEG 4	3.66 (1.12)	.58	3.33 (1.28)	.58	3.69 (1.26)	.52	$F(2,674) = 5.51^{**}$ BR, PT > PL
	CR = .82 AVE = .54		CR = .81 AVE = .52		CR = .83 AVE = .56		
Health guilt							
HG1	4.02 (.96)	.91	3.84 (1.21)	.90	3.45 (1.35)	.92	$F(2,674) = 14.58^{**}$ PT, PL > BR
HG2	3.93 (1.06)	.84	3.70 (1.23)	.81	3.44 (1.35)	.84	$F(2,674) = 9.60^{**}$ PT > BR
HG3	3.92 (1.03)	.71	3.77 (1.24)	.72	3.46 (1.34)	.82	$F(2,674) = 9.08^{**}$ PT, PL > BR
	CR = .86 AVE = .68		CR = .85 AVE = .66		CR = .89 AVE = .74		
Model fit	$\chi^2(125) = 265.88$ $p < .001$ CFI = .93 TLI = .92 RMSEA = .07 SRMR = .07		$\chi^2(125) = 252.09$ $p < .001$ CFI = .93 TLI = .92 RMSEA = .07 SRMR = .08		$\chi^2(125) = 269.19$ $p < .001$ CFI = .94 TLI = .93 RMSEA = .07 SRMR = .08		

NOTES: $^{**}p \leq .01$ $^{*}p \leq .05$

Next, the multiple-group measurement model with no constraints imposed across groups – configural model (Model 1) – also resulted in acceptable model fit ($\chi^2/df = 845.79$;

CFI = .93; TLI = .92; RMSEA = .04; SRMR = .07), supporting the five-factor structure in all three countries (i.e., configural invariance). The configural model constituted the baseline for the subsequent step. Metric invariance was tested by constraining the factor loadings of the indicators to equality across countries (Model 2). The fit of this model was compared to that of Model 1. As the difference between the χ^2 of the two models is not significant ($\Delta\chi^2[26] = 24.23, p > .10; \Delta CFI = 0.00$), metric invariance (invariance of factor loadings) is assumed, suggesting that the five constructs have similar meanings across the three countries. Finally, we tested scalar invariance – i.e., whether the item intercepts were equivalent across the groups. To this end, all the item intercepts were constrained as equal across countries, while factor loadings were kept constrained (Model 3). The model with all the loadings and intercepts constrained to equality fits significantly worse than Model 2 ($\Delta\chi^2[36] = 272.27, p < .01; \Delta CFI = -0.03$), indicating that at least one item intercept differs across the two groups. Therefore, scalar invariance is not supported. According to the literature, scalar non-invariance is a common issue in cross-cultural studies, and it results mainly from contextual variables not included in the measurement model (Davidov et al., 2018), such as culture-specific norms or demographic composition. However, mathematically, scalar invariance is a precondition for comparing latent factor means across multiple groups. Scalar invariance guarantees that there are no systematic differences in the average item responses between groups that are not due to differences in the mean level of latent variables. Therefore, without scalar invariance, we cannot fully rely on the latent estimated means (Marsh et al., 2018; Steenkamp & Maydeu-Olivares, 2021). Different approaches have been suggested for how to deal with the problem (Marsh et al., 2018). In this study, we adopted the traditional stepwise approach (Myers et al., 2000; Steenkamp & Baumgartner, 1998), which consists of

multiple iterative cycles of selecting the estimated intercept with the largest modification index, freeing it, and then evaluating model fit until acceptable fit is achieved. Through this process, 15 constraints were relaxed (Model 3.1), ensuring, however, that at least two intercepts per construct were invariant. Although the χ^2 difference between Model 2 and Model 3.1 ($\Delta\chi^2[25] = 84.86$, $p < .05$; $\Delta CFI = -0.01$) was significant, suggesting a non-invariant factor covariance, we assumed a less stringent test of invariance, based on the comparison of CFI, which is deemed by some authors to be more reasonable (Chen, 2007; Cheung & Rensvold, 2002). Chen (2017) advocated that in testing intercept invariance, a change smaller than or equal to -0.010 in CFI, supplemented by a change smaller than or equal to 0.015 in RMSEA or 0.010 in SRMR, indicates that the null hypothesis of invariance should not be rejected. This criterion is observed in the comparison of the partially scalar invariant model (Model 3.1) and the metric model (Model 2), as shown in Table 9.

Table 9 - Cross-cultural (Portugal, Poland and Brazil) Measurement Invariance

Model	χ^2	df	CFI	TLI	RMSEA	SRMR	Models compared	$\Delta\chi^2$	Δdf	p	ΔCFI	Conclusion
Model 1 (M1) No constraints	845.79	395	.929	.917	.041	.068	–	–	–	–		Configural invariance supported
Model 2 (M2) All λ constrained equal	870.02	421	.929	.922	.040	.069	M2-M1	24.23	26	.563	.000	Metric invariance supported
Model 3 (M3) all λ and τ constrained equal	1142.28	457	.891	.891	.047	.069	M3-M2	272.27	36	< .001	-.038	Full scalar invariance not supported
Model 3.1 11 relaxed τ	954.87	446	.919	.917	.041	.068	M3.1-M2	84.86	25	.000	-.010	Partial scalar invariance supported

Previous research has shown that self-conscious emotions, such as guilt and shame, are strongly shaped by culture (Wong & Tsai, 2007). Therefore, the results of latent mean comparisons, displayed in Table 10, seem to constitute additional evidence of the psychometric qualities of the scale, as they reflect the higher cultural proximity that exists between Portugal and Brazil (Hofstede, 2021).

Table 10 - *Latent Mean Differences and Critical Ratios*

Construct	Latent mean			Critical ratio (CR)		
	Portugal	Poland	Brazil	PT – PL	PT – BR	PL – BR
Extravagance guilt	2.35	1.98	2.30	3.00**	0.40	-2.50*
Social influence guilt	1.77	1.68	1.47	0.78	2.62*	1.79
Ethics and sustainability guilt	3.38	2.42	3.20	7.91*	1.89	-7.55**
Misevaluation guilt	3.21	2.92	3.28	2.87*	-0.80	-3.50**
Health guilt	2.92	2.77	2.46	1.37	4.27**	2.64**

NOTES: ** $p \leq .01$ * $p \leq .05$

DISCUSSION AND CONCLUSIONS

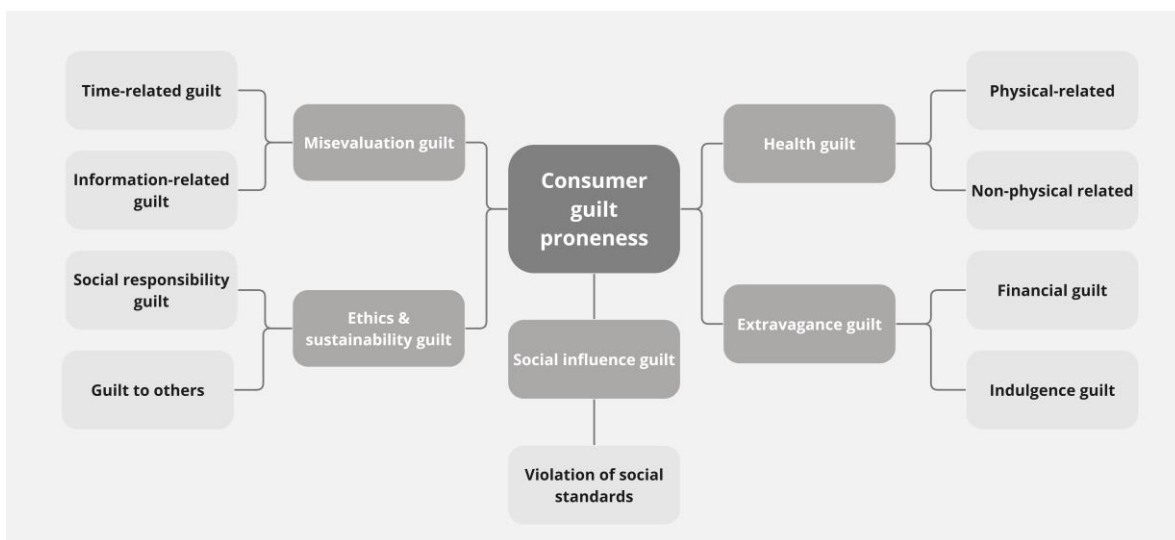
Theoretical Contributions

In order to advance both the academic discourse on the CGP construct and related managerial practices, this study aimed to develop a valid measure. CGP was conceptualised as a multidimensional individual trait indicative of a predisposition to experience negative feelings of guilt about individual consumption behaviors that violate personal, social, or moral standards, regardless of whether these generate interpersonal damage. It was therefore

assumed that, independently of other contextual factors, some individuals have a higher predisposition to experience feelings of guilt than others prior to entering certain transgressive consumption scenarios, while the kind of transgressive situation (dimension of CGP) that leads to more intense feelings of guilt may also vary across individuals.

Five dimensions of CGP were identified: *extravagance*, *social influence*, *ethics and sustainability*, *misevaluation*, and *health guilt* proneness. This model (Figure 1) corroborates but also extends previous conceptual models (Burnett & Lunsford, 1994; Dahl et al., 2003) regarding consumer guilt.

FIGURE 1 – *Consumer Guilt Proneness Scale Building Blocks*



While four of these dimensions have high similarity to those previously conceptualised by Burnett and Lunsford (1994) – *extravagance*, *social influence*, *ethics and sustainability*, and *health guilt* proneness (similar to financial, moral, social responsibility,

and health guilt) – the present model introduces a new dimension that has not been explored in prior consumer guilt research: *misevaluation guilt* proneness. The novel dimension of *misevaluation guilt* fits the broad category of *guilt related to oneself* proposed by Dahl et al. (2003), giving strength to the argument that consumption-related guilt is much more self-centred than other forms of guilt (Dahl et al., 2003; Dedeoğlu & Kazançoğlu, 2011). The final 18-item scale developed on the basis of this conceptual model shows appropriate construct validity and test–retest reliability. Moreover, we were able to establish measurement invariance across three different countries, located on two different continents and speaking two different languages, which suggests that the scale can be used in distinct cultural contexts.

Actually, the dichotomy of individualism versus collectivism is frequently used to study cultural differences in experiencing guilt. While Portugal and Brazil exhibit lower levels of individualism, Poland leans toward a (moderately) individualistic culture (Hofstede, 2021). The anticipated predominance of guilt culture in Poland and shame culture in Portugal and Brazil, as per Benedict's 'shame vs guilt cultures' model, isn't supported by data. The findings reveal Polish scores consistently below Portugal and Brazil in most aspects of CGP, except for health and social influence guilt. Notably, there's no established empirical relationship between guilt/shame and individualism/collectivism (Young et al., 2021). However, higher reported CGP levels in collectivist countries (Portugal, Brazil) compared to individualistic ones (Poland) align with previous research associating individualism with lower emotion expressivity (Matsumoto et al., 2008). Specific country factors contribute to these differences. For instance, Portugal's higher collectivism leads to greater social influence guilt compared to Brazil, reflecting its societal paternalism and inclination toward social

norms (Proença & Branco, 2014). Poland's lower ethics and sustainability guilt scores align with its higher individualism, emphasizing self-care and immediate family responsibilities (Hofstede, 2021). Brazil's low health guilt may stem from its indulgent cultural dimension, valuing the satisfaction of needs and desires without significant restraint (Hofstede, 2021), potentially resulting in more lenient assessments of health-damaging actions and lessened guilt.

By being the first to conceptualise and operationalise the construct of CGP, we provide marketing scholars with a comprehensive measurement instrument that can be used in further research. The guilt proneness scale may be used to explain certain consumer decisions and behaviors, and also as a control variable in studies where the influence of contextual variables on the experience of guilt is examined.

As we favor the idea that guilt, and particularly consumer guilt, differs from other negative emotions, in our work we have disentangled the basic components of guilt, while also distinguishing it from parallel constructs. Additionally, we believe that the existence of this construct opens new avenues for research in consumer psychology, by improving understanding of consumer recommendation and purchase intentions. Understanding how the profile of the consumer influences their impulsive buying (Rook & Fisher, 1995), need for uniqueness (Lynn & Harris, 1997), brand love (Batra et al., 2012), word-of-mouth (Goyette et al., 2010), frugality (Lastovicka et al., 1999), attitudes towards donations (Webb et al., 2000), and so on are some potential constructs whose examination can better explain the psychology of consumers – namely their degree of proneness to feel guilty.

Practical Implications

The ability to measure the levels of CGP provides a useful managerial tool for investigating consumer behavior, including in an international context. The scale can be used in consumer segmentation and other marketing research. We encourage marketing managers to use it to explore guilt proneness for market psychographic segmentation, customer profiling, brand development, and communication strategies.

First, as guilt has been described as a consumer state that fosters action (or lack thereof) which has consequences for wider society (Theotokis & Manganari, 2015), understanding this emotion is relevant from the standpoint of various social and environmental challenges that consumer societies are currently facing. Numerous studies have investigated how guilt relates to prosocial or pro-environmental behaviors (Antonetti & Maclan, 2014; Lindenmeier et al., 2017), and in some of these studies scholars have used the term eco-guilt (Mkono & Hughes, 2020; Bahja & Hancer, 2021). With the rise of various anti-consumption patterns (reducing, rejecting, or avoiding consumption), anticipated guilt has recently been found to be one of the antecedents of intention to reduce consumption (e.g., air travel) (Culiberg et al., 2022). It has also been found to be positively associated with other “reduce, reuse, and recycle” behaviors such as those related to food waste (Attiq et al., 2021). Antonetti and Maklan (2014) claimed that the feelings of guilt and pride experienced by consumers after a purchase decision that involves issues of environmental and social sustainability, deserve more attention. We believe that the possibility to measure CGP and include this construct among the variables could help in the development of similar studies.

Second, the rise of guilt-free consumption, the increasing scope of ethical alternatives, and the variety of guilt-free narratives have fostered studies on what makes guilt-free marketing effective (Haynes & Podobsky, 2016; Pelozo et al., 2013; Sharma & Paço, 2021). Research on guilt-free marketing has argued that it is crucial to identify the factors that influence, both positively and negatively, the consumption of green products, as such knowledge will allow firms to target the markets effectively (Sharma & Paço, 2021).

Third, firms apply various strategies to reduce consumer guilt, such as launching products that reduce the negative effects of existing products (Sett, 2020). This approach has been recently labelled “mitigation” in marketing (American Marketing Association, 2022), and there has been a call for studies related to consumer decision models examining the mitigation of addiction, bingeing, overeating, extravagance, and other vice behaviors. Interestingly, recent studies have shown that the process of mitigating guilt relates to consumers’ personality traits, such as discomfort with ambiguity (Sett, 2020). As CGP is also a personality trait, we believe that it too may relate to the process of mitigating guilt.

Limitations and Future Research

This scale, like a large proportion of personality trait measurements (McDonald, 2008), is a self-report instrument that asks people to respond to questions or statements about what they are like. It is known that people often respond so as to present themselves in a more socially desirable way (Paulhus, 1991). This concern is somewhat reduced in our study by maintaining the respondents’ anonymity. Social desirability is not, however, the only bias associated with self-report measures. Self-reports are built on the assumption that individuals know enough to be able to portray themselves accurately in relation to the trait under study

(McDonald, 2008). However, each person has an incomplete and somewhat distorted conception of themselves. Thus, it is not possible to guarantee that the response corresponds to what would happen if that situation really occurred. Future studies should try to test relationships between the results on the CGP scale and behavioral measures.

Another relevant issue is the limited generalisability of the guilt proneness measure. We validated the guilt proneness scale in Western countries that are quite similar in several cultural dimensions, and thus the scale's universal application is not justified. Therefore, further investigation of the cross-cultural validity of the guilt proneness scale in other cultures, particularly Eastern ones, is needed.

Since guilt is a self-conscious emotion, future studies are also needed to further examine the relationships between CGP and propensity to other self-conscious emotions – such as shame, regret, and pride – in the context of consumption. In this regard, the CGP dimension of social influence guilt deserves particular attention as our results suggest that this dimension is correlated with shame yet not with guilt proneness. Including more traditional societies, guided by religion in future cross-cultural studies, would be useful to understand whether this pattern holds. Moreover, as no measures are available to assess traits as shame or pride in the scope of consumption, further studies should be conducted with the purpose of developing them. Additionally, other consumer predispositions, out of the scope of self-conscious emotions, such as consumer anxiety, nostalgia, or boredom proneness may eventually be studied in future.

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