UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS)

ESCOLA DE ADMINISTRAÇÃO (EA)

PROGRAMA DE PÓS-GRADUAÇÃO EM ADMINISTRAÇÃO (PPGA)

TESE DE DOUTORADO

DOCTORAL DISSERTATION

CHOICE MODELLING EMBEDDED IN
MARKETING RELATIONSHIPS

RAFAEL LAITANO LIONELLO

Orientador/ Advisor: Luiz Antônio Slongo, PhD

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ABSTRACT

Continuation versus defection decisions are rarely a neutral process for consumers. Although previous research has recognized the key role of emotions in such process, it has not directly formulated models of choice based on affective constructs. This dissertation develops and empirically tests such model using discrete choice experimental data. The conceptual model incorporates sellers' extra effort and work (e.g., adaptation of policies, provision of small favors or considerations) into a traditional choice model, and shows how such efforts unfold in consumer black box as well as influences behavioral outcomes. Specifically, I propose that benefits received throughout interpersonal interactions create a self-other trade-off, which is processed by a specific social-emotional process. Across three studies, the dissertation demonstrates that the social-emotional process mediates the effect of seller efforts on defection utility, and such process is activated only when benefits are received thought interpersonal interactions. Also, the current results demonstrate that the role of emotions on preferences is highly malleable, that is, the same social emotion can both promote or inhibit defection behaviors. Overall, the work offers theoretical insights and methodological guidelines for research on the role of emotions on choice situations. In particular, marketing research should avoid claiming fixed relations between discrete emotions and consumer preferences or prioritize more valenced-based approaches in discrete choice frameworks.

Keywords: relationship marketing, defection, emotion and decision-making, hybrid choice model.

RESUMO

Decisões que envolvem continuação versus deserção raramente são um processo neutro para os consumidores. Embora pesquisas anteriores tenham reconhecido o papel fundamental das emoções em tal processo, elas não formularam diretamente modelos de escolha baseados em construtos afetivos. Esta tese desenvolve e testa empiricamente tal modelo usando dados experimentais de escolha discreta. O modelo conceitual incorpora o esforço e trabalho extra dos vendedores (p.ex., adaptação de políticas, provisão de pequenos favores ou considerações) em um modelo de escolha tradicional, e mostra como tais esforços se desdobram dentro da caixa preta do consumidor, bem como influenciam os resultados comportamentais. Especificamente, é proposto que os benefícios recebidos ao longo das interações interpessoais criam um trade-off entre "Eu" e "Outro", o qual é avaliado por um processo socioemocional específico. Através de três estudos, a dissertação demonstra que o processo socioemocional medeia o efeito dos esforços do vendedor na utilidade da deserção, e tal processo é ativado apenas quando os benefícios são recebidos por meio de interações interpessoais. Além disso, os resultados demonstram que o papel das emoções nas preferências em situações de escolha é altamente maleável, ou seja, a mesma emoção social pode promover ou inibir comportamentos de deserção. No geral, o trabalho oferece insights teóricos e diretrizes metodológicas para a pesquisa sobre o papel das emoções em situações de escolha. Em particular, a pesquisa em marketing deve evitar alegar relações fixas entre emoções específicas e preferências do consumidor ou priorizar abordagens mais baseadas em valência em análises de escolha discreta.

Keywords: marketing de relacionamento, deserção, emoção e tomada de decisão, modelo de escolha híbrido.

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1 INTRODUCTION

"Naive empiricism can only predict what has happened in the past. It is the theory --- the underlying model --- that allows us to extrapolate".

— Hal Varian, Chief Economist at Google

Consider the following scenario: a businessman is out of town, and needs to transfer an amount of money urgently. The businessman calls his bank account manager and ask him to transfer this money. The bank manager says that he could not transfer the money without signature, however he will do it if the businessman goes to the bank office next week to sign the transfer. The bank manager explains the bank requires signature for this kind of transaction. At a later date, the businessman receives a very good offer from another bank (similar service, with lower charges)... What should the businessman do? Should he prioritize the valuable relationship over his own payoff? Importantly, would he process the relational attributes differently than the product ones? If yes, would any emotional process be at stake in such decision?

Simples situations like that just show that choosing between the maintenance of a marketing relationship and the defection to another company is not a trivial trade-off. In any decision like that, consumers evaluate product attributes, such as price and quality, against budgetary limits, and still have to infer the current seller's capability and intentions to cooperate in the future. Past efforts and work may signal the departure from narrowly egoistic pursuit of benefits and potentially future opportunities, increasing the odds that this relationship is value for money. However, people are reluctant to think about social relationships as instrumentals to achieve personal goals (Nelissen, 2014), and relational expectations are formed in the realm of different mental models (Harmeling, Palmatier, Houston, Arnold, & Samaha, 2015), not being easily solved by typical judgment process such as the expected value. Moreover, cooperation behaviors are determined by the beliefs about others' intentions (Santa, Exadaktylos, & Soto-Faraco, 2018). Although these arguments imply that a defection decision (i.e., decisions in which one or more of the available alternatives have created value through social interactions) have nuances and unique psychological mechanisms that require a special conceptual framework, only recently research has begun to conceptualize individual decision-making among seller alternatives (e.g., Henderson, Steinhoff, Harmeling, & Palmatier, 2020; Hollmann, Jarvis, & Bitner, 2015).

Because interpersonal relationships are rarely an emotional neutral process, or even the primary function of an emotion is to deal with interpersonal encounters (Fischer & Manstead, 2016; Ekman, 1992), defection decisions are likely to elicit a social-emotional process, different from those developed for traditional, non-relational based choices. In consumer behavior and psychology literature, there are many evidences that affect can potentially mediate evaluative and behavioral patterns (e.g., Andrade & Cohen, 2007) and, specifically, that affect can help individuals to build social bonds or address social dilemmas, like cooperation versus competition (Keltner & Haidt, 1999). So, to a theory of choice for relational contexts be complete, it should include the role of emotions.

Although relationship marketing research have recognized the key role of emotional mechanisms, such as gratitude, betrayal, indebtedness, and regret (e.g., Henderson, Steinhoff, Harmeling, & Palmatier, 2020; Pelser, Ruyter, Wetzels, Grewal, Cox, & van Beuningen, 2015; Harmeling, Palmatier, Houston, Arnold, & Samaha, 2015; Wetzel, Hammerschmidt, & Zablah, 2014; Palmatier, Jarvis, Bechkoff, & Kardes, 2009; Lemon, White, & Winer, 2002), much of the work focus on cognitive constructs measured with Likert-scales (e.g., commitment, purchase intentions) or financial performance (e.g., sales, profits) as outcomes. The few empirical works focusing on the choice process have not formally proposed a conceptual model of individual decision-making on the basis of the differential utility of relational efforts versus product attributes, and integrated the mediating, multidimensional, and malleable properties of emotions (the 3M model) into a discrete choice framework. As the emergence of service activities globally provides more opportunities for firms to perform an action to customers in exchange to create value and emotional attachment (Kumar, Rajan, Gupta1 & Pozza, 2017), a framework that explains the emotional process by which the "D-Day" decision unfolds is needed.

The main objective of this dissertation is to develop and test a conceptual framework for consumer choice embedded in marketing relationships. I argue that such decisions are distinct from decisions on, for instance, digital camera or cereal bar products because they carry social emotions and self-other trade-offs (e.g., Should I pay back the benefits received or should I take the money and run? How much am I willing to pay for this relationship?). The dilemma between reciprocation and defection is further complicated when sellers who invest seriously in relationship programs and offer better customer service typically have higher costs and, in turn, prices. Therefore, this research aims to provide and test a conceptual framework for describing decisions that take place in high relational contexts; specifically, **how does**

individual decision-making take place in relational contexts? What is the role of social emotions in such decisions?

The functional perspective of emotions offers a theoretical foundation for answering these questions and relies on the "social survival" (Fischer & Manstead, 2016; Keltner & Haidt, 1999) to explain the utility of emotions. Specifically, researchers posit that affective states help individuals to maintain social relationships (affiliation function) but also to preserve self-esteem and power relative to others (distancing function). Based on this assumption, I argue that a social-emotional process refines preferences and beliefs about others' utility (i.e., the mediating property); it requires a dual process operating in parallel to counterbalance the self-other trade-off (i.e., the multidimensional property); and it does not have a fixed connection with preferences for courses of action, reflecting what it is most accessible in mind (i.e., the malleable property).

This dissertation makes two key contributions. First, the conceptual model defines, operationalizes, and empirically demonstrates that a social-emotional process is likely to emerge in defection decisions. Indeed, results demonstrate that only when benefits are received throught interpersonal interactions are the affect heuristic activated, which accounts for more than half of the total effect of the past efforts on defection utility. Moreover, the conceptual model is able to capture heterogeneity at the decision process level, demonstrating that consumer segments may differ not only in the weight of a marketing relationship for a defection outcome, but also in the perceptions and beliefs about other intentions.

Second, across three separate studies, the current work demonstrates that the relation between emotions and preferences are highly malleable and context-dependent. Specifically, Study 1 and Study 2 demonstrate that anticipated pride may confer a positive value for both cooperation and defection, and such variability depends on the decision frame; Study 3 expands these results and provide persuasive evidence of the key role of the valence for such malleability. Overall, the work offers theoretical insights and methodological guidelines for research on the role of emotions on choice situations. In particular, marketing research should avoid claiming fixed relations between emotions and preferences without its boundary conditions or prioritize more valenced-based approaches in discrete choice frameworks.

Following the introduction, in Chapter 2, I present the theoretical background that links choice modelling to individual decisions embedded in marketing relationships, setting the ground for the conceptual model and the formalization of dissertation hypotheses. Chapter 3

offers a description overview of the three studies. The proposed framework is tested in Chapter 4, whereas its boundary conditions are examined in Chapter 5. Finally, Chapter 6 discusses the main results and conclude with limitations and future research opportunities.

2 CONCEPTUAL BACKGROUND AND MODEL DEVELOPMENT

This chapter discuss relevant research topics for the development of the conceptual model. First, I briefly review behavioral discrete choice models on the basis of recent developments. Second, the affective-cognition connection is discussed in a general perspective as well as in a social context. Third, I present reasons behind reciprocity in marketing relationships. Finally, I detail the conceptual model, the definition of variables, and the formalization of hypotheses.

2.1 BEHAVIORAL DISCRETE CHOICE MODELS: AN OVERVIEW

Discrete choice models have been widely used to explain the choice behavior of individuals and predict demand and market share in a variety of contexts (e.g., Ben Akiva & Bierlaire, 2003). The input of these econometric models are the observed choices – stated in discrete choice experiments or revealed in natural environments – of a set of finite alternatives. When the analyst has access to the product attributes (e.g., price, quality) or individual characteristics (e.g., income, age), discrete choice models estimate the weights that decision maker relies upon these characteristics and then predicts choices according to a certain decision rule (e.g., utility maximization).

Since its introduction in the 1970s, choice models have been modeled based on the random utility paradigm (Mcfadden, 1974), the workforce in the field. Random utility models connect attributes of the alternatives to an underlying unidimensional latent utility that consumers would derive from such attributes. It is assumed that the decision rule is the utility maximization and that the consumer chooses the alternative in which utility is maximum. Such models are usually operationalized through a utility function that is decomposed into two additive components: (1) a deterministic component specified as a function of attributes or individual characteristics, and (2) a stochastic component that represents unobserved factors affecting decision-making. In mathematical notation, let

$$U_{ij} = V_{ij} + \varepsilon_{ij} \tag{1}$$

U_{ij} be the utility of alternative j for consumer i, where V_{ij} is the deterministic component and ε_{ij} is the random component. Typically, it is assumed that the deterministic component V_{ij} has a linear form such as $V_{ij} = x_{ij}\beta$, where x_{ij} and β are the vectors of exogenous variables and parameters, respectively. The probabilistic description of the choice is introduced not to reflect

behavior as being stochastic in nature, but instead to the lack of information which leads the analyst to treat the utility as a random variable and, consequently, describe the choice in a probabilistic form (Ben-Akiva & Bierlaire, 2003).

The traditional choice model has evolved over the past few decades, being enriched with more realist behavioral process. Alternate models have then emerged in order to explore heterogeneity beyond individual preferences for product attributes. For instance, a popular research topic in this line is the impact of regret on judgments and decision making, formalized by Chorus (2010). The main behavioral notion of the so-called regret-minimization model is that people in the act of choosing compare a given alternative with each of the other alternatives available in the choice set in terms of each of their attributes. Thus, the decision rule is to avoid the situation in which a chosen alternative is overcome by one or more alternatives in one or more attributes – which would cause regret. Comparing the minimizing regret to maximizing utility decision rule, the latter focus on performance of an alternative considered in isolation, while the first focuses on an alternative compared with other alternatives in terms of each evaluated aspect (Chorus, 2010).

Less popular paradigms include lexicography-based models, models with multiple reference points, and elimination by aspect models (see Hess, Stathopoulos, & Daly, 2012 for empirical illustrations). Indeed, Hess, Stathopoulos and Daly (2012) have compared a traditional discrete choice model to models that allow mixing decision rules; they obtained significant gains in goodness-of-fit. These results demonstrate that individuals may follow different decision rules when making decisions. In the current dissertation, the conceptual model adopts a traditional decision rule, that is, the random utility model; however, it could be naturally extended to alternate traditions, such as the regret minimization. This possibility is commented in the future research section.

For the purposes of the present dissertation, the integrated choice and latent variable model, also known as the hybrid choice model, deserves more attention. Basically, this modeling framework explicitly embodies unobservable psychological factors into economic choice models, such as attitudes and perceptions (Burke, Eckert, & Sethi, 2019; Ben-Akiva et al., 2012, 2002). Compared to traditional choice models, these models can increase the explanatory power and generate novel policy recommendations. For instance, Theis (2011) investigated how the risk tolerance (i.e., the latent variable) affects the utility of flight options. He showed that individuals may prefer to have some additional buffer time, because customers with low risk tolerance prefer longer flights connection to shorter ones. However, after some

point, they become sensible to connecting time as customers with highly risk tolerance. These findings clearly demonstrate how airlines can reduce their operational costs.

The integrated choice and latent variable model are particularly attractive to marketing because marketing expenses and subsequent assets are largely intangible, non–product-related attributes (Rust, Ambler, Carpenter, Kumar, & Srivastava, 2004). The recent study of Burke, Eckert and Sethi (2019) is an insightful example in this sense. The model explicitly describes how multiple attributes affect multiple perceived benefits (i.e., the latent variable) and the contribution of each benefit to product utility. In other words, they incorporate into a choice model the assumption that latent perceived benefits mediate the effect of attributes on utility. The authors argument that such benefit-based choice model is able to help marketers to design the positioning of brands based on manageable marketing mix elements (e.g., attributes, price) and ultimately the benefits associated with them. As the work of Burke and colleagues, the current dissertation also incorporates a mediation framework into a choice model. A markedly difference, however, is the conceptual domain of the mediators. Burke and colleagues modeled benefits as mediating variables in the product attributes-product choice linkage, whereas the present conceptual model proposes that social emotions mediate the relation between past efforts of sellers and seller choice.

A special case of the hybrid choice model is the goal-based choice models, in which consumer choices are not only sensitive to goals (i.e., the latent variable), but are determined by them (Pilli, 2017; Osselaer & Janiszewski, 2012). In such perspective, the stochasticity in the choice process emerge from the search for simultaneous and multiple conflicting goals, and the utility of an alternative is the capacity to satisfy an activated goal. A marked characteristic of the goal-driven approach is the presence of two separate but related spaces: an attribute space and a goal space (Dellaert et al., 2018; Swait, Argo & Li, 2018; Osselaer & Janiszewski, 2012). For example, Osselaer and Janiszewski (2012) operationalized a conceptual choice model based on multiple goals and attributes. According to them, product evaluation depends on how much a product attribute is expected to help the achievement of one or more goals weighted by the importance of such goals. Similar to Osselaer and Janiszewski (2012), Swait, Argo and Li (2018) proposed and tested a model that incorporates the role of multiple goals into decision-making; they also assume that i) each goal has a specific weight, and ii) the evaluation of products are done in terms of their ability to satisfy activated goals. Besides, the authors incorporated iii) the adjustment of initial weightings made by consumers as a function to the most achievable goals after the evaluation of the alternatives. After testing it on digital camera

stated preference data, the model enhances the performance in goodness-of-fit and out-of-sample validation predictions, compared to a traditional choice model.

A noteworthy point to make here is on a conceptual difference from goal-based to more general hybrid models. In the later, the latent variables are allowed to vary across product attributes, whereas, in the former, they do not (Burke, Eckert, & Sethi, 2019). Usually, goals are not a function of alternatives and so they are fixed at individual level (e.g., the desire to have a sweet desert does not necessary depend on the availability of sweet deserts).

Although hybrid choice models provide a robust analytical toolkit to integrate unobserved psychological factors and have demonstrated significant benefits for behavioral research (e.g., greater explanatory power, increased understanding of the decision-making process, and novel policy recommendations), past research remains silent in terms of a discrete choice framework that deals with affective constructs. An emotional choice model (i.e., integrated choice model and consumer emotions) is justified by the fact that emotions are ubiquitous in consumer related contexts (Andrade, 2015), and what consumers feel do affect the performance of marketing investments (Ou & Verhoef, 2017). To address this relevant topic, the present dissertation explores the role of emotions on decisions embedded into interpersonal contexts using a hybrid choice model.

2.2 FUNCTIONS OF (SOCIAL) EMOTIONS IN DECISION-MAKING

The role of consumer emotions in judgment and decision-making literature was historically treated as a background variable, of contextual role (e.g., Kahn & Isen, 1993), or even as a harmful process for the rationality (Elster, 1999). The idea that emotions counter to reason dates to Plato (Rachlin, 1989), and it is present in many situations in daily life; a notable example is the myth of the dispassionate judging in many legal systems around the world (Barrett, 2017). Moreover, affective states are often seen as a separated, independent system from the cognitions. This binary view has resulted in the so prevalent "dual-system" models in psychology and behavioral economics (e.g., Loewenstein & O'Donoghue, 2004; Kahneman, 2011).

More recent research, however, have shown that judgments based on emotions generate more consistent preferences (Lee, Amir, & Ariely, 2009; Dijksterhuis, Bos, Nordgren, & van Barren, 2006; Nordgren & Dijksterhuis, 2009), increase decision satisfaction (Darke, Chattopadhyay, & Ashworth, 2006), make better predictions (Pham, Lee, & Stephen, 2012),

and achieve higher decision-making performance (Seo & Feldman, 2007). Furthermore, there is no neural instantiation that supports an accurate model in which affect and reason play distinct and independent roles in mind (see Lempert & Phelps, 2016, for one review). Behavioral researchers have, therefore, given a more central and positive role to emotions to the point that "a theory of choice is incomplete unless it includes the role of emotion in judgment and decision-making" (Osselaer et al., 2005, p. 343).

Emotions are defined as consciously felt experiences characterized by valence and arousal, cognitive appraisal, and action readiness (Cohen, Pham, & Andrade, 2008). Furthermore, emotions may be divided into two categories according to the moment that the consumer experiences it: immediate emotions, when an emotion is felt during the decision process, and expected or anticipated emotions, that is, the cognitions about future emotions, which would emerge when the outcomes of a decision materialize (Rick & Loewenstein, 2008). Immediate emotions may be still divided into other two extremities (i.e., integral and incidental), according to the source of the evaluation target. Integral emotions are intrinsically related to the choice at hand, whereas incidental emotions are extrinsically related to sources such as the environment (Cohen, Pham, & Andrade, 2008). As a final note on these definitions, mood represents a distinct affective state because, when compared to specific emotions (e.g., guilt, pride), it lacks a clear source, tends to last longer, and appears gradually (Andrade, 2005). And the core affect is a neurophysiological state which can be described by the valence and arousal dimensions (Kranzbühler, Zerres, Kleijnen, & Verlegh, 2019).

Although many economists understand that the role of emotions is external to the scope of the discipline, there is no conceptual inconsistency in the idea that expected emotions integrate into the economic utility concept (Rick & Loewenstein, 2008). The traditional economic models of decision-making consider that consumers trade-off product attributes and choose the product they expected to result in the highest utility (a measure of desirability of an outcome). This utility could be processed in hedonic terms – for instance, individuals' beliefs about the hedonic quality that will result from their choices. Therefore, the desirability of an outcome would reflect the valence and intensity of an emotional experience, such as joy, fascination, anxiety, sadness, and so on (Kahneman, Krueger, Schkade, Schwarz, Stone, & 2004). Of course, if individuals seek pleasure (or avoid pain) in their decisions, the evaluation process would need to consider the hedonic potential of the alternatives, and make predictions about the package of pain and pleasure that would be derived from each alternative. In this case, the hedonic treadmill issue would be at stake (Kahneman et al., 2004). Also, such

conceptualization should reflect the idea that a hedonic desirable state varies from person to person as well as from context to context (e.g., if feeling calm (with energy) is feeling good, then a tea (coffee) would have higher utility; Mogilner, Aaker, & Kamvar, 2013). Although the hedonic utility concept was overlooked in the economic literature, several works have recently placed it in a level of "standard of policy evaluation" and raised "the possibility of basing economic appraisal on the measurement of experienced utility (utility as hedonic experience) rather than decision utility (utility as a representation of preference)" (Kahneman & Sugden, 2005, p.161).

Regarding the immediate emotions, the idea that consumers derive utility from integral or incidental emotions would be more conceptual problematic to an economic model, because the utility is operationalized as a consequence of the decision rather than the factors experienced during the decision itself, unrelated to their consequences (Ettema, Gärling, Olsson, Friman, & 2010). However, there is another role for what consumers feel during a decision process: rather than deriving utility from it, consumers use emotions as information about the word, and to refine their evaluations (Pham, 2007). In the McFadden's framework (McFadden, 1986), emotions such as guilt or pride would enter into the consumer "black box" as latent variables which influence preferences and choices. In the conceptual model, I adopt such perspective for emotions.

The theory of "affect-as-information", also known as the "How-do-you-feel-about-it?" heuristic, holds that individuals use emotions to evaluate objects and make decisions (Pham, 2007). They inspect their feelings to see "how they feel" about a target being evaluated (e.g., "Does it feel good or right? Or Does it feel bad or wrong?"). Pleasant feelings are interpreted as an evidence of satisfaction or well-being, whereas unpleasant feelings are interpreted as evidence of dissatisfaction or misery; and calm versus excitement feelings can serve as information for urgency or importance (Storbeck & Clore, 2008).

Determinants of the diagnosticity of feelings may be divided into external (e.g., the characteristics of the consumption at hand) and internal factors (e.g., the consumer's trust in feelings). For instance, consumers use their emotions when they are representative of the object being evaluated. In their seminal works, Schwarz and Clore (2007) show that the influence of incidental moods on judgments are, in part, due to the fact that people relies on their momentary feelings as real sources of information. However, when the feelings as a source of information is discredited, the effects of the incidental mood disappear. Also, feelings are used if they are relevant to the situation, as it is typical when consumers are guided by intrinsic, hedonic

motives. In an experimental study, Pham (1998) manipulated mood (positive vs. negative) and motive (hedonic vs. instrumental) and showed that the effect of mood on decision is moderated by the type of motive. Specifically, emotions affect decisions on the hedonic consumption condition, but not in the instrumental one, because feelings are a relevant information source in hedonic situations but not in instrumental ones.

On the internal side, people use their feelings if they trust them. These trust in feelings is an idiosyncratic issue, as it reflects the idea that consumers have different levels of trust and they will use them as greater were such confidence. Avnet, Pham, and Stephen (2012) manipulated trust in feelings and showed that participants in the high trust in feelings condition invoke more feelings to justify their assessments than those in the low trust in feelings condition.

Recently, researches have brought new light into the affect-cognition connection. In particular, they defend that affective reactions are not only a source of information about the world and objects (as the "affect-as-information" approach states, Frijda, 1988), but also confer value to the one's own thoughts and inclinations. In such view, emotions would simply reflect or feedback what is most accessible on current mental content (Clore & Schiller, 2016). A notable example on such perspective is the relation between affect and the global-local focus research. Many past studies have found that happy feelings broader attention (e.g., Fredrickson & Branigan, 2005), while negative ones narrow it (e.g., Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & van Jzendoorn, 2007), suggesting that the positive and negative affect trigger fixed effects on cognitive style.

However, an alternate explanation for past results is that positive feelings confer positive value on thoughts, playing a "go" role, whereas negative feelings inhibit cognitive inclinations, playing a "stop" role. Because a global focus is dominant processing style for most people, in past research, positive and negative valence may merely have given positive and negative information on the most reachable "global way of viewing the world" (Huntsinger, Isbell, & Clore, 2014). According to the Huntsinger, Isbell, & Clore's review (2014), other research findings that are consistent with the notion that the positive affects validate while negative one invalidates have appeared in a variety of domains, such as moral reasoning (e.g., Valdesolo & DeSteno, 2006), persuasion (e.g, Briñol, Petty, & Barden, 2007), and goal adoption (e.g., Fishbach and Labroo, 2007). On the latter, Fishbach and Labroo (2007) shows how the valence (happy vs. unhappy) interacted with an accessible goal (self-improvement vs. mood management) on a cognitive task. Consistent with the affect as feedback hypothesis, when self-

improvement goal is activated, participants in the happy (vs. unhappy) condition work harder on the task because it was expected to further their state. When mood management goal is activated, however, people in the happy condition decline from the task because it is incompatible with desirable state. These results suggest that positive affect signals a person to adopt (or further seek it) a goal while negative affect does a person to reject that. Huntsinger, Isbell, & Clore (2014) conclude that "the relationship between affect and cognition is not fixed but, instead, is highly malleable", in the sense that it can be altered or even reversed through different contexts.

In sum, negative affect signal the presence of a problem, turning on a red light, whereas positive affect signals a safe and benign situation, turning on a green light. Presumably, affective states increase the efficiency of judgments that otherwise could be slow and effortful. As illustrated by Clore and Schiller (2016, p.533), emotions in decision-making "function as an adjective, because, like light, affect is seen only in reflection, when it illuminates something else". The affect-as-cognitive-feedback perspective is particularly important for this dissertation because it offers a theoretical foundation to the flexible relation between social emotions and preferences that was found across the current studies.

Heretofore, the role of emotions on cognitions was discussed in a broad sense. A final remark in this section focus on a specific function of emotions, the "social survival function" (Keltner & Haidt, 1999). Emotions are said to be functional when they help individuals to overcome problems. It is undeniable that living in a society is a complex challenge, and the survival in such environment depends, in the great part, to the balance between building social bonds and overcome social exclusion or loss of power (Griffiths & Scarantino, 2009). An extensive literature has linked the ability to perceive accurately, appraise, and express emotions as a fundamental adaptatively feature (Fischer & Manstead, 2016; Keltner & Haidt, 1999). Indeed, many scholars argue that emotions are constructed socially throughout ongoing interpersonal relationships (Smith & Mackie, 2016; Fischer & Manstead, 2008).

According to Fischer and Manstead (2016), social emotions[1] play a key role on the pursuit of simultaneous yet contrasting social goals: distancing and affiliating. The "affiliating function" of emotion refers to the idea that emotions help individuals to achieve and sustain well-being while living in groups and to build and maintain valuable relationships by means of

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[1] Social emotions, also known as intergroup emotions, are emotions that arise when people identify with a social group and respond emotionally to events or objects that impinge on the group (Smith & Mackie, 2016).

cooperation. Human beings are social animals with prosocial motivational-emotional attachment systems who need to be loved and to meet or exceed social expectations to gain social approval (Buck, 1988; Emmons & McCullough, 2004). For instance, the acting of caring can generate pleasure (Emmons & McCullough, 2004), and the failure to repay obligations can lead to guilt (Dahl, Honea, & Manchanda, 2005).

In contrast, the "distancing function" of emotion refers to the idea that emotions help individuals to distance the self from others by means of competition for social status or power. In a group, humans need to recognize, avoid, and sometimes excel others who might impose a threat to them and that cannot be attained by means of cooperation. It must be done by competition, even if it costs the welfare of others. For instance, anger (which is, in most cases, triggered by another person) may motivate individuals to confront, attack, or criticize (Fischer & Manstead, 2016). Table 1 classifies some social emotions into their prevalent social function.

Table 1 – Illustrative Social Functions of Some Emotions

Affiliation function	Distancing function
Happiness	Anger
Love	Hate
Gratitude	Contempt
Admiration	Disgust
Sadness	Social fear
Guilt	Pride about the self
Shame	Schadenfreude
Regret	Disappointment in others

Source: Fischer and Manstead (2016).

In sum, social emotions such as guilt and pride give light to judgments and help individuals to decide when it is worth to narrow relational bonds. In mostly relational marketing contexts, individuals make such trade-offs not on "one point in time" customer-firm encounters, but on ongoing exchange relationships. Therefore, social emotions typically help consumers to evaluate reciprocation versus defection options. In the present dissertation, anticipated guilt and pride are integrated into the conceptual model about the defection decision because they identify the two contrasting yet simultaneous interpersonal goals (i.e., affiliation and distancing function).

2.3 WHY CUSTOMERS CHOOSE TO PAY BACK (OR WHY THEY CHOOSE TO TAKE THE MONEY AND RUN)

The principle of reciprocity is one of the most fundamental questions surrounding social relationships (Fehr & Fischbacher, 2003). Scholars have demonstrated that, after receiving a valuable benefit, the probability of an individual act costly to confer economic benefits back toward the benefactor increases. Indeed, in relationship marketing literature, reciprocity is considered an essential feature, at the core of discipline (e.g., Palmatier, Jarvis, Bechkoff, & Kardes, 2009; Bagozzi, 1995), "since without any reciprocal basis, there would be no relational connection" (Tadajewski, 2009, p.10). Why people reciprocate is a complex issue, and many perspectives have been proposed to address it.

For instance, one useful taxonomy classifies relationships into communal and exchange relationships. The former is when individuals give to each other mainly as a result to perceived needs, concern for the welfare of others, and ignore the probability of receiving benefits in return. In contrast, the latter is when they give benefits with the expectation of receiving a comparable benefit in return, as soon as possible, much as a "tit-for-tat" orientation (Batson, 1993; Clark & Mills, 1979). Business relationships are considered an exchange relationship (Peterson, 1995).

Another taxonomy for the reciprocity topic could classify it according to an orientation sense. In that case, past research would be divided into consummatory (i.e., intrinsic) versus instrumental (i.e., extrinsic) (Alderson, 1957). Consummatory motives underlie consumer behaviors that are intrinsically rewarding (e.g., to reciprocate because of the resulting feelings of pleasure), mostly hedonic in nature, whereas instrumental motives underlie behaviors that are performed to achieve some extrinsic goal (e.g., to cooperate because the partner is a valuable agent for a future business contract). Next, some examples commonly studied under these classifications are discussed.

Gratitude can be considered a intrinsic motivation construct. Gratitude has been defined in many different ways, such as an emotion, an attitude, a moral virtue, a habit, or personality trait (for a review, see McCullough, Emmons, Kilpatrick, & Larson 2001). In line with prior studies in the marketing discipline, however, gratitude is "the emotional appreciation for benefits received, accompanied by a desire to reciprocate" (Palmatier et al. 2009, p.1). As this definition suggests, gratitude has an affective component, the voluntary, positive feelings experienced by a recipient of a favor toward her or his benefactor. In this sense, feelings of gratitude are always other-directed (Emmons & Crumpler, 2000), since one cannot feel

gratitude to oneself. Furthermore, gratitude varies as a function of the recipient's perceptions of the benefactor intentions, the cost to the benefactor in providing the benefit, and the value of the benefit for the recipient (Palmatier et al., 2009; Tesser, Gatewood, & Driver, 1968).

Similar to gratitude, indebtedness, the state of obligation to repay another (Schlosser, 2015; Greenberg, 1980), may also be considered an intrinsic motivation for reciprocating. However, customers would reciprocate in order to avoid the discomfort to owe someone rather than to approach the pleasure generated by helping and caring for others (or the pain generated by ignoring them). In this sense, indebtedness refers to a more exchange-focused construct, because this highly "arousal and discomfort" emotional state makes individuals alert to opportunities to eliminate it (Watkins, Scheer, Ovnicek, & Kolts, 2006).

There is a significant debate about the differences between gratitude and indebtedness (e.g., Pelser, Ruyter, Wetzels, Grewal, Cox, & van Beuningen, 2015; Mathews & Green, 2010; Tsang, 2006; Watkins, Scheer, Ovnicek, & Kolts 2006). For instance, indebtedness is usually associated with self-reported avoidance motivations, whereas gratitude is with self-reported prosocial ones (Tseng, 2006; Gray, Emmons, & Morrison, 2001). Accordingly, Morales (2006) proposes that both feelings of gratitude and indebtedness mediate reciprocation intentions toward firms. Further, she proposes that consumers experience gratitude even when the extra effort is not directed to them, whereas indebtedness is only experienced when the extra effort is personally appealing because it creates an imbalance in the costs and benefits of the consumer versus the firm. In an exchange context, consumers know that their patronage is a result sought by marketers, and then they consider the act of reciprocation as a norm to restore equity. This "tit-for-tat" mentality in indebtedness has been found in other situations, such as when individuals try to return a favor of equal cost (Greenberg, 1980), or when feelings of indebtedness did not vary as a function of the benefactor intentions (Tsang, 2006). On the other hand, gratitude enhances cooperative behavior even at the expenses of individual gains, or if the other person is a complete strange (Dickens & Williams, 2010). As a final example, a marketing relationship study fortifies the idea that indebtedness does not expand communal principles: Pelser et al. (2015) conducted a multi-wave field study and showed that indebtedness damages commitment to a supplier as well as the reseller's sales effort, whereas gratitude attenuates these negative effects, offering a buffer against indebtedness' negative effects.

Further, marketing has also studied reciprocity in terms of a more instrumental, extrinsic reward perspective, such as goal attainment. In such perspective, customers cooperate or pay back the benefits received on the basis of expected positive exchange outcomes (i.e., the ratio

of costs to benefits). Truly, Bagozzi (1995, p.275) have made conceptual arguments in support of that, as the following excerpt illustrates:

> "The most common and determinative motive for entering a marketing relationship is that consumers see the relationship as a means for fulfillment of a goal to which one had earlier, and perhaps tentatively, committed. That is, people have goals to acquire a product or use a service, and a relationship then becomes instrumental in goal achievement. One chooses to enter a new relationship, or to maintain an ongoing one, because it is seen as facilitating, and perhaps even necessary to, goal attainment.".

Following past studies, goals are defined as a motivational, cognitive construct that determine behavior (Osselaer & Janiszewski, 2012). Specifically, they are cognitive structures that represent desired end states, influencing the choice process over the focus on higher psychological processes – such as attention and memory – for your achievement (Weber & Johnson, 2009). In the psychology and consumer behavior literature, the topic has been developed with the description of psychological processes as well as the proposition of taxonomies (e.g., Austin & Vancouver, 1996). To provide a background to the present discussion, three taxonomies on consumers goals are discussed in the context of marketing relationships.

First, goals may be classified into consumption, criteria, or process (van Osselaer et al. 2005). Consumption goals would emphasize that relationships are not evaluated as a function of their characteristics (e.g., interaction frequency), but as the benefits derived from entering into it, and the ability of such benefits to meet the customer needs (e.g., performance improvement). Criterion goals would emphasize the idea that customers are unable to extract maximum utility from their choices (Simon, 1955), and so they assess their judgment against criteria such as their ability to justify the decision for other people (Simonson, 1989). Process goals would emphasize that the decision outcome is not the only source of satisfaction, because customers also want to avoid negative emotions arising from difficult trade-offs (Luce, James, Bettman, & Payne, 2001). Thus, customers may prefer to stay in a relationship in order to routinize their choices (Sheth & Parvatiyar, 1995).

Second, it is useful to address the instrumentality of relationships according to its abstraction level. In choice modelling literature, functional goals are typically associated with the product attributes (e.g., more space in disk in order to store more pictures), whereas non-functional goals represent more abstract goals (e.g., record memories) (Dellaert et al. 2017). In this taxonomy, building a business relationship in order to provide a superior service could be a functional goal, whereas social belonging would be more a non-functional goal. Third, goals

can be characterized by the valence of the final state at hand: approach, when the final state is desired, or avoidance, when the final state is undesired. (Osselaer & Janiszewki, 2012).

Taken together, these taxonomies suggest that there is a considerable diversity in these internal representations, which vary according to the final state, level of abstraction, or valence. Also, it is evident that there would be multiple goals operating at the same time in trade-offs between continuation and defection. In accordance with Bagozzi (1995) and Reynolds and Beatty (1999), the proposed conceptual model addresses the customer preference for reciprocation (versus defection) in terms of the instrumentality of a marketing relationship to achieve personal goals. In this line, the affective states experienced by consumers during defection decisions would reflect the inclinations about the relational value of a seller.

Past researches support this proposition. For instance, Converse and Fishbach (2012) show that feelings of appreciation toward a benefactor are moderated by benefactor's instrumentality in facilitating active goals. It is because beneficiaries appreciate their helpers more before than after tasks. Nelissen, Leliveld, Van Dijk, and Zeelenberg (2011) investigated how anticipated fear affect offers in economic games (i.e., ultimatum bargaining). The manipulation of the concerns for rejection led participants to make more generous offers because they feared rejection. In other words, the fear made participants aware of the imminent possibility of getting nothing. Past studies have also demonstrated that increasing the expectations about reciprocation decreases the future cooperation intentions. Watkins, Scheer, Ovnicek, and Kolts (2006) measured gratitude across three benefactor expectation conditions (expectation on reciprocation: none versus moderate versus high). They found that participants reported be less likely to help the benefactor in the high expectation conditions. These results suggest that the emotional appreciation diminishes with the salience of the benefactor selfishness, possibly because it signals opportunistic behavior and low benefits in the future. Nelissen (2014) proposes that the amount of experienced guilt vary as function of others utility. In three experiments within social exchange context, the author manipulated the relational utility (i.e., the utility of another person for the attainment of personal goal(s) through social interaction) of other participants throughout how much money they had for future transactions; the capacity of them to the attained of a personal goal; and how dependent participants were for performing a task. When a participant made an interpersonal transgression toward someone from the high relational utility group, participants experienced more guilt compared to participants in the lower relational utility groups. To conclude, DeSteno (2015, p.81) states that "the compassion we feel for others need not be a function of the objective level of distress or

suffering they experience, but rather stems from a subjective appraisal of it — one modulated by nonconscious processes that index the likelihood that the sufferer in question is a good bet to return the favor".

2.4 THE CONCEPTUAL MODEL

In the last sections, I provided theoretical context for the conceptual model. Despite the discrete choice framework that incorporates aspects of behavioral theories into the random utility model, I presented the two building blocks that underly the conceptual model. First, the role of emotions as a valuable source of information in interpersonal contexts. Second, prosocial behaviors were discussed in the context of marketing relationships. The remainder of this chapter details the conceptual model and presents the research hypotheses.

2.4.1 Definitions

Figure 1 depicts the present conceptual model; it replicates the core of a traditional discrete choice model (the lower part in Figure 1), in which preferences for alternatives are a function of their attributes (e.g., price, quality) and decision-maker characteristics (e.g., income, age) (McFadden, 1986). In traditional choice models, preferences can be represented by a utility function (a unidimensional latent measure of outcome desirability that follow a specific decision rule) that researchers estimate from data on observed choices. In such models, decision-making process is treated as a "black box", because choice behavior is simply a set of preferences ranking of all available alternatives.

In accordance with Ben-Akiva et al. (2012), however, the current framework proposes that consumer preferences are also subject to process and context of the decision-making. Process refers to the steps that individuals follow in decision making, and may include psychological process, such as attitudes and emotional states that refine preferences. On the other hand, context refers to factors affecting the process, mostly social networks, there understood loosely as consisting of all other individuals. Process and context are represented in the conceptual model by "past efforts of the current seller" and "social-emotional process", respectively (the upper part in Figure 1).

Figure 1 – Structure of the Conceptual Model
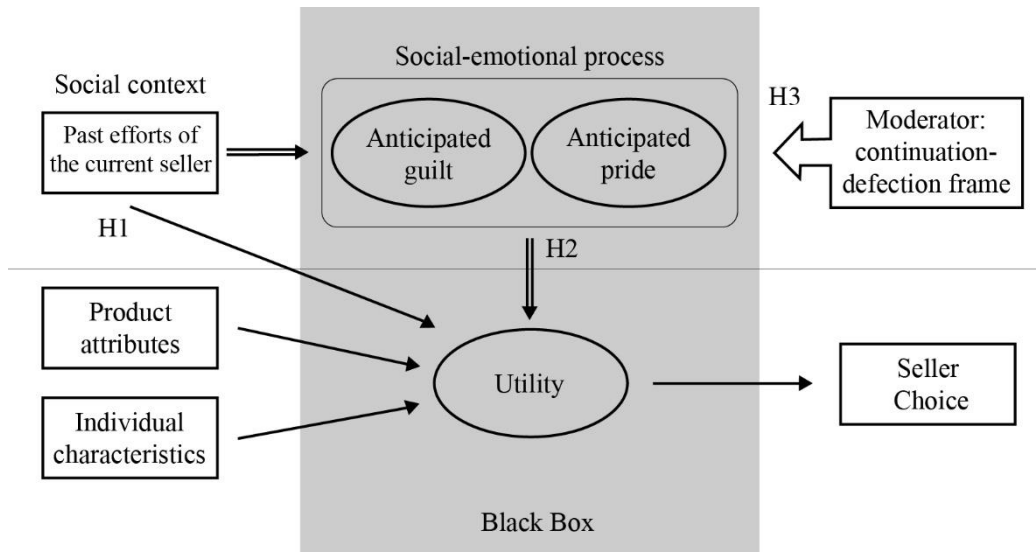
Note. 1: The alternatives of the discrete choice framework are continuation in a relationship or defection, the latter being the reference category. The indirect effect of past efforts (H_2) are depicted by the double arrows. Latent variables are represented by ellipses.
Source: The author (2020).

The "past efforts of the current seller" are defined as discrete events, social interactions, in which a seller acts costly in order to provide a valuable benefit to the customer, such as the adaption of policies or the provision of small favors (Palmatier et al., 2009; Morales, 2006). Benefits received in an ongoing relationship typically include time saving, convenience, companionship, or better decision making (Palmatier, Dant, Grewal, & Evans, 2006; Reynolds & Beatty, 1999). Past research on relationship marketing and expectancy-disconfirmation support the distinction between product versus relational mental models (e.g., Harmeling, Palmatier, Houston, Arnold, & Samaha, 2015). For instance, product expectations typically comprise the immediate balance of costs to benefits (centering the attention on the elements of the transaction), whereas relational expectations are formed in the realm of "governance and norms, exchange partners' understandings of mutual obligations, and predictions of stewardship" (Harmeling et al., 2015, p.41).

The "social-emotional process" are anticipated emotions, the beliefs about one's own emotional responses to future outcomes (Böhm & Pfister, 2008; Loewenstein & Lerner, 2003), specifically guilt and pride. Pride "occurs when one makes a comparison or evaluates one's behavior vis-à-vis some standard, rule, or goal and finds that one has succeeded", whereas "guilt occurs when such an evaluation leads to the conclusion that one has failed" (Lewis, 2008, p.742). Working from a functionalist perspective, social emotions play key roles in contrasting

goals in social relations (Fehr & Fischbacher, 2003; Nesse, 1990). For several reasons, guilt and pride[2] stand as promising candidates for such role. They are considered opposite social emotions (Emmos & Mccullough, 2004) while share so many characteristics that call into question if they could not reflect a more general construct (e.g., a social-emotional spectrum for interpersonal relationship assessment). For instance, besides being associated to affiliation (cooperation) and distancing (competition) functions, both are self-conscious emotions because they are elicited by cognitive processes, evaluations against some standard, rule, or goal that result in failure (i.e., guilt) or success (i.e., pride); both occur in response to internal attributions in which the self is the cause of an event; and both refer to a specific, particular behavior (Lewis, 2016; Soscia, 2007; Baumeister, Stillwell, & Heatherton, 1994).

Consistent with customer relationship management literature (Henderson, Steinhoff, Harmeling, & Palmatier, 2020; Hollmann, Jarvis, & Bitner, 2015), the "utility of the defection" is defined as the utility that customers expect to derive from decreasing or ceasing usage of a firm's offerings. As this definition indicates, the conceptual model focus on specific decisions in which customers trade-off between the continuation in an ongoing exchange relationship with a seller and defecting to an alternate one. First-time adoption decisions are not addressed because there would be no opportunity to significant value-creation mechanisms of relationships (e.g., adapting, investing). Moreover, since the framework describes situations in which it is likely that exist some degree of past effort, the continuation option ultimately captures the act of reciprocate benefits received. However, defection is chosen as the reference alternative and so behavioral findings are expressed relative to it. The adoption of a reference or focal alternative is a key element of the conceptual model, because the role of social emotions on the nomological network interacts with the metal focus (i.e., continuation vs. defection). Also, focusing on defection rather than on continuation has a practical reason, that is, defection is a discrete event, switching behavior, while continuation is more a maintenance of a status quo.

In sum, the utility of defection (vs. continuation) from marketing relationships is shaped by relational- and product-related attributes. The relational efforts affect customer preferences and this effect is mediated by social emotions (the mediating property), specifically anticipated guilt and pride (the multidimensional property). Also, the informational value that social

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[2] It is worth noting that there is an enduring claim in literature that pride has two separate facets: "authentic" (i.e., pride as a result of a truly achievement) and "hubristic" (i.e., pride as arrogance) (Lewis, 2016; Williams & DeSteno, 2009). The conceptual model focus on the authentic one.

emotions confer to preferences depend on the focal alternative (malleable property). Next, these paths are formally hypothesized and later tested on empirical data. Note that the traditional choice model linkages among explanatory variables and customer preferences are not hypothesized but empirically replicated.

2.4.2 Hypotheses

In the traditional discrete choice framework, consumers evaluate a set of mutually exclusive and collective exhaustive alternatives and select the alternative with the highest utility among those available at certain time. Typically, alternatives are products (e.g., digital camera) or services (e.g., transport), and the utility of such alternative equals the sum of the utilities of its multiple attributes (e.g., price, quality, travel time). In the present conceptual model, this framework is extended to decisions in which alternatives are embedded in marketing relationships – one or more of alternatives have created value through social interactions. Specifically, the alternatives are continuation in an ongoing customer–seller relationship or defection to an alternate seller. In a decision like that, it is proposed that the expected value of the current relationship should be incorporate into the decision problem. That is, the prediction that certain benefits will be experienced over time, such as facilitating the achievement of personal goal(s) through social interaction (Nelissen, 2014).

Many tasks in social living are more efficiently attainment through cooperation (Nesse, 1990). According to extant marketing research (e.g., Samaha, Palmatier, & Dant, 2011), customer-seller cooperation is the coordinated, complementary actions between parts in order to achieve mutual goals. Seller cooperation creates value for customers because sellers who exhibit cooperative behavior are more flexible and willing to adapt to change requests, providing more satisfactory solutions to personal needs than competitors. On the other hand, seller cooperation increases the probability that the customer cooperates either (i.e., reciprocate), such as searching only in a limited way for other alternatives or revealing strategic information to improve the seller's understanding of their needs. Also, customers may reward firms' extra effort through an increment in purchase intentions, share of wallet, or shopping expenditures (Wetzel, Hammerschmidt, & Zablah, 2014; Palmatier et al, 2009). According to equity theory (Adams, 1965), ongoing relationships are markedly by perceptions of benefits relative to costs. In an exchange context, consumers know that their patronage is a result sought by marketers, and then they consider paying back as a norm to restore such equity (Morales,

2005). Otherwise, the relationship will not be valuable for the seller, being motivated to terminate it.

In social exchange situations, there is a strong incentive to cheat by both parts; for example, in a marketing relationship context, a seller can make a small favor with the intent to persuade a customer to spend more, or a customer can promise a big contract that never comes. Thus, biologist and evolutionary psychologists speculate that a self-other trade-off requires a capacity to differentiate cooperators from defectors, because cooperation creates more economic benefits in the future than defection to the extent that another part is cooperating as well (e.g., Cosmides & Tooby, 1992). This capacity, nonetheless, is key when the defection is the dominant choice independent of another person choice. When repeated valuable benefits are received, the individual "comes to intuitively believe in the desirability of mutual cooperation" because reciprocity is likely to exceed the rewards of selfishness (Kiyonari, Tanida, & Yamagishi, 2000), reducing the utility for defection.

H₁: As the past efforts increase, the lower is the utility of defection.

Defection decisions impose hard compromises to balance. For instance, individual must calculate the expected value (consequences x probability) that would be derived from certain products, restricted to a personal budget, as well as infer another value. In such context, extra efforts and work may signal cooperative intentions in seeking mutual goals, a distinct source of utility from that of product attributes. Self-other trade-offs elicit a distinct, social-emotional process to evaluate them, and social emotions should be part of that, because they reflect inclinations about social encounters and ultimately other human intentions (Burnett, Bird, Moll, Frith, & Blakemore, 2009). The idea that a social-emotion process mediates the effect of relational utility on customer preferences finds support in consumer decision-making research (e.g., Andrade & Cohen, 2007). Furthermore, there are at least four specific motives to sustain that in the current context.

First, since emotions function mostly as heuristics, their informational value increases when the decision is not easily solved by typical judgment process (Raghunathan & Pham, 1999), as it is the case for relational evaluations (Harmeling et al., 2015). Second, according to the affect-as-information theory, consumers use their feelings as a source of information when these feelings are relevant to the evaluation target at hand (Pham, 1998). That is, consumers rely upon social emotions in the assessment of relational value because social emotions are

relevant for such context. Third, an interpersonal relationship is rarely a neutral process and that consumers can experience strong emotions over the course of its development or related decisions (Fischer & Manstead, 2016). Fourth, previous research finds that relationship marketing investment effects are mediated by social emotions, such as gratitude (e.g., Harmeling et al, 2015; Wetzel, Hammerschmidt, & Zablah, 2014; Palmatier et al, 2009; Morales, 2005) and indebtedness (e.g., Pelser et al, 2015; Morales, 2005), demonstrating the key role of affective states on behavioral outcomes.

As suggested by the social function of emotions, guilt and pride may operate in parallel to counterbalance each other's effects (i.e., affiliation versus distancing). More specifically, the negatively valenced emotion guilt may be linked to prosocial behavior and, when anticipated, operate to avoid transgressions that could poison valuable relationships (Nelissen, 2014). Indeed, guilt is sometimes regarded a moral emotion because it pressures individuals to put the concerns of others above their own (Haidt, 2003), and its expression is regarded as low in status and reflects self-blame (Tiedens, 2001). Thus, guilt may expose weak or vulnerable sides of the self, increasing the opportunities to exploitation and would seem as disadvantageous in some situations (Nesse, 1990). Due to this issue, the conceptual model proposes that positively valenced emotion pride should exerts a counterbalancing effect in favor of the self, avoiding the potential loss of power or status or even economic benefits in relationships based on emotional attachments. Since pride (guilt) implies not only greater social distance (social affiliation) but also self-elevation (other-elevation), pride and guilt manage the adverse effects of each other through opposite emotion regulations (Fischer & Manstead, 2016; Tooby & Cosmides, 2008; Fredrickson 2001). Past studies show that consumers are able to experience opposite emotions simultaneously or in very close spaces of time (e.g., Hemenover & Schimmack, 2007), providing theoretical support for the application of a psychological process such that.

H$_2$: The effect of past efforts on the utility of defection is mediated by anticipated guilt and anticipated pride simultaneously.

The last hypothesis of this dissertation addresses the direction of influence and the boundary conditions of anticipated guilt and pride in the defection decision framework. It is proposed that the social function of an emotion (i.e., affiliating with another or distancing from another) and, in turn, the relation with its antecedents and consequents in the conceptual framework does not depend solely on appraisals and contextual factors of the particular social

emotion. Rather, it also depends on how the decision is framed, that is, whether it is a continuation or a defection problem. This argument is in accordance with the affective-as-feedback perspective (Huntsinger, Isbell, & Clore, 2014).

Valence and arousal are the core dimensions of any affective experience (e.g., Lang, Greenwald, Bradley, & Hamm, 1993), and the present hypothesis focuses on the former to propose that social emotions do not have a fixed connection with consumers preferences on defection versus staying decisions. It is recognized that ignoring the underlying appraisal patterns of emotions may sacrifice specificity and explanatory power in some situations (Kranzbühler, Zerres, Kleijnen & Verlegh, 2019). However, valence underlies all emotions and the concept of positive versus negative can be relative in some respects. For example, anger is a social emotion signaling positive value on the angry individual's point of view and negative value on the other individual's point of view; thus, what matters for the malleability principle is the information value that an emotion confers and not the ordinal meaning of the valence (Huntsinger, Isbell, & Clore, 2014).

Applying the affective-as-feedback rationale to the present framework, the conceptual model reasons that valence regulates individuals' perceptions of interpersonal decision utility. Specifically, a positive emotion functions as the signal by which consumers perceive superior decision utility for a self-other trade-off. A positive emotion confers positive value or for self (i.e., defection) or for other (i.e., cooperation); it depends on what is most accessible in mind (Huntsinger, Isbell, & Clore, 2014). For example, pride signals greater utility for defection (continuation), functioning as distancing (affiliating) from another, when the frame of the decision is defection (continuation). In contrast, a negative emotion signal lower decision utility for the self-other trade-off and the decision frame determines whether it is toward cooperation or defection.

The idea that valence confers value to others finds support in the research of Chang, Algoe, and Chen (2016), which provides evidence that valence signals agency (i.e., perception of one's capability to do and intend) to the self and others. Specifically, the more positive or the less negative a person's emotional state is, the more agency the individual will confer to herself, or others will attribute to her. Following logically from this perspective, the current framework proposes that an emotional valence not only acts as "green light" or "red light" to self and others' capability and intentions, but also about others' utility for the achievement of personal goals. Although both ideas are correlated, agency and interpersonal relationship value are distinct constructs. First, relational utility is a social concept, in the sense that it occurs only

between persons; in contrast, agency may occur within a person. Second, relational utility presumes other's agency (e.g., one cannot be useful to satisfy a need without the capability and intend to do it), but agency does not presume utility in the focal experience or task (e.g., one can be very capable in doing something, without a clear economic value for him or others).

In sum, the role of a social emotion in an interpersonal decision is not fixed, but malleable and context-dependent; whether guilt or pride confers negative or positive value for continuation or defection depends on which of the two had been primed (Huntsinger, Isbell, & Clore, 2014). Although the affect-as-cognitive-feedback focus and explain the connection between emotions and preferences based on valence, the present hypothesis is perfectly consistent with the social survival perspective, since "each emotion has a prevalent social function, based on the individual's goals in a social situation (affiliating with another or distancing from another). It is possible, however, that a single emotion can serve both social functions, depending on the context and taking the time frame into account." (Fischer & Manstead, 2016, p.424).

H3: When positive (negative) emotions are high, consumers confer greater (lower) decision utility to the framed alternative in the self-other trade-off.

3 OVERVIEW OF RESEARCH

Three studies were used to document the defection decision framework and to test the hypotheses. Together, they collected data from 2,085 people from a commercial online panel (Study 1 = 833 participants; Study = 956 participants; Study 3 = 296). Across these studies, I manipulated social interactions with a seller in order to examine how it affects the utility of alternatives and the mediating role of anticipated social emotions in such process (Study 1). Also, I showed that the social function of an anticipated emotion depends on the way that the decision is framed (Study 2). Finally, previous findings are extended to a full factorial design, in which integral emotions are interacted by decision frame to relate their influence on choice (Study 3).

In Study 1, participants were randomly assigned to one of the two conditions (past effort: absent vs. present), in which they interact with an insurer agent and received or not a benefit (Part I); after, they had to trade-off product attributes and choose between continuation and defection in a discrete choice task (Part II); then, they rated their social emotions (i.e., guilt and pride) anticipated during the decision (Part III), and finally answered sociodemographic questions (Part IV). Study 2 replicated Study 1 with only one variation: rather than framing anticipated pride toward defection, in Study 2, anticipated pride was framed toward continuation. In both studies, guilt and pride were measured after decisions, meaning that, in practice, emotions had no causal effect on behavioral outcomes. They were "just" own cognitions reflecting the expected emotional response for an available act of decision-making. Because of this, Study 3 manipulated the valence of integral emotions (positive versus negative) along with the decision frame (continuation versus defection), and observed the customer choices.

Ten models (four confirmatory factor analysis and six choice models) were used to examine the hypotheses and the nomological validity of the conceptual model; they are presented in Table 2. Models 1a-3a focused on the latent variables of the conceptual model. After being validated, these latent components were integrated into the discrete choice model, through the hybrid choice framework (Models 1b-3b). Finally, a latent class and latent variable model (Model 1c) was run in order to demonstrate the insights that the conceptual model can provide. Study 2 replicated the selected model from Study 1 (i.e., Model 2b) to demonstrate how malleable is the connection between affect and preferences in choice situations; that is, a different decision frame can alter the nomological role of an anticipated social emotion, such as pride. This was done with Model 4a and Model 4b. Finally, Study 3 used a binary logit model

in which individual choices were predict based on the interaction term between two binary predictors – valence and decision frame.

Table 2 – Summary of Dissertation's Studies and Models

Study	Model	M1	M2	M3	Objective	Description of the Statistical Method
Study 1	Models 1a – 3a		X		To validate the social-emotional component of the conceptual model.	Multiple cause multiple indicators (MIMIC) model in which the past effort of the seller causes the anticipated social emotions.
	Models 1b – 3b	X	X		To integrate the social-emotional component into the conceptual model (H_1 and H_2).	Hybrid choice model (HCM) in which anticipated social emotions mediate the influence of the past effort on preference for defection.
	Model 1c	X	X		To explore unobserved heterogeneity in the decision process.	Latent class model with latent variable – anticipated social emotions mediating the influence of past effort on preference for defection.
Study 2	Models 4a – 4b	X	X	X	To demonstrate that the role of anticipated social emotions on defection decisions is malleable, not fixed (H_3).	Replication of Models 2a-2b in which the pride factor is framed as "pride-to-stay" rather than "pride-to-defect".
Study 3	Model 5			X	To increase the validity of previous results, examining the 2-way full factorial effect on customers choices (H_3).	Binary logit model with an interaction term between valence (positive vs negative) and decision frame (defection vs continuation).

Notes. Social-emotional process: M1 = Mediating property; M2 = Multidimensional property; M3 = Malleable property.
Source: The author (2020).

4 TESTING THE CONCEPTUAL MODEL (H1 AND H2)

The first study tested Hypothesis 1 and Hypothesis 2. Participants were randomly assigned to one of the two conditions (past effort: absent vs. present), in which they read a vignette on life insurance service. Beside past effort, the experiment varied product attributes (i.e., price and length of contract). Anticipated guilt and pride were measured through psychometric indicators and were expected to mediate the effect of past effort on defection utility. To analyze the results of Study 1, first, I employed a confirmatory factor analysis with covariate in order to validate the latent structure of the conceptual model. After that, I used the hybrid choice model in order to integrate the social-emotional component into a discrete choice framework.

4.1 METHOD

4.1.1 Pilots

Pilot 1. Because individuals do not like to reason about social relationships as instruments for personal goals (Hatfield, Rapson, & Aumer-Ryan, 2008), it is not possible to measure the relational value itself (Nelissen, 2014). Thus, "relational utility" was manipulated between subjects (part I of the questionnaire). A pilot study was conducted to check the effect of this manipulation on participants' attitudes. Also, this pilot served to pre-test and calibrate the scenario. Seventy-eight participants were recruited from Prolific and earned £0.30 for their participation. The design was a one-factor (past effort), three-level (neutral vs. absent vs. present) between-subjects design. Participants read the same vignette used in the main studies (see Appendix B for the scenario vignettes), except that it had an extra condition, in which participants read a text as long as others about documentaries. After reading the scenarios, participants were asked to indicate the extent to which they agree with the following questions, on seven-point scales: (1) I feel grateful to the current seller (adapted from Palmatier et al, 2009); (2) I have trust in the current seller (adapted from Palmatier et al, 2009); (3) I have trust in the alternate seller (adapted from Palmatier et al, 2009); (4) I believe that a strong relationship with an insurer is needed to successfully have this product (adapted from Hibbard, Kumar, & Stern, 2001). Furthermore, they answered the follow: (5) "Indicate the picture that best describe your relationship with ANGEL (your current insurer) at large. How interconnected are you with Angel? (S = Self; A = Angel)" (adapted from Aron, Aron, & Smollan, 1992; see Figure 2 for an illustration).

Figure 2 – Screen Shot of the Inclusion of other in the Self Scale
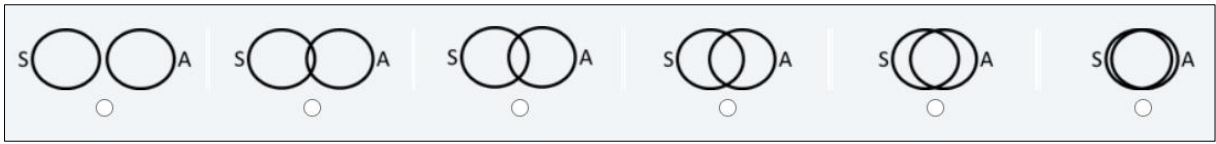
Source: The author – Qualtrics screen shot (2020).

Post-hoc results from the one-way analysis of variance (ANOVA) appear in Table 3. Feelings of gratitude toward the current seller increased with the benefit received (vs. Condition 2 vs. Condition 1). The difference between past effort present and past effort absent conditions for trust on the current seller is only marginal significant ($p = 0.07$), whereas the trust in the alternate seller, the self-other interconnection, and the dependence on seller questions were not significant. Regarding the differences between conditions 1 and 2, findings revealed that there were no differences across questions; hence, in Studies 1 and 2, the condition without effort is referred as a neutral condition.

The emotional functional perspective holds that the greater the utility of a benefactor, the greater is the appreciation of a receiver (e.g., Converse & Fishbach, 2012). Therefore, the increasement in feelings of gratitude in the past effort present condition (vs. conditions absent or neutral) suggests that the utility of the seller was also increased. On the other side, differences in trust, dependence, and closeness do not appear to account for the differences in dependent variables of the next studies.

Table 3 – Differences for Means across Conditions in the Pilot 1

Dependent variable	All (Mean (SD))	Condition 2 − 1	Condition 3 − 1	Condition 3 – 2
Gratitude toward the seller	4.86 (1.56)	0.31^{ns}	1.41***	1.10**
Trust in the current seller	4.91 (1.36)	0.30^{ns}	1.10***	0.80*
Trust in the alternate seller	3.83 (1.16)	−0.43^{ns}	−1.01***	−0.58^{ns}
Self-other interconnection	2.99 (1.22)	0.13^{ns}	0.78*	0.65^{ns}
Dependence on seller	4.64 (1.64)	−0.04^{ns}	0.52^{ns}	0.56^{ns}

Notes. Condition 1 showed a text about documentaries; Condition 2 showed the scenario without a past effort of the seller; Condition 3 showed the scenario with a past effort.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – R output (2020).

Pilot 2. Pilot 2 examined the willingness to pay for a marketing relationship with a current insurer. Seventy-nine participants were recruited from Prolific and earned €0.30. The design was a one-factor (past effort of the current seller), three-level (neutral vs. absent vs. present) between-subjects design. Participants read the same three vignettes used in the Pilot 1. After reading the scenarios, participants were asked the following questions: "1) What would a reasonable price be for Angel's life insurance monthly rate?" and "2) And what is the most you would be willing to pay per month to change for SEC Company (the alternate insurer)?". Results from these two questions and the ration between seller prices are presented in Table 4. As can be seen, 80% of participants indicated that the current insurer could be up to 1.67 higher than the alternate insurer before they defect (M = 1.43, SD = 0.37). Then, the size of difference between current and alternate insurer rates were set to be up to 75% in the next studies. It should vary the seller price differences in a reasonable way.

Table 4 – Deciles of Willingness to Pay in the Pilot 2

Decile	Price for current seller	Price for alternate seller	Ratio between seller prices
0%	$10.0	$5.0	1.00
10%	$15.5	$10.0	1.08
20%	$20.0	$15.0	1.14
30%	$25.0	$20.0	1.20
40%	$30.0	$23.5	1.25
50%	$42.5	$30.0	1.29
60%	$50.0	$35.0	1.41
70%	$70.5	$50.0	1.51
80%	$100.0	$69.5	1.67
90%	$114.0	$97.0	2.00
100%	$220.0	$200.0	2.50

Source: The author – R output (2020).

4.1.2 Participants and Design

Discrete choice data were collected from 833 participants in the Prolific online panel. The questionnaire was programed and distributed via Qualtrics. Participants were filtered by age (i.e., between 25 and 45 years old) and currently country of residence (i.e., United States). This custom prescreening was applied in order to reduced heterogeneity in background variables. Participants received €0.50 compensation for their participation.

4.1.3 Procedures

The proposed model was tested and supported using discrete choice experimental data on life insurance. Life insurance was chosen because it fulfills the conditions of a "personal relationship marketing context" (Crosby, Evans, & Cowles, 1990). It is a highly complex and intangible service, having significant "credence" properties, increasing the utility of a marketing relationship.

Because consumer emotions are variables sensible to incidental manipulations, the discrete choice experiment (Part II) was designed as simple as possible. Two procedures were carried out in order to avoid incidental manipulations. First, each participant made one choice only. If individuals have made multiple choices in a row as it is typical in discrete choice experiments, they would have to rate their feelings multiple times in a row either because anticipated emotions were associated with a particular decision. Such design would affect not only the degree to which feelings are relied upon but also alter the content of the feelings. Second, alternatives were described in terms of two attributes only: monthly rate (in dollars) and length of contract (in years). More than two attributes could again create incidental affect manipulations (e.g., anger toward the experimenter due to the amount of information to process). With this purity in view, price was included as a natural attribute in studies on economic preferences. Length of contract was also included, because its meaning is objective and straightforward, and it is conceptual relevant for a customer–seller relational bond framework. A screen shot of the choice experiment is showed in Figure 3.

Figure 3 – Screen Shot of Stated Preference Experiment

Source: The author – Qualtrics screen shot (2020).

The questionnaire started with the Prolific ID request. After that, participants informed their personal annual income, which was used to calculate the monthly rate attribute in the choice task. This procedure allowed the monthly rate attribute to vary proportionally to participants' income as well as to keep the realism of market values. The details about these procedures are presented in the next section.

Participants read an experimental vignette of approximately 300 words long, in which they decide to purchase a one-year contract with an average payout (about 10 times individual annual income) from the agent Angel. Participants interact socially with Angel over the course of a year, before they have to choose between renewal with Angel or defect to the low-price (but with a similar policy) alternate insurer SEC Company. Both insurers were recommended by friends in order to control for perceived risk. The complete vignette is available in Appendix A.

Angel's value was manipulated through varying whether Angel makes an "past effort", costly for Angel and valuable for the participant. In the hypothetical scenario, the participant has to fill urgently a form for claiming tax deduction on premiums paid for life insurance against loss of income. In the condition in which the past effort of the seller was present, Angel drives to participant and rushes to help fill it just in time. In the neutral condition, Angel informs the participant that the Government and Insurer systems were integrated – and no help was needed. The rationale behind this manipulation is that it makes salient the utility of the agent for the attainment of a personal goal, leading the participant to think that staying is likely to exceed the rewards of defection.

After reading the vignette, they faced the choice task between renewal with Angel and defect to SEC Company (e.g., Figure 3). Profile attributes were generated using a random "design parameters" (Danaf et al., 2019; Louviere, Hensher, & Swait, 2000). Length of contract had the same three levels (i.e., one, two, and four years) across alternatives, whereas monthly rates were generated based on respondent's personal income and baseline prices.

After selecting one of the two insurers, participants were asked to indicate how much guilt and pride they felt when thought about the decision. Social emotions were measured after the choice task to keep the dependent variable attached to the experimental manipulation. Guilt and pride were worded to ask participants how they felt when they considered the defection; therefore, the evaluations were directed to defection rather than continuation (i.e., "When you

were considering your alternatives, how did you feel when you thought about CHANGING to the SEC COMPANY (THE ALTERNATE INSURER)?"). Similar to Finucane, Alhakami, Slovic, and Johnson (2000), participants rated anticipated guilt and pride in separated screens. It was intended to avoid individuals approaching the rating task analytically and deliberating on what the net difference between guilt and pride should be for the particular situation. Also, the presentation of guilt and pride measures were counterbalanced to control for potential order effects. After that, participants responded to sociodemographic questions.

Common-method bias. Because measures come from the same source, the common method variance could bias the observed relationships among the constructs. Common method variance, the variance due to the measurement method rather than to the constructs the measures represent, is a well-documented issue and it is one of the main sources of systematic measurement error (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Following Podsakoff, MacKenzie, Lee, and Podsakoff (2003), procedural and statistical techniques were carried out to control such potential bias. First, it was avoided common scale formats to measure the focal constructs. For example, the relational value of the seller as well as the product attributes were experimentally manipulated through a random design; anticipated guilt and pride were measured with multiple interval scale items; and the dependent variable, seller choice, were measured with a nominal, dichotomous scale. Second, guilt and pride scale anchor points were not exactly repeated (e.g., no guilt at all/ no pride at all). Third, items for guilt and pride were presented in counterbalanced and separated screens. Finally, a bifactor approach was used to model the latent component of the choice model. A bifactor model is a special case of a multidimensional factor model, in which all indicators are explained by a general latent variable and, at the same time, by specific latent variables (i.e., guilt and pride factors). The specific factors represent the common variance associated with a group of variables beyond the general factor measured by the instrument as a whole (Silva, Huggins-Manley, Mazzon, & Bazán, 2019; Toland, Sulis, Giambona, Porcu, & Campbell, 2016; Reise, 2012; Reise, Moore, & Haviland, 2010). Because the bifactor model captures the variance of specific factors that are independent of the general factor, this procedure helps to control for that portion of the variance in the indicators that results from measuring items from the same source.

4.1.4 Measures and Variables

As mentioned before, past efforts of the current seller were experimentally manipulated between participants through the vignette. Continuation and defection alternatives were described in terms of monthly rate and length of contract. A critical step in stated preference experiments is the suitability of the profile attributes; this procedure is detailed next.

Length of contract were defined with three discrete levels, that is, one, two, and four years. These levels were identical across alternatives, generating eight combinations of profiles (e.g., Profile 1: Angel = 1 year, SEC = 1 year; Profile 2: Angel = 2 years, SEC = 1 year; Profile 3: Angel = 4 years, SEC = 1 year; …). Participants were then random assigned to one of these eight profiles. They were informed that the life insurance was an Annual Renewable Term (ART). This so-called life insurance is a form of term which offers a guarantee of future insurability for a set period of years. An ART is usually sold and renewed every year because it is designed to cover short-term insurance needs; however, up to five-year renewable term exists in United States. Thus, one, two, and four years should cover market levels reasonably. This set of values also spreads themselves in inequal increments, a desirable property for parameter estimation in discrete choice models.

Life insurance rate was designed as an alternative-specific attribute. The alternate insurer representing defection was a lower-price competitor; then, its monthly rate should be always lower than the current seller's one. The size of differences was defined based on the pilot results. As mentioned before, this attribute was set using random "design parameters[3]" to generate the levels shown in the profiles (Danaf et al., 2019). To calculate the monthly rates that would reflect the desirable differences between alternatives and, at the same time, keep the realism of market prices and personal budget, a three-step procedure was applied. First, the two monthly rates were defined as uniformly random parameters; specifically, two uniformly distributed random numbers were created in Qualtrics' flow such as the alternate seller distribution varied between 1.00 and 1.25 ($RNDU_{SEC} \sim 1.00, 1.25$), whereas the current seller one varied between 1.30 and 1.80 ($RNDU_{ANGEL} \sim 1.30, 1.80$). Second, a set of four baseline prices (i.e., $17, $29, $41, or $50) was selected from the quotes of Policygenus.com, a specialized company in policy quotation. Each baseline price corresponds to different personal annual income levels. Experts use to recommend a rule of thumb of 10 times individual annual

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[3] Past research has demonstrated that, when there are no good priors to the generation of efficient designs, random design performs relatively well and might be preferred (Walker, Thorhauge, & Ben-Akiva, 2018).

income as deciding how much a person needs coverage (Policygenus, 2020a). Then, in USA, the average cost of a $250,000 policy is $17 per month and is recommended to customers who makes $25,000 per year. This approach was applied to other levels and resulted in the following structure: a baseline monthly rate of $17 for $30,000 or less personal annual income; $29 for $30,001 - $50,000; $41 for $50,001 - $80,000; and $50 for More than $80,000. Third, these baseline prices were multiplied by the random parameters from the step one. For instance, a participant who makes $100,000 per year, and had the random numbers 1.00 and 1.50 drawn for alternate and current sellers respectively, would be shown a profile in which SEC's price was $50 (1.00 * $50) and Angel's price was $75 (1.50 * $50). This design constrained the current seller's rates to be always higher than the competitor's rates, and this difference to be closed to 143% in average (the same average ratio from the pilot 2).

The two latent variables – anticipated guilt and anticipated pride – were measured on a seven-point scale items from previous research on interpersonal relationships. To assess anticipated guilt, participants responded to a scale drawn from Dahl, Honea, and Manchanda (2005) which ranged from 1 "no guilt at all/ no remorse at all/ not worried about upsetting someone" to 7 "a lot of guilt/ a lot of remorse/ very worried about upsetting someone" (α = 0.91). Anticipated pride was measured with Schlosser (2015)'s scale, which ranged from 1 "no pride at all/ no dignity at all/ no esteem at all" to 7 "a lot of pride/ a lot of dignity/ a lot of esteem" (α = 0.92).

Finally, socio-demographic variables were collected. In addition to gender, age, level of education, and income, two items specific to the choice context were collected. Respondents were asked how many dependents they have (defined as someone who the participant provides at least half of the person's total support for the year — food, shelter, clothing, etc.), and whether someone in their residence had life insurance.

4.2 RESULTS

4.2.1 Socio-Demographics Statistics

Table 5 presents the descriptive statistics of Study 1 in order to obtain a sample overview through the socio-demographic surveyed data. Of all participants in Study 1, 52.5% were female. Most of them had up to 29 years old (36.5%), ranging from 25 to 45 years old. 49.0% had a personal annual income of $40,000 or less and 52.5% completed a College or Bachelor's degree. Relative to all participants, 68.1% had no dependent.

Of special interest is the life insurance ownership. 40.1% of respondents had life insurance, 7.2% did not have it during the interview but had it in the past, 12.2% did not have it but someone else in his/ her residence does, and 39.3% did not had it (nor anyone in his/ her residence). In comparison, 54% of American adults have life insurance and among the top reasons for buying it in the U.S. are Burial/ final expenses (84%), Wealth transfer (66%), Income replacement (62%), Supplement retirement income (57%), and Pay off mortgage (50%) (Policygenius, 2020).

Table 5 – Socio-Demographics Summary Statistics

Variable	Values	N (%)
What is your gender?	Female	437 (52.5%)
	Male	396 (47.5%)
How old are you?	25 – 29 years	304 (36.5%)
	30 – 34 years	261 (31.3%)
	35 – 39 years	162 (19.4%)
	40 – 45 years	106 (12.7%)
What is your personal annual income?	$10,000 or less	136 (16.3%)
	$10,001 - $20,000	92 (11.0%)
	$20,001 - $30,000	81 (9.72%)
	$30,001 - $40,000	100 (12.0%)
	$40,001 - $50,000	90 (10.8%)
	$50,001 - $60,000	89 (10.7%)
	$60,001 - $70,000	67 (8.04%)
	$70,001 - $80,000	53 (6.36%)
	$80,001 - $90,000	31 (3.72%)
	$90,001 - $100,000	16 (1.92%)
	$100,001 - $110,000	25 (3.00%)
	$110,001 - $120,000	7 (0.84%)
	$120,001 - $130,000	12 (1.44%)
	$130,001 - $140,000	5 (0.60%)
	$140, 001 - $150,000	13 (1.56%)
	More than $150, 000	16 (1.92%)
What is the highest level of education you have completed?	Less than High School	8 (0.96%)
	High School diploma	186 (22.3%)
	College/ Bachelor's degree	437 (52.5%)
	Masters/ Doctoral Degree	202 (24.2%)
How many dependents do you have?	I have no dependent	567 (68.1%)
	1 dependent	113 (13.6%)
	2 dependents	101 (12.1%)
	3 dependents	32 (3.84%)
	4 or more dependents	20 (2.40%)
Do you have life insurance?	Yes, I do.	334 (40.1%)
	No, but I've already had it in the past.	60 (7.20%)
	No, but someone in my residence does.	102 (12.2%)
	No, I don't nor anyone in my residence.	327 (39.3%)
	Other.	10 (1.20%)

Source: The author – R output (2020).

4.2.2 Exploratory Analysis and Basic Psychometric Characteristics of Latent Variables

In this section, results from choice and rating exercises are summarized and compared across experimental conditions. Furthermore, the basic properties and dimensionality of latent variables are accessed in an exploratory way; the confirmatory factor analysis is carried out in the next section.

Relative to all respondents, about half of them (43.5%) preferred defection. The quasi balanced proportion of staying versus defection signals that there was great variability across alternatives in the aggregated sample (or there was not a dominant alternative across the experimental set). As expected, the past effort manipulation demonstrated a significant effect on defection, as a chi-square test presents, with $\chi^2_{(1)} = 27.000$, (p < 0.01). Moreover, the analysis of choices in the neutral condition shows that, given the choice task design, people is almost indifferent between cooperation and defection (52.5% preferred defection). And the increase in relational value of other part shifts the preference for cooperation. Table 6 summarizes the results.

Table 6 – Behavioral Outcome across Conditions

	All	Neutral condition	Past effort condition
Continuation with current insurer – Angel	471 (56.5%)	196 (47.5%)	275 (65.5%)
Defection to alternate insurer – SEC	362 (43.5%)	217 (52.5%)	145 (34.5%)

Notes. The relation between these variables was significant in a chi-square test (p < 0.001).
Source: The author – R output (2020).

In the next stage, the hypothesis that the means of two experimental conditions on the 6-item instrument differ was tested with two-sample t-tests; the results appear in the Table 7. Note that the 6-items are examined as continuous scales in the current analysis; however, in the MIMIC as well as in the hybrid choice model, they are treated as categorical ordered outcomes.

As expected, how much participants felt anticipated guilt (measured by the indicators "guilt", "remorse", and "worry about upsetting someone") increased from the neutral to the past effort condition. In contrast, how much they felt anticipated pride (measured by "pride", "dignity", and "esteem") decreased. Receiving a benefit signals the high relational value of the seller and increases the probability of feeling guilt, in order to protect a valuable relationship.

Since a decision embedded in a social situation presupposes the balance of two social relational goals, cooperation and competition, the increase in utility of another part seems to reduce the defection probabilities not only by promoting feelings of guilt but also by preventing feelings of pride. In such context, receiving the benefit seems to neutralize selfish inclinations. Figure 4 plots the 6-item responses as ordered categorical outcomes.

Table 7 – Means (standard deviations) for Psychometric Indicators

Indicator	All (n=833)	Neutral condition (n=413)	Past effort condition (n=420)	Diff. between Past effort and Neutral Conditions
Overall guilt score	3.84 (1.68)	3.51 (1.67)	4.17 (1.62)	0.65***
Guilt	3.88 (1.87)	3.48 (1.83)	4.28 (1.82)	0.80***
Remorse	3.61 (1.74)	3.28 (1.68)	3.94 (1.74)	0.66***
Worry	4.03 (1.84)	3.78 (1.88)	4.28 (1.77)	0.50***
Overall pride score	3.65 (1.40)	3.86 (1.34)	3.45 (1.43)	−0.40***
Dignity	3.82 (1.58)	4.06 (1.49)	3.58 (1.62)	−0.48***
Esteem	3.71 (1.52)	3.93 (1.48)	3.50 (1.52)	−0.43***
Pride	3.43 (1.56)	3.59 (1.56)	3.27 (1.55)	−0.32***

Source: The author – R output (2020).

Figure 4 – Results of Rating Exercises across Conditions
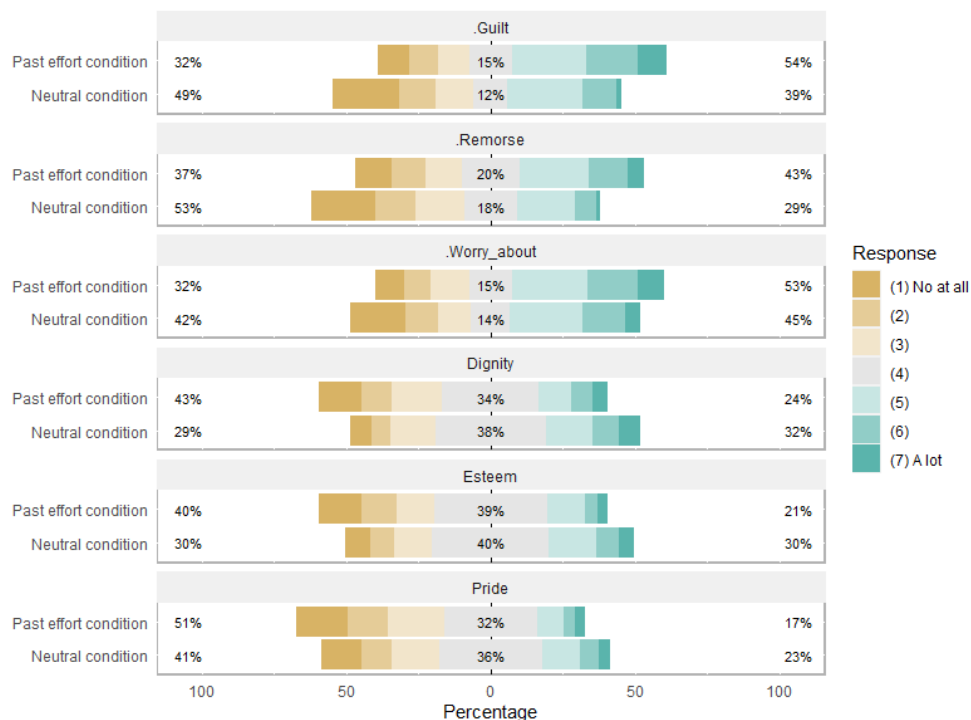
Source: The author – R output (2020).

Lastly, the dimensionality of the six-item instrument was assessed. The objective was to rule out the hypothesis that the underlying factors (anticipated guilt and pride) have a unidimensional structure. Two exploratory factor analysis with ordered outcomes (Wu & Estabrook, 2016) were conducted, varying the number of factors from one to two. These models were estimated in Mplus version 8.

The two eigenvalues (for sample correlation matrix) were larger than 1 and the remaining are closed to zero, as can be seen in Table 8. Because the eigenvalues measure the amount of variation in the total sample accounted for by each factor, these results do not support a unidimensional model. Moreover, the null hypothesis that a unidimensional model explains the correlation matrix as well as the bidimensional one was rejected, with $\chi^2_{(5)} = 1461.861$, ($p < 0.01$). Third, the two-factor solution is plausible for the data accordingly to a chi-square test of model fit, with $\chi^2_{(117448)} = 2936.577$, ($p = 1.000$).

Table 8 – Eigenvalues for Sample Correlation Matrix

Order	
1	3.070
2	2.065
3	0.285
4	0.228
5	0.219
6	0.132

Note: 6-item instrument.
Source: The author – Mplus output (2020).

Finally, after oblique rotation, factor loadings from the bidimensional model are meaningfully interpretable, as presented in Table 9. Factor one is markedly related to the first three items and not to the remaining three – and vice versa. Taken these results together, there is no support to a unidimensional structure for the 6-item instrument.

Table 9 – Factor pattern for the two-factor, rotated solution

Item	F1	F2
Guilt	**0.938***	−0.037
Remorse	**0.890***	0.016
Worry	**0.851***	0.002
Dignity	−0.051*	**0.898***
Esteem	0.002	**0.898***
Pride	0.012	**0.884***

Notes. Estimator method: Maximum Likelihood; Rotation method: Geomin; Type of rotation: Oblique; Loadings larger than .40 are in bold; * significant at 5% level. Loglikelihood: −7340.440; AIC: 14774.8; BIC: 14996.9; BIC (sample-size adjusted): 14847.7.
Source: The author – Mplus output (2020).

4.2.3 Setting the Ground for the Conceptual Model

The present section further investigates the dimensionality of the social-emotional process and its relation with the utility of the seller. The idea of such analysis is to avoid the misspecification of the latent variables in the hybrid choice model. A confirmatory factor analysis with covariates (i.e., multiple indicators multiple causes model, MIMIC model) and categorical ordered outcomes was applied. The MIMIC model allows unobservable variables to be influenced by multiple causes, such as individual and contextual differences, and measured by multiple indicators. Generally, it is used to study the effect of a covariate on a latent variable (Muthén, 1989). For example, if the effect of a covariate (e.g., the past effort) on a latent variable (e.g., anticipated guilt or pride) is significant, it means that the latent variable means vary according to the levels of the covariate. Therefore, a MIMIC model is particularly useful to quantify the interrelationships among the past effort and anticipated guilt and pride.

Three MIMIC models were used to analyze the dimensionality pattern of the 6-item instrument as well as its relation with the past effort. Model 1 applied a standard multidimensional model – two factors reflecting a specific set of indicators. Because anticipated guilt and pride may reflect a unique higher construct, Models 2 and 3 applied a bifactor modelling approach, which include a general factor (the G factor) that explains all 6-items while simultaneously considering for the specific factors (guilt and pride factors).

In bifactor models with covariates, it is not possible to link the covariate to all latent variables at the same time because the model would not be identified (Muthén & Muthén, 2017). Such restriction left two logical options: a bifactor model with the covariate with a path to the general factor (Model 2), or the covariate with a path to the specific factors (Model 3). Figure 5 illustrates the structure of these MIMIC models.

Figure 5 – Three Latent Social-Emotional Models
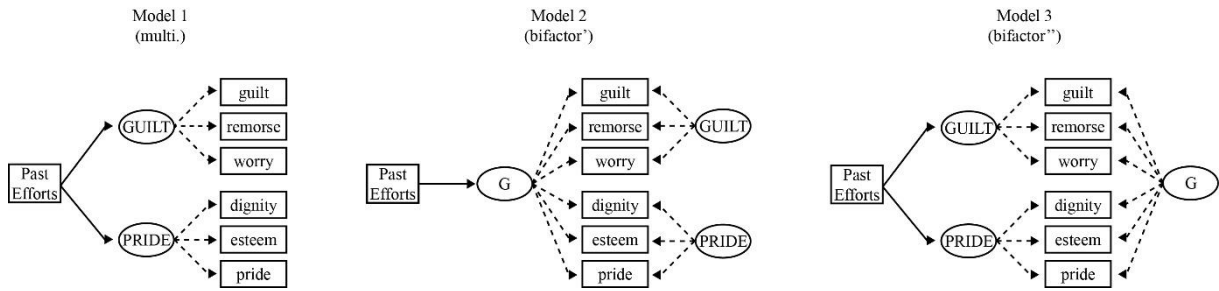
Notes. Model 1: multidimensional model with both guilt and pride factors regressed on the past effort (covariate); Model 2: bifactor model with general factor regressed on the past effort; Model 3: bifactor model with both guilt and pride factor regressed on the past effort. Latent variables are represented by ellipses.
Source: The author – Mplus output (2020).

Because anticipated guilt and pride were measured with indicators in an interval, discrete scale, they were estimated as ordinal variables. In such cases, two commonly used estimation methods are maximum likelihood and weighted least squares. The three models in Figure 5 were estimated using maximum likelihood estimator. However, they were also estimated with weighted least squares because maximum likelihood do not provide mostly favored goodness-of-fit such as the absolute chi-square statistic, root mean square error of approximation (RMSEA), Bentler's comparative fit index (CFI), and Tucker Lewis index (TLI). Therefore, first, MIMIC models were estimated with weighted least squares; after that, the same models were estimated using maximum likelihood.

As shown in Table 10, the bifactor model with past efforts with a path to the general factor leaded to the best fit, with $\chi^2_{(8)}$= 11.355 (p = 0.18), RMSEA = 0.02 (0.000~0.050), CFI = 0.999, TLI = 0.999. Indeed, according to the non-significant chi-square test, there is no difference between the observed variance-covariance matrix and the one produced by this model. Other indices indicate a great fit either: the complete 90% confidence interval for RMSEA is equal or less than 0.05, and CFI and TIL are greater than 0.90. In addition, the modification indices output from Mplus software made no suggestion at the default critical value[4] about direct effects among covariate and indicators, establishing measurement

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[4] In Mplus, the default critical value is 10; it requests that any modification indices to be over 10 for one degree of freedom. Since the chi-square value of 3.84 is the value that should be exceeded at the .05 level for one degree of freedom, a more sensible approach would set the critical value at 3.84. The Model 2a was revisited with the critical value of 3.84, and the direct path between the covariate and the indicator esteem exceed 3.84 (i.e., 4.23). Then, a third model were revisited with this direct path suggested by modification indices; this path is weak and not significant at a .05 level (estimate = −0.048; p-value = 0.083). This modification was not implemented; also, measurement non-invariance across experimental conditions does not appear an issue on this model.

invariance across conditions (Muthén, 1989). With the weighted-least square estimator, Model 1a and Model 3a performed worse than Model 2a markedly; however, their goodness-of-fit are acceptable, and they are useful for generating insights about the dynamics of the focal constructs.

Table 10 – MIMIC Models Fit with the Weighted-Least Square Estimator

	Model 1a (multi.)	**Model 2a (bifactor')**	Model 3a (bifactor'')
# Free Parameters	45	**49**	50
Chi-square test	48.091	**11.355**	25.759
Degrees of Freedom	12	**8**	7
P-Value	< 0.01	**0.18**	< 0.01
χ^2 / d.f.	4.000	**1.419**	3.679
RMSEA	0.060	**0.022**	0.057
RMSEA 90% Percent C.I.	0.043 ~ 0.078	**0.000 ~ 0.050**	0.034 ~ 0.081
RMSEA Probability < 0.05	15.8%	**95.2%**	28.3%
CFI	0.998	**0.999**	0.999
TLI	0.996	**0.999**	0.996

Notes. The estimation method is weighted-least square with a logit link (indicators are ordered variables). Selected model is in bold.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

Fit indices from MIMIC models estimated with maximum likelihood resulted in the same pattern observed with weighted-least square estimator. The structural path models' estimates appear in Table 11. Model 2a provided the best fit to the data (LL = −7287.620, AIC = 14673.240, BIC = 14904.767, Adjusted BIC = 14749.160); all estimates are significant, and the direction is in accordance with the conceptual model. All loadings on the specific factors were larger than on the general factor, demonstrating that indicators are better measures of the guilt and pride factors than the general factor. The greater the loading on the general factor, the grater is the discrimination that such item provides on the general factor (Reise, Moore, & Haviland, 2010). The fact that guilt indicator has the highest loading ($\lambda_{\text{guilt\_G}}$ = −4.696, p-value < 0.01) as well as that the loadings from guilt are greater than those from pride suggest that the general factor has negatively valenced inclinations and its appraisals are more associated with guilt than pride. This insight is fortified by the positive association between the past effort covariate and the general factor ($\alpha_{\text{effort\_G}}$ = 0.823, p-value < 0.01). The general factor means are 0.823 points higher among individuals in past effort condition than in neutral condition because relational value increases the probability of anticipating guilt (Nelissen, 2014).

As a final analysis in this section, Model 2a were revisited with not only the past effort as covariate but also with monthly rate, length of contract, and individual income. For the sake of length, results from this analysis are showed in Appendix B. The inclusion of these explanatory variables worsened the model fit (LL = −7285.271, AIC = 14682.541, BIC = 14947.143, Adjusted BIC = 14769.306) in comparison to Model 2a. A likelihood test ratio supports that there was no fit improvement with these addition variables: the critical chi-square value at 5% significance level is 14.07 with 56−49=7 degrees of freedom. The test statistic is 2*((−7285.271) − (−7287.620)) = 4.698, which is not greater than the critical value. Importantly, none of these variables has a significant effect on the general factor, indicating that the social-emotional process varies as a function of social interactions, but product attributes or individual characteristics do not appear to have an effect on that.

Table 11 – Estimates from MIMIC Models with Past Efforts as Covariate

	Model 1a (multi.)	Model 2a (bifactor')	Model 3a (bifactor'')
Measurement equations:			
Guilt ← G *factor*	NA	**4.696*****	5.457**
Remorse ← G *factor*	NA	**1.918*****	2.367***
Worry ← G *factor*	NA	**1.490*****	2.173***
Dignity ← G *factor*	NA	**−1.574*****	−1.212***
Esteem ← G *factor*	NA	**−1.188*****	−0.812***
Pride ← G *factor*	NA	**−1.108*****	−0.898***
Guilt ← GUILT *factor*	7.010***	**6.110*****	5.571**
Remorse ← GUILT *factor*	3.580***	**3.014*****	2.702***
Worry ← GUILT *factor*	2.995***	**2.746*****	2.093***
Dignity ← PRIDE *factor*	3.895***	**3.596*****	3.716***
Esteem ← PRIDE *factor*	3.668***	**3.506*****	3.637***
Pride ← PRIDE *factor*	3.430***	**3.278*****	3.299***
Structural equations:			
GUILT *factor* ← Past efforts of seller	0.456***	**NA**	0.627***
PRIDE *factor* ← Past efforts of seller	−0.309***	**NA**	−0.319***
G *factor* ← Past efforts of the seller	NA	**0.823*****	NA
Model fit information			
Observations	833	**833**	833
# Free Parameters	45	**49**	50
Loglikelihood (LL)	−7296.405	**−7287.620**	−7291.669
Akaike (AIC)	14682.810	**14673.240**	14683.338
Bayesian (BIC)	14895.437	**14904.767**	14919.590
Adjusted BIC	14752.532	**14749.160**	14760.807

Notes. Selected model is in bold. NA = not applicable.
***p-value < .01
  **p-value < .05
    *p-value < .10
Source: The author – Mplus output (2020).

4.2.4 Main Results

This section tested the proposed conceptual formally. The latent variable components from the previous section were integrated into the consumer's utility function (i.e., decision rule). Specifically, three hybrid choice models were estimated, and they differ based on the specification of the latent component. Figure 6 shows the hybrid choice model in which the indirect effect of the past effort is mediated by the general factor (Model 2b). In Model 1b, this effect is mediated by both anticipated guilt and pride factors in a multidimensional model, whereas, in Model 3b, it is also mediated by both guilt and pride factors, but in a bifactor model. As in the last section, it is not possible to link all latent variables of a bifactor model to a covariate because the model would not be identified. Therefore, in the choice models with the bifactor component, the indirect effect of the past effort was specified through or the general factor (Model 2b) or through both guilt and pride factors (Model 3b). A null model (i.e., a model with intercept only) was also estimated as the baseline for comparison purposes. The choice and latent variable parts of the model were estimated simultaneously in Mplus v.8[5] using maximum likelihood (see Appendix C for the corresponding input file).

Figure 6 – Graphical Representation of the Hybrid Choice Model (Model 2b)
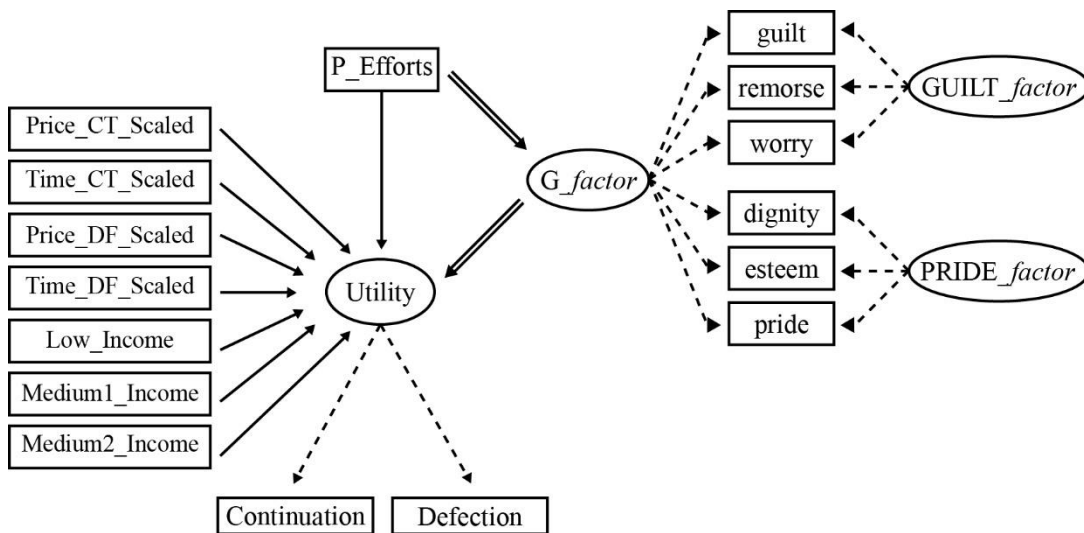
Note. Indirect effect of past efforts (H_2) are depicted by the double arrows. Latent variables are represented by ellipses.
Source: The author (2020).

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[5] Mplus is a popular software for latent variable modelling which has successful been applied for hybrid choice model estimation (e.g., Zhao, 2009; Temme, Paulssen, & Dannewald, 2008). As a test for the validity, a conditional MNL model including alternative-specific variables (Train, 2003) was estimated in Mplus; the results were them compared to R Package Apollo (Hess & Palma, 2019) and Python Package Biogeme (Bierlaire, 2020), standard programs for choice modelling; no differences were found.

The models' diagnostic information appears in Table 12. The fit of the three hybrid choice models is considered acceptable because the McFadden's R-squared is between 0.2 and 0.4. The information criterion results are similar to that from MIMIC models, that is, the Model 2b provided the best fit for the data. A likelihood test ratio further supports that Model 2b performed better than Model 1b. The critical chi-square value at 5% significance level is 9.49 with 58−54=4 degrees of freedom. The test statistic is 2*((−7811.650) − (−7830.684)) = 38.068, which is greater than the critical value. The assessment of the difference in fit between Model 2b and 3b is also significant; in this case, the critical value is 5.99 with 60−58=2 degrees of freedom and the test is 2*((−7811.650) − (−7815.282)) = 7.264. Hence, the hypothesis that the Model 2b (LL = −7811.650, AIC = 15739.299, BIC = 15829.163, Rho-square-adj. = 25.1%) is equivalent to other two was rejected. Because the selected model has a bifactor specification, the idea that anticipated guilt and pride are part of a higher construct is fortified.

Table 12 – Hybrid Choice Model: Model Fit

	Null Model (intercept only)	Model 1b (multi.)	**Model 2b (bifactor')**	Model 3b (bifactor'')
Observations	833	833	**833**	833
Free Parameters (K)	1	54	**58**	60
Loglikelihood (LL)	−10502.213	−7830.684	**−7811.650**	−7815.282
Akaike (AIC)	21006.427	15769.367	**15739.299**	15750.564
Bayesian (BIC)	21011.152	16024.519	**16013.351**	16034.066
Adjusted BIC	21007.976	15853.033	**15829.163**	15843.526
Rho-square	0.0%	25.4%	**25.6%**	25.6%
Rho-square-adj.	NA	24.9%	**25.1%**	25.0%

Notes. Model 1b is a multidimensional model, in which the past effort's effect on defection utility is mediated by both guilt and pride factors; Model 2b is a bifactor with the general factor as the mediator variable; Model 3b is a bifactor with both guilt and pride factors as mediator variables. AIC = −2LL + 2K; BIC = −2LL + Kln(n); Adjusted BIC = −2LL + Kln((n + 2)/24); Rho-square = $1 - \frac{LL_{full}}{LL_{intercept}}$; Rho-square-adj. = $1 - \frac{LL_{full} - k}{LL_{intercept}}$. Selected model is in bold. NA = not applicable.
Source: The author – Mplus output (2020).

Social-emotional process was defined as emotion guilt and pride that individuals anticipate in defection decisions embedded in marketing relationships. According to the conceptual model, such anticipated emotions are explained by the relational value of the seller[6]. Guilt and pride factors were measured with 7-point scale psychometric indicators, coded as 1

[6] Product attributes and socio-demographic variables had no effect on the latent variables; thus, these linkages were not included in the final models.

(not at all) to 7 (a lot of); therefore, it was considered in the modelling part that these values are discrete.

In the selected model, the deterministic utility function of the two alternatives (continuation (CT), defection (DF)) can be expressed mathematically as follows:

$$V_{CT} = B_{PRICE,CT} * Price\_CT\_Scaled/ Income\_Scaled + B_{TIME} * Time\_CT\_Scaled \qquad (2)$$

$$
\begin{aligned}
V_{DF} = \ & ASC_{DF} \\
& + B_{PRICE,DF} * Price\_DF\_Scaled/ Income\_Scaled \\
& + B_{TIME} * Time\_DF\_Scaled \\
& + B_{LOW\_INCOME} * Low\_Income \\
& + B_{MED1\_INCOME} * Medium1\_Income \\
& + B_{MED2\_INCOME} * Medium2\_Income \\
& + B_{P\_EFFORTS\_DIR} * P\_Efforts\ \textbf{(c)} + B_{G\_FACTOR} * G\_factor\ \textbf{(b)} \qquad (3)
\end{aligned}
$$

with Price_CT_Scaled = monthly rate for continuation scaled, that is, monthly rate divided by personal monthly income and then divided by the mean (M=17) to center it around 1 (in dollars); Time_CT_Scaled = length of contract for continuation divided by mean (M=2) to center it around 1 (in years); ASC_{DF} = a constant capturing product-specific preferences for defection; $B_{PRICE,DF}$ = , monthly rate divided by personal monthly income and then divided by the mean (M=13) to center it around 1 (in dollars); Time_DF_Scaled = length of contract for defection divided by mean (M=2) to center it around 1 (in years); Low_Income = takes the value 1 if the individual earns $30,000 per year or less and 0 otherwise; Medium1_Income = takes the value 1 if individual earns between $30,001 and 50,000 per year and 0 otherwise; Medium2_Income = takes the value 1 if the individual earns between $50,001 and 80,000 per year and 0 otherwise; P_Efforts = takes the value 0.5 if the individual was in the past effort condition and −0.5 otherwise (neutral condition); and G_factor = the continuous latent variable from the bifactor model (i.e., the general factor).

Model identification is settled by normalizing to zero the dummy income variables and the general factor for the defection option; for the continuation option, the alternative-specific constant (ASC_{CT}) was fixed. The B_{HIGH_INCOME} (takes the value 1 if individual earns more than $80,001 per year and 0 otherwise) is the dummy reference category and was also normalized to zero.

To investigate whether past effort explain the social-emotional process, the latent variable is written with the following structural equation:

$$G\_factor = \alpha_{intercept} + \alpha_{p\_efforts} * P\_Efforts \textbf{ (a)}$$

(4)

The behavioral assumption in the conceptual model is that perceptions of the seller's relational value (e.g., the intention and ability to facilitate the attainment of personal goal(s)) are processed via emotional mechanisms. Thus, the effect of the relational utility was allowed to directly as well as to indirectly influence choices through social emotions. In line with mediation research (Zhao, Lynch, & Chen 2010), the indirect effect of an independent variable on a dependent variable is determined as a*b, where a is the influence of the independent variable on the mediator (i.e., $\alpha_{p\_efforts}$), and b is the influence of the mediator on the dependent variable (i.e., B_{G_FACTOR}). On the other hand, c is the direct effect (i.e., $B_{P\_EFFORTS\_DIR}$) after controlling for the indirect effect. The standard mediation analysis holds that a total effect c' is defined as c + a*b. Breaking down the total effect of past effort (c') into indirect (a*b) and direct effects (c) results in the following equation (Hayes 2012, Model 4; Peloza, White, & Shang, 2013):

$$B_{P\_EFFORTS\_TOT}{}^{7} = B_{P\_EFFORTS\_DIR} + (\alpha_{p\_efforts} * B_{G\_FACTOR})$$

(5)

Finally, the measurement equations are not included in this section, but their formulation can be assessed in Abou-Zeid and Ben-Akiva (2014). For identification purposes, the variance of each latent factor was fixed to 1^{8}. Since the latent factors are not allowed to covary in a bifactor model, the correlation among them were set to zero.

Next, the results of the selected Model 2b are presented; the presentation is divided in (1) parameters from the structural and measurement equations and (2) parameters from the utility functions. The estimates from the structural and measurement parts of the model appear in Table 13. All coefficients are significant and have the expected signs. The factor structure observed in the MIMIC model remains unchanged into the discrete choice framework. For instance, the general factor is still best discriminated by the guilt ($\lambda_{guilt\_G} = 5.652$, p < 0.01) and remorse ($\lambda_{remorse\_G} = 2.161$, p < 0.01) indicators. Moreover, the effect of past effort on the

---

[7] The Model Constraint option implemented in Mplus was used to estimate indirect effects.
[8] When one loading per factor was fixed to 1 rather than the factors' variance, the model did not converge.

general factor is positive and significant ($\alpha_{p\_efforts} = 0.770$, p-value < 0.01). This parameter is read as the contribution of the covariate to the latent factor. For example, since the G factor−past effort linkage is positive, it means that individuals who received a benefit from the current seller have a higher value for this affective state construct compared to individuals who did not received it. As in the MIMIC model assessment, this result has face validity. When the relational utility is high, the self-other trade-off increases (e.g., Should I maintain a valuable relationship or get immediate economic benefits?), and the probability that a different heuristic is used, such as an emotional-based one, increase (Pham, 1998; Raghunathan & Pham, 1999; Harmeling et al., 2015).

The relation between social emotions and past effort appears to be relatively weak, as indicated by the explained variance of the general factor ($R^2 = 0.129$, $p < 0.01$). Although these equations usually have low explanatory power in most empirical applications (Abou-Zeid & Ben-Akiva, 2014), this result can also be examined with the research procedures in mind. Because the relational value construct should not be measured itself, the current study manipulated past effort through a one-time interaction, identified in the choice model by a dummy variable. Relational value, however, encompasses other dimensions, such as the dependence on the seller, which did not vary across conditions. Also, the considerable heterogeneity in the sample is likely to reduce the explanatory power of the independent variables (Temme, Paulssen, & Dannewald, 2008).

Table 13 – Hybrid Choice Model: The Latent Variable Component

	Model 1b (multi.)	Model 2b (bifactor')	Model 3b (bifactor'')
Measurement equations:			
Guilt ← G *factor*	NA	**5.652***	4.557***
Remorse ← G *factor*	NA	**2.161***	2.156***
Worry ← G *factor*	NA	**1.665***	2.055***
Dignity ← G *factor*	NA	**−1.583***	−1.485***
Esteem ← G *factor*	NA	**−1.233***	−1.077***
Pride ← G *factor*	NA	**−1.101***	−1.185***
Guilt ← GUILT *factor*	6.541***	**6.542***	5.143***
Remorse ← GUILT *factor*	3.644***	**2.846***	2.935***
Worry ← GUILT *factor*	3.019***	**2.694***	2.183***
Dignity ← PRIDE *factor*	3.843***	**3.584***	3.618***
Esteem ← PRIDE *factor*	3.732***	**3.482***	3.577***
Pride ← PRIDE *factor*	3.434***	**3.299***	3.174***
Structural equations:			
G *factor* ← Past efforts of the current seller **(a)**	NA	**0.770***	NA
GUILT *factor* ← Past efforts of the current seller **(a)**	0.455***	**NA**	0.605***
PRIDE *factor* ← Past efforts of the current seller **(a)**	−0.308***	**NA**	−0.329***

Notes. Selected model is in bold. NA = not applicable.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

Table 14 presents the results from the utility function. All parameter estimates are meaningfully interpretable and most of them are significantly different from zero at $p < 0.05$. The exception is the intercept ($ASC_{DF} = 0.261$, $p = 0.226$). Since each alternative was chosen almost the same number of times (i.e., 56.5% chose continuation with current seller), this non-significant parameter may be explained in light of such variation. Also, the income's parameter estimates entered into the utility function interacting with ASC. Therefore, they can have absorbed the effect of the ASC.

Table 14 – Hybrid Choice Model: The Utility Function

	Model 1b (multi.)	Model 2b (bifactor')	Model 3b (bifactor'')
Alternative-specific constant (ASC$_{DF}$)	0.218^{ns}	**0.261^{ns}**	0.240^{ns}
Monthly rate of current seller (in dollars)	−2.196***	**−2.286***	−2.299***
Monthly rate of alternate seller (in dollars)	−2.272***	**−2.375***	−2.382***
Length of contract (in years)	0.179**	**0.188**	0.190**
Low-income	−0.758**	**−0.818***	−0.793**
Medium-income 1	−0.525**	**−0.586**	−0.541**
Medium-income 2	−0.554**	**−0.566**	−0.575**
Past efforts of the current seller **(c)**	−0.565***	**−0.320***	−0.383**
G *factor* **(b)**	NA	**−0.660***	NA
GUILT *factor* **(b)**	−0.292***	**NA**	−0.510***
PRIDE *factor* **(b)**	−0.325***	**NA**	0.437***
Indirect and total effects:			
Past efforts of the current seller via G *factor* **(a*b)**	NA	**−0.508***	NA
Past efforts of the current seller via GUILT *factor* **(a*b)**	−0.133***	**NA**	−0.309**
Past efforts of the current seller via PRIDE *factor* **(a*b)**	−0.100***	**NA**	−0.144***
Past efforts of the current seller total effect **(c + a*b)**	−0.797***	**−0.828***	−0.835***

Notes. Selected model is in bold. NA = not applicable.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

Results relating the effects of the product attributes and individual characteristics. Monthly rate coefficients have negative signs ($B_{PRICE,CT}$ = −2.196, p < 0.01; $B_{PRICE,DF}$ = −2.272, p < 0.01), indicating that, as expected, the utility perceived by consumer for any of the two alternatives decreases with an increase in the cost. On the other hand, the interpretation of the positive sign of the length of contract coefficient is not so intuitive as of the cost is (B_{TIME} = 0.188, p < 0.05). First of all, the attribute range were not that lengthy with one, two, and four levels; a negative coefficient could be observed with 5, 10, and 20 years, for instance. Presumably, consumers prefer a somewhat longer contract in order to maintain a state of psychological comfort and to avoid painful trade-offs every year (Sheth & Parvatiyar, 1995).

Given the specification in Equation (3), income was broken into four dummy variables identifying the level of income. And the dummy identifying the highest income was chosen as the reference category. All three parameters are significantly different from zero, negative, and decrease monotonically from higher to lower levels. The negative sign of coefficients reflects a preference from lower income people toward continuation alternative; and as income level decreases this preference gets higher. Note that, because these dummy variables coincide with the baseline price levels from choice task, this result can also be interpreted in terms of the

absolute values of price alternatives[9]. For instance, as the baseline price decreases (and, consequently, the prices shown in profiles), the preference for continuation increases.

Results relating the effect of the past effort. These findings concern the parameter estimates from total, direct, and indirect effects of the relational value on customer choice. Table 14 reveals that the impact of mediator on defection is negative and significant ($B_{G\_FACTOR} = -0.660$, $p < 0.01$), indicating that a variation in the anticipated emotion explain variation in choice.

In H_1, it was posited that the past effort of the current seller negatively affects the defection utility; this path is significant in the selected Model 2b ($B_{P\_EFFORTS\_TOT} = -0.828$, $p < 0.01$) as well as in the alternate models – Model 1b ($B_{P\_EFFORTS\_TOT} = -0.797$, $p < 0.01$) and Model 3b ($B_{P\_EFFORTS\_TOT} = -0.835$, $p < 0.01$). Thus, it was found support to H_1 and it is consistent across different modelling specifications. In the present theoretical reasoning, H_2 predicts that the effect of past effort is transferred to behavioral outcomes through a dual emotional process. H_2 also received support because the indirect effect of past effort on defection utility is significant ($\alpha_{p\_efforts} * B_{G\_FACTOR} = -0.508$, $p < 0.01$). Such indirect effect explains 61.4% of the total effect ($a*b/c' = 0.614$, $p < 0.01$). Because the direct effect is marginally significant ($B_{P\_EFFORTS\_DIR} = -0.320$, $p = 0.08$), one could argue that the effect of the past effort is completed mediated by social emotions. Considering the significant direct effects from Model 1b ($B_{P\_EFFORTS\_DIR} = -0.565$, $p < 0.01$) and Model 3b ($B_{P\_EFFORTS\_DIR} = -0.383$, $p < 0.05$) as reference, however, it seems more conservative do not conclude that. Furthermore, the odds ratio of the indirect effect is significantly different from zero either ($\exp(\alpha_{p\_efforts} * B_{G\_FACTOR}) = 0.602$, $p < 0.01$).

Exploring decision process heterogeneity. To illustrate the theoretical and managerial insights that the conceptual model can provide, the previous model was estimated using a discrete parameter distribution with two latent classes (Burke, Eckert, Sethi, 2019). A strength of the mixture models is that it can capture intermediate layer in the utility formation process, such as in the decision process (Ben-Akiva & Bierlaire, 2003). With the present conceptualization, it is presented tenets for social-emotional process heterogeneity. For instance, consumer segments could differently perceive the intentions of the seller based on a past effort. One segment could perceive a past effort or benefit received in a genuinely way, while another could perceive the

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[9] These dummy variables could identify baseline prices rather than individual incomes. In this case, the rate coefficient for defection alternative would be now defined as being equal to the rate coefficient plus these dummy variables. This latter specification would be mathematically equivalent to that in Equation 2 and differ in the behavioral interpretation only.

same benefit as an attempt at persuasion. In this case, the latter segment would be less sensible to a relationship marketing program (or it could even backfire). On the other hand, two segments could perceive the past efforts equally, but they could differently weight such efforts compared to price, for example.

Since the selected Model 2b and Model 3b did not converge (e.g., due to the complexity arising with the bifactor specification relative to the number of observations), the latent class latent variable model was run using the specification of Model 1b. Estimation was done by maximum likelihood with Mplus software. The fit of the model is acceptable, with LL = -7763.885, AIC = 15677.770, BIC = 16032.147, Rho-square-adj. = 25.4%, and 75 free parameters. The latent class model classified participants into class 1 (58% of participants) or class 2 from the posteriori membership probabilities, with the average latent class probabilities for most likely latent class membership being 89% in class 1 and 81% in class 2.

The structural path model's estimates appear in Table 15. The segments have markedly differences on the basis of preferences for defection; specifically, segment 1 prefers continuation and segment 2 prefers defection as indicated by the sign of the constants (ASC_{DF_1} = -1.124, p < 0.01; ASC_{DF_2} = 1.026, p < 0.01). A descriptive analysis shows that Segment 2 defected more (i.e., 46%) than segment 1 (i.e., 40%) and this difference is marginally significant, with $\chi^2_{(1)}$= 3.016 (p = 0.082). However, such difference appears to occur only in the past effort condition. That is, when in the past effort condition, individuals from segment 2 defected more (i.e., 40%) than segment 1 (i.e., 27%), but there is no difference in the neutral condition (i.e., segment 1 defected 52% of time and segment 2 did 53%). This hypothesis was further examined with an additional binary logit model, in which the customer choice was regressed on the dummy variables identifying the condition (past effort: absent vs. present) and the segment (segment 1 or segment 2 from most likely posteriori membership probabilities), and an interaction term between these two binary predictors. Then, the marginal probabilities were estimated for each 2-way factorial cell and compared across classes with the delta-method (Hosmer, Lemeshow, & Sturdivant, 2013). As expected, the difference for defection probabilities between segment 2 and segment 1 is positive and significant in the past effort condition ($\Delta_{P(def)}$= 13.8%, p < 0.01), whereas there is no such difference in neutral condition ($\Delta_{P(def)}$ = -2.0%, p = 0.682).

Moreover, there is no significant relation between class membership and condition, with $\chi^2_{(1)}$= 0.020 (p = 0.88), meaning that the proportion of individuals in neutral or past effort

condition is not different across classes. This highlighted that the unobserved heterogeneity is in the decision process, not in the benefits received. Taken together, these findings demonstrated that segments respond differently when the relational value of the seller is high, but not when it is low or neutral. This also illustrates that the current model is able to distinguish heterogeneity across latent classes based on perceptions or sensibilities toward relational efforts. In turn, the current analysis demonstrates that relational efforts activate a different decision process (i.e., social-emotional process).

Next, other differences are further examined. Another markedly difference between segments is the guilt factor weights. For instance, in the segment 1, the influence of past effort on guilt factor ($\alpha_{p\_efforts\_GUILT\_1} = 0.740$, $p < 0.01$) was greater than in segment 2 ($\alpha_{p\_efforts\_GUILT\_2} = 0.394$, $p < 0.01$), whereas it was not observed such difference in the past effort-pride factor linkage ($\alpha_{p\_efforts\_PRIDE\_1} = -0.400$, $p < 0.01$; $\alpha_{p\_efforts\_PRIDE\_2} = -0.378$, $p < 0.01$). Similarly, the effect of guilt factor on defection utility is greater in segment 1 ($B_{GUILT\_factor\_1} = -0.473$, $p < 0.01$) than in segment 2 ($B_{GUILT\_factor\_2} = -0.326$, $p < 0.01$); on the other side, the effect of pride factor on defection utility is lesser in the segment 1 ($B_{PRIDE\_factor\_1} = 0.254$, $p < 0.01$) than in the segment 2 ($B_{PRIDE\_factor\_2} = 0.642$, $p < 0.01$). In other words, the differences in preference for continuation versus defection can be explained by the way that the past effort is converted into utility – e.g., the past effort increased affiliation in segment 1, whereas it did not in segment 2. Finally, the analysis of the indirect and direct effects fortifies previous insights (e.g., in the segment 2, the indirect effect via guilt is not significant).

Table 15 – Latent Class and Latent Variable Model

	Model 1c	
	Segment 1 (42%)	Segment 2 (58%)
Measurement equations:		
Guilt ← GUILT *factor*	6.254***	3.340***
Remorse ← GUILT *factor*	3.950***	1.972***
Worry ← GUILT *factor*	3.261***	1.739***
Dignity ← PRIDE *factor*	4.619***	2.190***
Esteem ← PRIDE *factor*	4.732***	1.916***
Pride ← PRIDE *factor*	4.248***	1.710***
Structural equations:		
GUILT *factor* ← Past effort **(a)**	0.740***	0.394***
PRIDE *factor* ← Past effort **(a)**	−0.400***	−0.378**
Utility function:		
Alternative-specific constant ASC_{DF}	−1.124**	1.026**
Monthly rate of current seller (in dollars)	−2.565***	−2.285**
Monthly rate of alternate seller (in dollars)	−2.323**	−2.706**
Length of contract (in years)	0.457***	−0.012^{ns}
Low-income	−0.211^{ns}	−1.318**
Medium-income 1	−0.526^{ns}	−0.664^{ns}
Medium-income 2	−0.069^{ns}	−1.137**
Past effort **(c)**	−0.728**	−0.287^{ns}
GUILT *factor* **(b)**	−0.473***	−0.326*
PRIDE *factor* **(b)**	0.254**	0.642***
Indirect and total effects:		
Past effort via GUILT *factor* **(a*b)**	−0.350***	−0.129^{ns}
Past effort via PRIDE *factor* **(a*b)**	−0.102*	−0.242*
Past effort total effect **(c + a*b)**	−1.180***	−0.658**

Notes. NA = not applicable.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

4.3 DISCUSSION OF RESULTS

Study 1 supports the nomological validity of the proposed conceptual model, revealing that decisions in which one of alternatives have created value through social interaction have a unique, distinct social-emotional process. Specifically, consumers process the relational utility of an alternative on the basis of anticipated social emotions (i.e., the mediating property), and this indirect effect accounts for more than half of the total effect. Importantly, this process does not account for the effect of non-social attributes, as indicated by the absence of association among product attributes and anticipated emotions (see Appendix B). Also, the latent class

analysis findings fortified such proposition, because segments defect differently when a past effort is at stake.

The second contribution of the first study is the conceptualization, operationalization, and empirical test of the social-emotional process domain. In line with past research, it was demonstrated that self-other trade-offs, the backbone of cooperative behaviors, require a dual emotional process (i.e., the multidimensional property), that is, a continuum between affiliating and distancing emotions. In the current context, individuals anticipated guilt in order to help them to establish and maintain valuable relationships, whereas anticipated pride help them to protect the self. Finally, with the bifactor modelling, it was supported the idea that anticipated guilt and pride operate in parallel and reflect a higher-level common construct, a general factor.

5 TESTING THE BOUNDARY CONDITIONS OF THE CONCEPTUAL MODEL (H3)

Study 2 and Study 3 tested the hypothesis that the relation between social emotions (e.g., pride) and preferences for defection versus reciprocating is not fixed, but malleable. Specifically, the role of an affective state on pattern behaviors (i.e., defection) can be altered by the accessibility of thoughts (e.g., Huntsinger, Isbell, & Clore, 2014; Pastötter, Gleixner, Neuhauser, & Bäuml, 2013; Fishbach & Labroo, 2007). This somewhat counterintuitive finding is particularly relevant because it demonstrates that the role of social emotions in choice situations may be more complex than it has been considered in previous studies. Customers choices are not made in vacuum, and a reference alternative is central to conceptual models aiming to integrate an affective state into a choice model.

The objective of this chapter is to document the Study 2 and Study 3, which, taken together, support the H3 and the theoretical arguments made about the malleability property. Study 2 replicates Study 1 with one variation: rather than asking how much pride was associated with the possibility of defection, participants were asked how much pride was associated with continuation. Study 3 attempted to extend previous findings using integral emotions in a 2-way full factorial design. Such additions provide further evidence of the malleability property of emotions.

5.1 STUDY 2

Hypothesis 3 predicted that the social function of an emotion depends on the framing of the decision at hand; specifically, anticipated pride functions as distancing from other when the decision is framed as defection (Study 1) and as affiliating with other when it is framed as continuation (Study 2). The rationale behind it is that it makes inclinations about continuation or reciprocation more accessible, and positive emotions promote (and negative ones inhibit) what is most accessible in mind. Therefore, to support the idea that the relationship between social emotions and preference for interpersonal alternatives are malleable, the hybrid choice model should present (1) an acceptable goodness-of-fit, (2) compared to Study 1, the parameter estimates involving the pride factor should be inverted, (3) and the structure, interrelationship among other variables should mostly remain unchanged.

Because the decision frame factor was not manipulated with random assignment in Study 2, it is acknowledged that there is less compelling support for counterfactual inferences for the observed estimates. Namely, the reversal effect observed in the social function of pride

in Study 2 could differ from that in Study 1 in many systematic (nonrandom) ways other than the decision frame. To assess this potential bias, a randomization exercise was conducted. First, the three scale items used to measure pride were averaged to form an overall pride index ($\alpha = 0.91$), and then the means were compared across studies; the average in the Study 2 (M=4.53) was 0.880 higher than in Study 1 (M=3.65, t(1757.9) = -13.205, p-value < 0.01). Next, the aggregated sample of 1,789 participants from Study 1 and Study 2 was split into two different groups of 833 and 956 participants in a random way; this process was replicated 25,000 times. Third, the difference for means of these two 25,000 new groups was calculated and compared to the 0.880 difference found in the first step. The rationale behind this procedure is to calculate the likelihood that given 956 individuals (sample size in Study 2) would have 0.880 higher overall pride index than the remaining 833 (sample size in Study 1). The greater this likelihood, the greater is the likelihood that there is an alternative explanation for the observed effect, and, in turn, to worry about ruling it out in order to get a more valid estimate of the decision frame effect (Shadish, Cook, & Campbell, 2002).

Indeed, none of the 25,000 new differences were bigger in absolute value than 0.880 (Min. = -0.355; Max. = 0.297). Figure 7 presents the histogram from these 25,000 points. Furthermore, non-significant difference at 0.05 significance level was found in sociodemographic variables across studies. The data from both studies was collected from the same online panel, in which was applied the same custom prescreening variables, and collected within a 30-day period. Thus, self-selection bias appears to have no serious effect on the results of Study 2.

Figure 7 – Histogram of Differences for Overall Pride Index
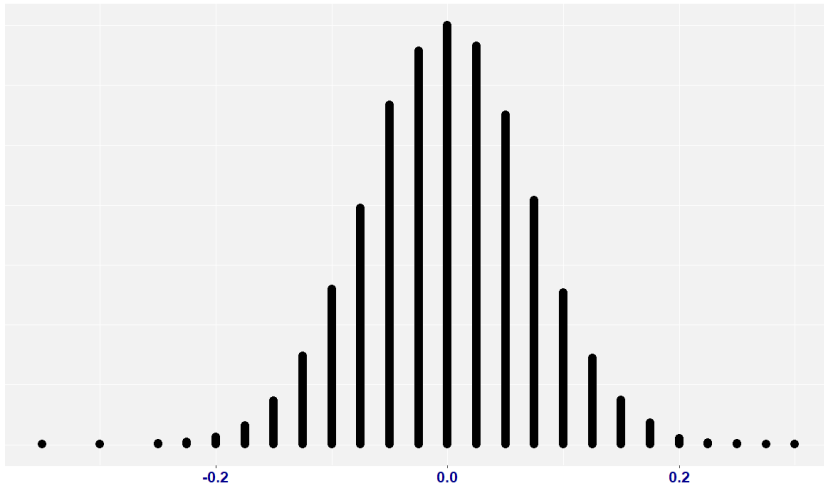
Notes. Number of dots is 25,000.
Source: The author – R output (2020).

5.1.1 Method

This study employed a one factor (past effort), two-level (absent vs. present) between-subjects design, in which participants were randomly assigned to one of the two conditions. After the manipulation, they faced the choice task, and then the anticipated emotions were measured. Results were analyzed with the same two steps of the Study 1 – a confirmatory factor analysis with covariate, and the hybrid choice model.

956 participants were recruited from the Prolific online panel and received €0.50 compensation for their participation. To participate, individuals had to be between 25 and 45 years old and to live in the United States. The questionnaire was programed and distributed via Qualtrics. Study 1 was replicated, and the procedures are not detailed in this chapter. The only difference from Study 2 to Study 1 was the framing of the pride question. In Study 1, both guilt and pride indicators were worded as defection (e.g., When you were considering your alternatives, how did you feel when you thought about CHANGING to the SEC COMPANY (THE ALTERNATE INSURER)?"). In Study 2, however, pride scale ($\alpha = 0.91$) was worded as continuation, "When you were considering your alternatives, how did you feel when you thought about STAYING with ANGEL (YOUR CURRENT INSURER)?", while guilt scale ($\alpha = 0.92$) remained unchanged.

5.1.2 Results

Socio-Demographics Statistics. Table 16 presents the descriptive statistics of socio-demographics statistics from Study 2. Importantly, no significant difference at 0.05 level was found between Study 2 and Study 1.

Table 16 – Socio-Demographics Summary Statistics

Variable	Values	N (%)
What is your gender?	Female	513 (53.7%)
	Male	443 (46.3%)
How old are you?	25 – 29 years	398 (41.6%)
	30 – 34 years	252 (26.4%)
	35 – 39 years	181 (18.9%)
	40 – 45 years	125 (13.1%)
What is your personal annual income?	$10,000 or less	193 (20.2%)
	$10,001 - $20,000	101 (10.6%)
	$20,001 - $30,000	102 (10.7%)
	$30,001 - $40,000	110 (11.5%)
	$40,001 - $50,000	80 (8.37%)
	$50,001 - $60,000	80 (8.37%)
	$60,001 - $70,000	70 (7.32%)
	$70,001 - $80,000	56 (5.86%)
	$80,001 - $90,000	45 (4.71%)
	$90,001 - $100,000	37 (3.87%)
	$100,001 - $110,000	22 (2.30%)
	$110,001 - $120,000	12 (1.26%)
	$120,001 - $130,000	10 (1.05%)
	$130,001 - $140,000	4 (0.42%)
	$140, 001 - $150,000	9 (0.94%)
	More than $150,000	25 (2.62%)
What is the highest level of education you have completed?	Less than High School	7 (0.73%)
	High School diploma	219 (22.9%)
	College/ Bachelor's degree	520 (54.4%)
	Masters/ Doctoral Degree	210 (22.0%)
How many dependents do you have?	I have no dependent	671 (70.2%)
	1 dependent	120 (12.6%)
	2 dependents	99 (10.4%)
	3 dependents	44 (4.60%)
	4 or more dependents	22 (2.30%)
Do you have life insurance?	Yes, I do.	381 (39.9%)
	No, but I've already had it in the past.	55 (5.75%)
	No, but someone in my residence does.	144 (15.1%)
	No, I don't nor anyone in my residence.	368 (38.5%)
	Other.	8 (0.84%)

Source: The author – R output (2020).

Exploratory Analysis and Basic Psychometric Characteristics of Latent Variables. Table 17 summarizes the distribution of choices across conditions. In the aggregate sample, 43.0% preferred defection; in the neutral condition, 57.4% of participants preferred defection, whereas, in the past effort condition, this number dropped to 29.2%. This difference is significant, with $\chi^2_{(1)} = 78.600$ (p < 0.01), demonstrating that the manipulation worked in Study 2 either[10].

Table 17 – Behavioral Outcome across Conditions

	All (n=956)	Neutral condition (n=469)	Past effort condition (n=487)
Defection to alternate insurer	411 (43.0%)	269 (57.4%)	142 (29.2%)
Continuation with current insurer	545 (57.0%)	200 (42.6%)	345 (70.8%)

Notes. The relation between these variables was significant in a chi-square test (p < .001).
Source: The author – R output (2020).

Figure 8 summarizes the outputs from the 6-item social emotion instrument. In addition, means, standard deviations, and t-tests are presented in Table 18. In line with H₃, pride indicators (dignity, esteem, pride) now increased with the past effort, demonstrating the same pattern of causation from the covariate as guilt indicators did. Further analysis using t-tests showed that such differences are statistically significant; the participants who received the benefit compared to the participants in the control group demonstrated higher values of anticipated dignity t(954) = 7.928, p < 0.01, esteem t(954) = 7.000, p < 0.01, and pride t(954) = 6.879, p < 0.01, while making decisions. Hence, receiving a benefit did not neutralize feelings of pride as occurred in Study 1. On the contrary, the benefit received through a social interaction boosted feelings of pride, suggesting that pride is now functioning as affiliating.

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[10] The effect size of the past effort on continuation can be calculated by the odds ratio metric (the odds of success in the treatment group relative to the odds of success in the control group); this statistic is higher in Study 2 (effect size = 3.26) than in Study 1 (effect size = 2.09). Because Study 1 and Study 2 are identical in the choice task part of the experiment and the only difference is after that, in the measurement of the social emotional component, one could argue that these effect sizes should not be that different. However, the product of two uniform distributions do not result in a third uniformly distribution, but in a normal distribution (Devore & Berk, 2012). Because Study 2 have a sample size higher than Study 1, extreme values for the ratio between current and alternate seller (generated by uniformly distributed random numbers) were less representative in Study 2 than Study 1.

Figure 8 – Results of Rating Exercise by Conditions
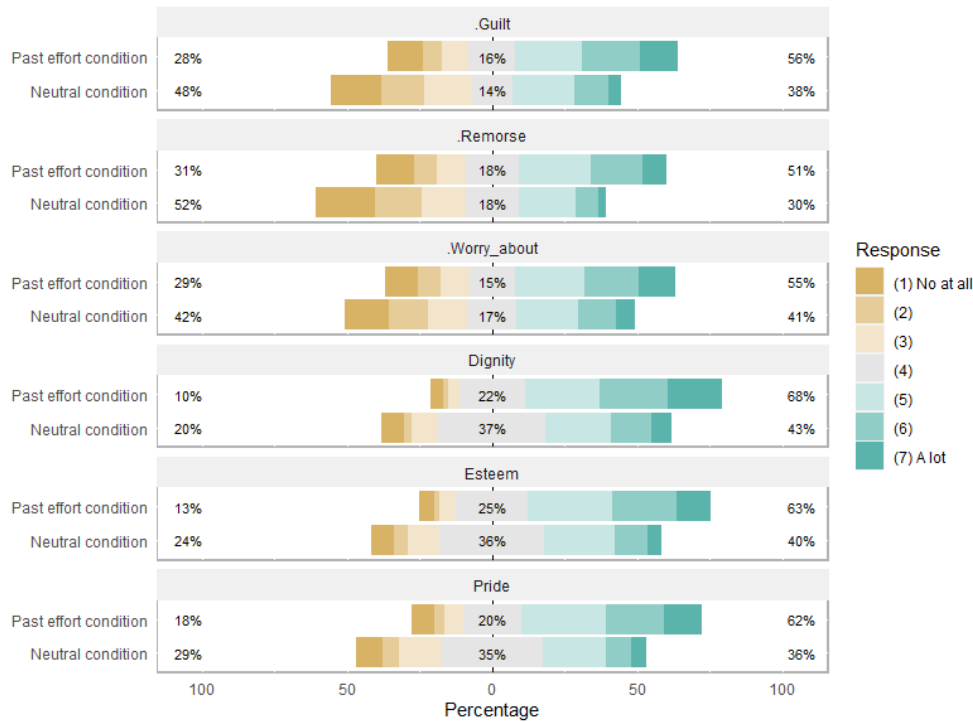
Source: The author – R output (2020).

Table 18 – Means (standard deviations) for Psychometric Indicators

Indicator	All (n=956)	Neutral condition (n=469)	Past effort condition (n=487)	Difference for means
Overall guilt score	3.97 (1.72)	3.58 (1.66)	4.34 (1.69)	0.76***
Guilt	4.03 (1.88)	3.61 (1.80)	4.43 (1.87)	0.82***
Remorse	3.78 (1.81)	3.34 (1.71)	4.20 (1.81)	0.86***
Worry	4.10 (1.86)	3.81 (1.82)	4.39 (1.85)	0.58***
Overall pride score	4.53 (1.41)	4.17 (1.36)	4.88 (1.38)	0.71***
Dignity	4.71 (1.53)	4.32 (1.49)	5.08 (1.47)	0.76***
Esteem	4.51 (1.49)	4.17 (1.45)	4.83 (1.46)	0.66***
Pride	4.38 (1.60)	4.03 (1.50)	4.72 (1.63)	0.69***

Notes.
***p < .01
 **p < .05
  *p < .10

Because guilt and pride are now positively correlated, it would be even more reasonable that the 6-item instrument is unidimensional. Then, the same procedures from Study 1 was used to check it. Maximum likelihood was used to fit two exploratory factor analysis with ordered outcomes. Table 19 shows that two eigenvalues are greater than 1 and the remaining are closed

to zero. Furthermore, the null hypothesis that the model with one factor is equivalent to the model with two factors was rejected, with $\chi^2_{(5)} = 1536.847$, (p < 0.01). Moreover, the chi-square test of model fit indicates the plausibility of the model, with $\chi^2_{(117462)} = 3762.653$, (p = 1.000).

Table 19 – Eigenvalues for Sample Correlation Matrix

Order	Eigenvalues
1	3.814
2	1.418
3	0.232
4	0.208
5	0.196
6	0.133

Notes. 6-item instrument.
Source: The author – Mplus output (2020).

Finally, Table 20 shows that the loadings from the bidimensional model are meaningfully interpretable, with the factor one reflecting guilt indicators, while the factor two reflecting pride ones. Taken these results together, the idea that a bidimensional model is preferred to this 6-item instrument was demonstrated.

Table 20 – Factor pattern for the two-factor, rotated solution

Item	F1	F2
Guilt	**0.948***	−0.008
Remorse	**0.860***	0.086*
Worry	**0.869***	−0.001
Dignity	0.002*	**0.901***
Esteem	0.047	**0.874***
Pride	−0.046	**0.929***

Notes. Estimator method: Maximum Likelihood; Rotation method: Geomin; Type of rotation: Oblique; Loadings larger than .40 are in bold; * significant at 5% level. Loglikelihood: −8272.435; AIC: 16638.869; BIC: 16867.419; BIC (sample-size adjusted): 16718.149.
Source: The author – Mplus output (2020).

Setting the Ground for the Conceptual Model. To further analyze the dimensionality of the latent variables, two MIMIC models (with a weighted-least square and maximum likelihood estimators) were fitted to the data. Because the same pattern results from Study 1 was observed in the second study, only the selected model outputs are detailed (the bifactor model with a path from the covariate to the general factor).

Table 21 shows the fit of the selected model, estimated with weighted-least square. The substantive, absolute fit indices chi-square is marginally significant, indicating that, the null hypothesis that the predicted model and observed data are equal could not be rejected at 0.05 of significance, $\chi^2_{(8)}= 13.848$ (p = 0.08). Other fit indices fortified that the model is reasonably consistent with the data and so did not require respecification, RMSEA = 0.028 (0.000~0.052), CFI = 0.999, TLI = 0.999. In addition, measurement invariance across experimental conditions was again stablished, since there were no modification indices for direct effects of indicators regressed on the covariate at the default critical value in Mplus.

Table 21 – MIMIC Models Fit with the Weighted-Least Square Estimator

	Model 4a (bi-Factor')
# Free Parameters	49
Chi-square test	13.848
Degrees of Freedom	8
P-Value	0.08
χ^2 / d.f.	1.731
RMSEA	0.028
90 Percent C.I.	0.000~0.052
Probability <= .05	93.7%
CFI	0.999
TLI	0.999

Notes. Model 4a is a bifactor with the general factor on past efforts.
***p-value < .01
  **p-value < .05
    *p-value < .10
Source: The author – Mplus output (2020).

In the next step, the MIMIC model was estimated with the maximum likelihood; the results appear in Table 22. All parameter estimates are significant and, as expected, their signs are positive. Specifically, guilt and pride indicators varied in the same direction, because all loadings of the general factor are positive. It seems evidence that H₃ received supported.

Not all indicators loaded higher on the general factor than on specific factor as in Study 1. For instance, remorse ($\lambda_{\text{remorse\_GUILT}} = 2.908$, $p < 0.01$; $\lambda_{\text{remorse\_G}} = 2.660$, $p < 0.01$) and worry ($\lambda_{\text{worry\_GUILT}} = 2.699$, $p < 0.01$; $\lambda_{\text{worry\_G}} = 1.881$, $p < 0.01$) are better measures of the guilt factor than the general factor. The guilt item remains with the greatest discriminatory power; however, the markedly negatively valenced inclinations from Study 1 was not replicated, since the loading size from guilt and pride indicators are more balanced.

Table 22 – Estimates from MIMIC Models with Past Efforts as Covariate

	Model 4a (bi-Factor')
Measurement equations:	
Guilt ← G *factor*	3.804***
Remorse ← G *factor*	2.660***
Worry ← G *factor*	1.881***
Dignity ← G *factor*	2.814***
Esteem ← G *factor*	2.795***
Pride ← G *factor*	2.664***
Guilt ← GUILT *factor*	5.043***
Remorse ← GUILT *factor*	2.908***
Worry ← GUILT *factor*	2.699***
Dignity ← PRIDE *factor*	2.358***
Esteem ← PRIDE *factor*	2.964***
Pride ← PRIDE *factor*	2.643***
Structural equations:	
G *factor* ← Past efforts of the current seller	0.780***
Model fit information:	
Observations	956
# Free Parameters	49
Loglikelihood (LL)	−8202.702
Akaike (AIC)	16503.404
Bayesian (BIC)	16741.679
Adjusted BIC	16586.057

Notes. Model 4a is bifactor with the general factor on past efforts.
***p-value < .01
 **p-value < .05
  *p-value < .10
Source: The author – Mplus output (2020).

Finally, the Model 4a were revisited with all explanatory variables (price, length of contract, and personal income) as covariates. Results from this analysis are showed in Appendix B. Importantly, the inclusion of these explanatory variables worsened the model fit (LL = −8200.796, AIC = 16513.591, BIC = 16785.905, Adjusted BIC = 16608.052) in comparison to Model 4a. Also, none of these variables has a significant effect on the general factor. A

likelihood test ratio further supports that there was no fit improvement with the additional variables: the critical chi-square value at 5% significance level is 14.07 with 56−49=7 degrees of freedom. The test statistic is $2*((-8200.796) - (-8202.702)) = 3.812$, which is not greater than the critical value. Thus, the idea that the social-emotional process does not vary as a function of variables other than social interactions was replicated.

Main Results. The fit of the structural model for Study 2 is reasonably consistent with the data, with McFadden's R-squared = 29.3%. The model fit information appears in Table 23 and the structural path models' estimates appear in Table 24. The same analytical procedures from Study 1 was applied; that is, it was used the same deterministic utility function (Equations 2 and 3), the structural equation (Equation 4), the measurement equations (Abou-Zeid and Ben-Akiva, 2014), the mediation equation (Equation 5), as well as the specification of main variables.

Table 23 – Hybrid Choice Model: Model Fit

	Null Model	Model 4b (bi-Factor')
Observations	956	956
Free Parameters (K)	1	58
Loglikelihood (LL)	−12360.942	−8737.718
Akaike (AIC)	24723.885	17591.436
Bayesian (BIC)	24728.747	17873.476
Adjusted BIC	24725.572	17689.270
Rho-square	0.0%	29.3%
Rho-square-adj.	NA	28.8%

Notes: Model 4b is a bifactor with the general factor as the mediator variable. AIC = −2LL + 2K; BIC = −2LL + Kln(n); Adjusted BIC = −2LL + Kln((n + 2)/24); Rho-square = $1 - \frac{LL_{full}}{LL_{intercept}}$); Rho-square-adj. = $1 - \frac{LL_{full} - k}{LL_{intercept}}$. Source: The author – Mplus output (2020).

The structure of the results is similar to the Study 1, except for, as expected, the direction of the loadings of pride indicators. It is found support for H3 in the nomological relationship among pride indicators and other variables. First, the relationship between the general factor and pride indicators (i.e., $\lambda_{dignity\_G} = 3.309$, $\lambda_{esteem\_G} = 3.292$, $\lambda_{pride\_G} = 3.116$, $p < 0.01$) is positive and significant as much as the guilt indicators ($\lambda_{guilt\_G} = 3.247$, $\lambda_{remorse\_G} = 2.284$, $\lambda_{worry\_G} = 1.557$, $p < 0.01$). Therefore, guilt and pride ratings are positively correlated. Second, the structural path from past efforts of the current seller to the general factor is positive and significant ($\alpha_{p\_efforts} = 0.708$, $p < 0.01$). It indicates that the greater the perceived efforts, the

greater this underlying latent general factor and, in turn, their observed pride indicators. Third, the effect of the general factor on defection utility is negative and significant (B_{G_FACTOR} = −1.120, p < 0.01), demonstrating that the general factor decreases the probability of defection. Fourth, rather than a competitive mediator, the general factor is a complementary mediator, that is, the a*b indirect and c direct effects are of the same sign (Zhao, Lynch, & Chen, 2010). Taken together, these results supported the malleability property of anticipated social emotions in defection decisions, as predicted by H3.

In comparison to Study 1, there are other apparent differences in the parameter estimates. The higher loadings on the general factor come from the pride indicators. It seems that, when both social emotions are promoting cooperative behaviors, feelings of dignity, esteem, and pride dominate the general factor. The general factor inclinations are replaced with more positively valenced ones and appraisals are more associated with pride than guilt. In addition, all three pride loadings on the general factor were larger than on the specific factor, demonstrating that these indicators are better measures of the general factor than the pride factor itself. Finally, the direct effect of the past effort ($B_{P\_EFFORTS\_DIR}$ = −0.781, p < 0.01), the general factor effect (B_{G_FACTOR} = −1.120, p < 0.01), and the total effect of past effort ($B_{P\_EFFORTS\_TOT}$ = −1.575, p < 0.01) are larger than those in Study 1. However, the proportion of the total effect that is mediated by social emotions decreased from 61.4% in Study 1 to 50.3% in Study 2. The rest of parameters values, signals, and significance, such as price and length of contract attributes, had no notable differences.

Table 24 – Hybrid Choice Model: Parameter Estimates

	Model 4b (bi-Factor')
Measurement equations:	
Guilt ← G *factor*	3.247***
Remorse ← G *factor*	2.284***
Worry ← G *factor*	1.557***
Dignity ← G *factor*	3.309***
Esteem ← G *factor*	3.292***
Pride ← G *factor*	3.116***
Guilt ← GUILT *factor*	5.534***
Remorse ← GUILT *factor*	3.229***
Worry ← GUILT *factor*	2.930***
Dignity ← PRIDE *factor*	1.669***
Esteem ← PRIDE *factor*	2.249***
Pride ← PRIDE *factor*	2.071***
Structural equations:	
G *factor* ← Past efforts of the current seller **(a)**	0.708***
Utility function:	
Alternative-specific constant (ASC)	0.230^{ns}
Monthly rate of current seller (in dollars)	−2.751***
Monthly rate of alternate seller (in dollars)	−2.994***
Length of contract (in years)	0.153*
Low-income	−0.804***
Medium-income 1	−0.450*
Medium-income 2	-0.324^{ns}
Past efforts of the current seller **(c)**	−0.781***
G *factor* **(b)**	−1.120***
Indirect and total effects:	
Past efforts of the current seller via G *factor* **(a*b)**	−0.793***
Past efforts of the current seller total effect **(c + a*b)**	−1.575***

Notes.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

5.1.3 Discussion of Results

The second study replicated the findings from Study 1; the relational value positively impacts consumer choices, and this effect is partially mediated by anticipated social emotions. Furthermore, the anticipated guilt and pride were found to be part of the same higher construct even when positively correlated, as indicated by the bifactor model. Different from Study 1, however, the nomological role of the anticipated pride was reversed (malleability property). Rather than being positively associated with defection, anticipated pride functioned as affiliating and was found to be positively associated with continuation with the seller.

Moreover, as demonstrated by the general factor loadings, pride (positive valence) was found to be dominant in the social-emotional process when compared to guilt (negative valence). It suggests that, when pride and guilt are functioning as affiliating simultaneously, the positively valenced emotion, in comparing to a negatively one, has a stronger effect on the consumer appraisals. The implications of these findings for marketing theory and practice are recovery in the final chapter.

Although Study 1 and Study 2 demonstrated that feelings of pride can both increase and decrease cooperative behaviors, it is important to address some issues in order to increase the validity of these findings. First, only the reversal effect of the pride was examined and a similar analysis was not conducted for guilt or a negatively valenced emotion. Second, Study1 and Study 2 were conducted independently of each other, in the absence of random assignment for the decision frame by affect conditions. Third, guilt and pride were measured always after decisions. Although it was found evidence in the latent class analysis that the behavioral outcomes varied as a function of the anticipated emotions, these anticipated emotions had no causal effect on behavioral outcomes. They were "just" own cognitions reflecting the expected emotional consequence of a specific choice. Study 3 attempts to fill those questions.

5.2 STUDY 3

This study consisted of four conditions designed to show that the decision frame and the valence would interactively predict the probability of defection. Specifically, it was expected that a defection frame (e.g., when participants were asked whether they would or not defect from current seller; see Figure 9 for an illustration) would make defection behavior more salient and, in turn, participants would adopted it as reference during the evaluation of alternatives. On the other hand, in a staying frame (e.g., participants were asked whether they would stay or not with the current seller), participants would be inclined to adopt cooperation behaviors as the reference. The positive or negative valence would then confer a "go" or "stop" value, respectively, for the current reference alternative. For instance, positive valence would increase defection probabilities in the defection frame condition, but would decrease defection probabilities in the staying frame condition. Negative valence would present the reversal of this pattern, that is, it would increase defection probabilities in the staying frame condition (e.g., the negative affect would saying "stop" to the reference outcome) and decrease that in the defection

frame condition. These results would show that emotional influences on self-other decisions depended on the decision frame, supporting H_3 and the malleability property.

5.2.1 Method

Pilot. A pretest was conducted to check whether the manipulation would elicit the desirable emotional responses. Because the third study aims to examine the interaction between valence (i.e., positive versus negative feelings) and decision frame (i.e., staying versus defection), the neutral condition from previous studies was replaced by a valenced negative condition (the rest of the vignette remained unchanged). It was done with the current seller, Angel, betraying participants. In the hypothetical scenario, participants call Angel and ask for help with the tax form. Angel says to meet in the coffee shop but s/he gets there late because "Angel had to fulfill the request of another customer". The rationale behind this manipulation is that it would elicit negative social emotions reflecting moral violation in response to a negative relational disconfirmation. It should generate feelings of betrayal and neutralize gratitude (Harmeling et al., 2015). Therefore, the negative condition should produce an opposite emotional response to the past effort condition not only in valenced terms (negative vs. positive, respectively) but also in the underlying appraisal patterns (e.g., betrayal vs. gratitude, respectively).

Participants were 34 workers from Prolific who participated in the experiment for €0.15 Pound sterling; the questionnaire was distributed through Qualtrics. The design was a one factor (valence), two-level (negative versus positive) between-subjects design, in which participants were randomly assigned to one of the two conditions. After reading the text, participants were introduced to the following question in order to check the efficacy of the manipulation: (1) "How did the reading activity make you feel?" (1= *very negative*, 9 = *very positive*; adapted from Huntsinger, Clore, & Bar-Anan, 2010), (2) "How likely is it that you would choose each alternative? (*the answer must total 100*; adapted from Study 1 and 2), and "When you were considering your alternatives, how did you feel when you thought about selecting the other insurer available to you (the SEC Company)" (1= *a lot of guilt*, 9 = *a lot of pride*; adapted from Study 1 and 2).

Individuals who was helped by Angel (the past effort condition) indicated that the reading activity make them feeling more positive or less negative (M = 6.05) than those who was betrayed by the seller (negative condition) (M = 4.38, t(32) = 3.49, p < 0.01). Furthermore, participants in the negative condition indicated that they felt less guilt or more pride when

thought about defection (M = 5.19) than those who was helped by the seller (M = 3.80, t(32) = 2.41, p < 0.05). These results demonstrated that the manipulation worked as expected. Finally, participants in positive condition reported lower probability of defection (M = 67.9%) than those who was betrayed by the seller (M = 36.6%, t(32) = 3.22, p < 0.01). Importantly, the effect sizes in the probability question suggested that a ceiling effect caused by the betrayal would not invalidate the main study (e.g., in the betrayal condition, participants choosing continuation being very rare or absent).

Participants and Design. In the Study 3, participants were 296 people (166 females) ranging from 25 to 45 years old (M = 32 years) from Prolific who participated in the experiment for €0.20 Pounds. The design was a 2 (valence: negative vs positive) by a 2 (decision frame: defection vs. continuation), between-subjects design. A third factor (current seller price: $27 vs $ 28 vs $29) was also added into the design, but it is defined as a covariate. Besides age (i.e., between 25 and 45 years old) and current country of residence (i.e., United States), participants were prescreened based on personal annual income, that is, $30,000 or less. This increased the homogeneity of the sample, facilitating the calibration of the prices in the study.

 Procedure. Participants read the adapted version of the experimental vignette, as described in the pilot section. After that, they were introduced to the choice task with the two alternatives (i.e., Angel and SEC Company). The second treatment in the experiment manipulated the decision frame. Half of participants were randomly assigned to a choice task in which the decision was framed as continuation (defection); specifically, the question was worded as "Would you stay with Angel" ("Would you defect to the SEC?"). The alternatives were also framed in one of the two behavior outcomes in order to fortify the priming effect, with "Yes, I would stay with Angel/ No, I would not stay with Angel" ("No, I would not defect to the SEC/ Yes, I would defect to the SEC"). The idea behind such design was to manipulate the accessibility of an outcome, making a specific alternative as reference. A screen shot of the choice task appears in Figure 9.

Figure 9 – Screen Shots of the Choice Task
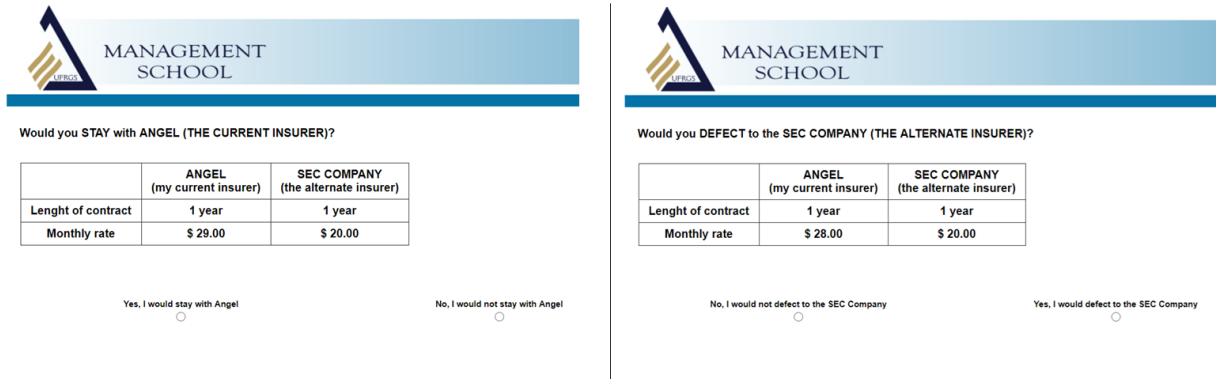
Notes: Continuation decision frame appears in the screen shot to the left, whereas the defection decision frame does in the to the right.
Source: The author – Qualtrics screen shot (2020).

Regarding the choice profiles, the rate of the alternate insurer was kept constant in $20; the length of contract was also kept constant in 1 year for both alternatives. Beside valence and decision frame, the monthly rate of the current seller was randomly varied across participants with $27, $28, and $29 values. The randomness in prices would minimize the risk of poorly selected prices. That is, if the utility of alternatives were not balanced across the sample, a ceiling effect could emerge. Furthermore, choice models typically involve a price attribute. To the definition of price, a post examination of the aggregate data from Study 1 and Study 2 revealed that participants who make $30,000 or less per year were almost indifferent between Angel and SEC options when Angel's rate was, all else being equal, 140% larger than SEC's one. After (before) this cutoff, participants preferred SEC (Angel). Then, this cutoff was used to compute the mean values of variations in the experiment (e.g., $28/ $20). Finally, the position of appearance of Angel and SEC alternatives (i.e., left vs. right) was randomized in order to avoid order effects.

5.2.2 Results

To formally test the interaction between valence and decision frame (price is a covariate in this model), a binary logit model was run in Stata v.13 software. The model regressed customer choice on two binary predictors that were interacted and on a continuous covariate that were not part of the interaction; the model was fit by the maximal likelihood estimator, in which the

Defection =

$$B_{(0,0)} + B_{VAL(1,0)} * Valence + B_{FRA(0,1)} * Frame + B_{INT(1,1)} * Valence * Frame + B_{PRICE} * Price \quad (6)$$

with Valence = takes the value 1 if the individual was in positive valence condition and 0 otherwise (negative); Frame = takes the value 1 if the individual was in the continuation decision frame condition and 0 otherwise (defection); Price = current seller's monthly rate with the values \$27, \$28, and \$29. The dependent variable takes the value 1 if the alternate insurer is chosen (defection) and 0 otherwise (continuation).

The fit of Study 3's binary logit model is acceptable, with Log likelihood = −136.260, Rho-square = 32.9%. The parameter estimates from factor variables and the interaction term are significant ($p < 0.05$), while the estimates from the constant ($B_{(0,0)} = 6.167$, $p = 0.242$) and the price are not ($B_{PRICE} = -0.169$, $p = 0.364$). The non-significance of price coefficient is probably due to the statistical power of the design, that is, the increments in price levels is small to the number of observations. The valence condition has, as expected, a negative effect on defection ($B_{VAL(1,0)} = -2.129$, $p < 0.01$); participants in the past effort condition are less likely to defect than participants in the negative condition. On the other side, the main effect of the frame decision is positive ($B_{FRA(0,1)} = 1.095$, $p < 0.05$), suggesting that participants who were asked "Would you Stay?" are less likely to defect than participants in the "Would you defect?" condition. However, there was no theoretical reasoning for this main effect and it was manipulated because of the interaction term.

Importantly, the interaction term is significant ($B_{INT(1,1)} = -1.897$, $p < 0.01$), and then the expected defection probability for each of the four cells of the factorial interaction can be computed (Ai & Norton, 2003). A probability metric is the probability of an outcome (i.e., choice) being one (i.e., defection occurred) for a specific cell and it is defined as exp(Xb)/(1+exp(Xb)), where Xb is the linear predictors. This approach was used to the test of

hypothesis. The computation of the defection probabilities for each factorial cell, at the mean value of the covariate (i.e., $28), appear in the Table 25 and Figure 10.

Table 25 – Defection probability as a function of experimental conditions at the mean value of the covariate

	Frame=0 (defection)	Frame=1 (continuation)	Differences[1] (Frame=0 – Frame=1)
Valence=0 (negative)	80.5%***	92.5%***	−12.0%**
Valence=1 (positive)	33.0%***	18.3%***	+14.7%**

Notes. [1]: The standard errors of differences were computed with the Delta-Method (Hosmer & Lemeshow, 2013).
***$p < .01$
**$p < .05$
*$p < .10$

Source: The author – Stata output (2020).

The delta-method was used to compute the standard errors of the differences for the defection probabilities across valence conditions (Hosmer, Lemeshow, & Sturdivant, 2013) and to test the hypothesis that they are not equal to zero. As expected, the difference between frame=0 and frame=1, at valence=0 and the mean price=28, is negative and significant ($\Delta_{VAL=0}$ = −12.0%, $p < 0.05$). That is, when a positive emotion is at stake, consumers defect more when the reference outcome is defection. On the other hand, the difference between frame=0 and frame=1, at valence=1 and price=28, is positive and significant ($\Delta_{VAL=1}$ = +14.7%, $p < 0.05$). When a negative emotion is at stake, consumers defect more when the reference outcome is staying. These differences were also significant at the $27 ($\Delta_{VAL=0}$ = −10.6%, $p < 0.05$; $\Delta_{VAL=1}$ = +15.8%, $p < 0.05$) and $29 ($\Delta_{VAL=0}$ = −13.5%, $p < 0.05$; $\Delta_{VAL=1}$ = +13.4%, $p < 0.05$) values for the covariate.

Taken together, these results support the H3, which predicts that when positive (negative) emotions are high, consumers confer greater (lower) decision utility to the framed alternative in the self-other trade-off. Specifically, individuals experiencing positive affect defect less when asked "Would you stay?" than those asked "Would you defect?". It is because positively valenced affects confer a "go" value to the most salient decision frame. On the other hand, individuals in the negative condition (such as those who was betrayed by Angel) defect more when asked "Would you stay?" than those asked "Would you defect?". Because negative affects inhibit, say "stop" to current inclinations, such negative feelings say no to continuation and boost defection.

Figure 10 – Defection Probability as a Function of Experimental Conditions, at $28 value for the covariate
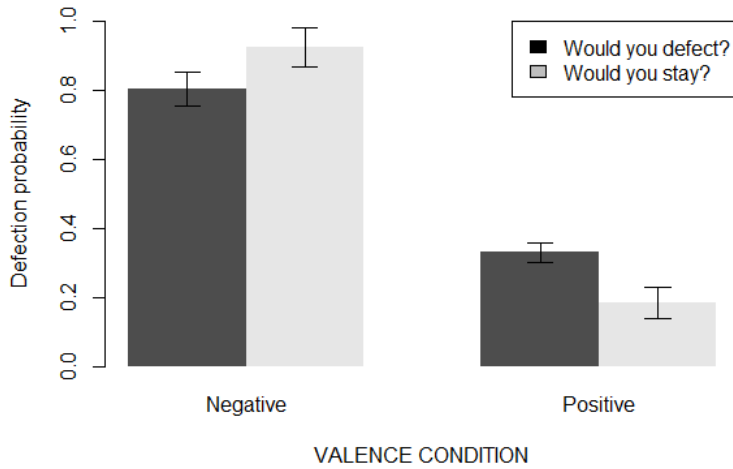
Notes: Defection probability was computed with logistic regression coefficients, with $P = \exp(Xb)/(1 + \exp(Xb))$. All differences are significant ($p < 0.05$); Higher values indicate a greater probability of defection; Error bars represent standard errors.
Source: The author – R output (2020).

5.2.3 Discussion of Results

Building on the findings from Study 1 and Study 2, Study 3 extends the malleable property of the connection between emotions and self-other preferences. The experimentally manipulation of valence by decision frame offers solider evidence of the interaction between them. Also, this study contributes to the conceptual model propositions by demonstrating the differential effects of positive and negative affective states on relational value and, in turn, the behavioral outcomes. These results contradict the idea that the relation between social emotions and prosocial behaviors is fixed, as claimed in past researches (e.g., Peloza et al., 2013). Rather, it is demonstrated that the influence of emotions on defection decisions depended on the decision frame. Importantly, the current results are in accordance with the mechanisms predicted by the malleability property and elaborated in H_3.

6 GENERAL DISCUSSION

This dissertation extends the marketing literature by theorizing that defection decisions are a special class of individual decision-making because consumers rely upon a social-emotional process to judge whether a relationship is worthy of consideration. Under the random utility-based discrete choice framework, it is offered a conceptual model in which past efforts and work are converted into decision utility through social emotions, and demonstrate the first principles of such process (i.e., mediating, multidimensional, and malleable). Study 1 demonstrates that anticipated guilt and pride underlies the same unobserved general factor; they mediate more than half of the effect of past efforts on defection utility; and explores the heterogeneity in decision process across subpopulations of consumers. Study 2 has found a reversal of the anticipated pride effect and shows the occurrence of the highly malleable nature of the affect-preference relationship. Finally, Study 3 expands the malleable property, providing evidence that affective valence interacts with decision frame to confer value for others.

As a field, marketing relationship research has not yet developed a defection decision framework at a disaggregate level. While the concept of a discrete transaction is not outside the purview of discipline, the primary focus of marketing is the exchange relationship (Hunt, 1983). In this line, much of the research on marketing relationship is continuous in nature, being conducted under the chain of marketing productivity framework (e.g., relationship marketing activities → relational assets → relational behaviors → financial outcomes; Pelser et al., 2016; Wetzel, Hammerschmidt, & Zablah, 2014). And the few empirical investigations on the defection decision-making and mechanisms ignore its emotional process-orientation (e.g., Hollmann, Jarvis, & Bitner, 2015; Wathne, Biong, & Heide, 2004) or do not offer a conceptual model rooted in a rigorous and well-tested theory as the random utility theory (e.g., Henderson, Steinhoff, Harmeling, & Palmatier, 2020; Lemon, White, & Winer, 2002). By proposing and testing the current conceptual model, the dissertation offers a rich framework that can provide several theoretical and managerial insights, which I discuss next.

6.1 THEORETICAL IMPLICATIONS

First, past research has demonstrated that the neglection of emotional mediators, such as gratitude, may systematically underestimate the return on investment of relationship marketing activities (e.g., Palmatier, Jarvis, Bechkoff, & Kardes, 2009). The current results expand these directions to defection behaviors at individual level, suggesting that, for instance, database marketing research that focuses exclusively on observational variables may fail to capture the true effect of relationship programs on churn rates (e.g., Kumar, Bhagwat, & Zhang, 2015). Importantly, however, results from latent class analysis in Study 1 demonstrated that the total effect of the past effort varies significantly between segments, because consumers may perceive, process, and respond differently to such initiatives. Therefore, another mechanism that makes relationship marketing effective at improving seller retention is not only the emotional responses caused by marketing strategies but also customers perceptions (which in turn affect the emotional responses) about the marketing strategies itself.

Second, it is found evidence that benefits received through social interactions can create a self-other trade-off that is marked by a distinct heuristic, based on the information value from anticipated guilt and pride simultaneously. This is consistent with the social functions of emotion and the affect-as-information perspective. The proposed emotional system is unique from other social emotions investigated in marketing relationship research such as gratitude, betrayal, and indebtedness. These latter emotions are other-caused outcomes, in the sense that the causation of the event is of external responsibility (Soscia, 2007). For example, people cannot feel grateful for what they did or chose (Emmos & Mccullough, 2004). The self-conscious emotion guilt (and pride), on the other side, occurs in response to accepting responsibility for a failure (success) of a standard, rule, or goal (Lewis, 2016), being directly associated to a specific act made by consumer (e.g., decision). Therefore, a distinguishing feature of the current framework is that, although consumers may feel gratitude or indebtedness as a result of past efforts or behaviors of sellers, it is the anticipated guilt and pride that are conceptual consistent with the consequentialist perspective of economic models and that provide the behavioral directions particular to choice situations (e.g., "Do A rather than B"). One interesting outcome of this analysis is the interplay among gratitude, betrayal, guilt, and pride that is likely to emerge in defection decisions. For example, results from the extra effort condition made participants to feel more grateful (positive valence) with the help of the seller; however, they felt more guilt (negative) or less pride (positive) when were judging defection. On the contrary, the betrayal condition in Study 3 resulted in participants feeling more negative,

and, when thought about defection, less guilt or more pride. In sum, gratitude (betrayal) seems to function as a proxy for the relational utility (disutility) of sellers, but they do not seem to dominate the very moment of a defection decision process.

Third, the reversal of the pride effect seemingly contradicts research on discrete emotions which has posited that, to manage consumers' emotions more effectively, marketers should identify the underlying appraisal patterns beyond valence (e.g., Kranzbühler, Zerres, Kleijnen & Verlegh, 2019). The present dissertation provides evidence that, at least in the continuation-defection dilemmas, there is heterogeneity of occurrences within the same emotion category as well as similarities across different emotion categories. It is because the role played by a specific emotion (e.g., pride) can be changed, and even inverted. Importantly, the key to predict such role is the information value conferred by the affect involved, specifically whether it is positive or negative (Huntsinger, Isbell, & Clore, 2014). For instance, pride may be defined as a subjective experience that occurs when one makes a comparison or evaluates one's behavior vis-à-vis some standard, rule, or goal and finds that one has succeeded (Lewis, 2008). In this sense, the value conferred by pride depends on the perspective of the comparison or the meaning of success. In Study 1, one could anticipate pride and use as a positive information (i.e., a green light) for defection whether the goal is to maximize the own payoff in the short term or to avoid the waste of money on a relationship that is not valuable. On the other hand, in Study 2, pride could act as a "go" signal for prosocial behaviors whether the goal is to avoid the debasement, degradation of being a free rider, to restore the exchange equity in a relationship (e.g., "I will not owe Angel a favor"), or to smooth the feelings of humiliation of the giver associated with gratitude (Emmons & McCullough, 2004). Similarly, the same rationale is true for anticipated guilt. The work of Peloza, White, & Shang (2013) serves as an example in this line. Peloza and colleagues proposed that self-accountability affects the preference for products promoted using ethical appeals and that this effect is mediated by anticipated guilt[11]. The authors claimed that "the group context appears to make people more

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[11] Specifically, Peloza and colleagues used an experimental design, in which participants were random assigned to either an alone (low self-accountability) or presence of others (high self-accountability) condition. After that, they chose between two granola bars, one containing an ethical appeal and another containing a self-benefit appeal (healthier and taster), and then were asked how much guilt they anticipated when they considered the decision opposite to the one they made. In the mediation analysis, the authors did not report the anticipated guilt's effect on product choice (Path$_b$), but they did the self-accountability effect on anticipated guilt (Path$_a$ = 0.36, p < 0.01) and the indirect effect on the ethical product choice (Path$_{a*b}$ = 1.47, p < 0.01). Making the calculations, guilt would have a positive effect on ethical product choice (e.g., 1.47 = 0.36 * Path$_b$, Path$_b$ = 1.47/0.36 = 3.89), leading authors to claim that "the group context appears to make people more self-accountable, in a way that makes them particularly avoiding potential guilt associated with selecting a less ethical option sensitive to".

self-accountable, in a way that makes them particularly avoiding potential guilt associated with selecting a less ethical option sensitive to" (Peloza, White, & Shang, 2013, p.113). In other words, the authors assumed that the link between guilt and ethical choices is fixed. A counterfactual explanation in line with the affect-as-feedback approach would state, however, that guilt was found to be positively associate with the ethical product choice because of the research design. Specifically, the manipulation increased the preference for the product promoted through the ethical appeal (e.g., in the highly self-accountability condition, participants chose the ethical option 70.4% of cases). In turn, most of the time, participants associated guilt to the self-benefit option, because participants were asked to associate guilt with the product they did not choose. As with anticipated pride, this pattern could be reversed whether the decision was framed as, for example, how participants felt when they considered the ethical choice. Since guilt "occurs when one makes a comparison or evaluates one's behavior vis-à-vis some standard, rule, or goal and finds that one has failed" (Lewis, 2008, p.742), in this case, consumer could anticipate guilt in choosing the ethical option because s/he failed to choose the self-benefit one, promoted as healthier. This variability in discrete emotions is also consistent with the theory of constructed emotion (e.g., Barrett, 2016), a theory based on modern neuroscientific evidence that rejects the "classical" view that emotions such as anger, fear, and sadness have distinct brain circuits. The theory defends that emotions are, in fact, subjective categorizations of continuous experiences of affect (a neurophysiological state characterized by valence and arousal) on emotion concepts from one's culture. In sum, the present dissertation contributes to the scholarly discussion on whether marketers should focus on discrete emotions or on a more valenced-based approach to manage consumer emotions. The present results indicate that marketing research should spotlight valence or, when claiming fixed connections between specific emotions and preferences, present their boundary conditions.

Fourth, the current results also provide insights for positive versus negative valence research. In Study 2, the loadings of pride indicators (positive valence) on the general factor was found to be dominant when compared to the guilt indicators (negative valence). Although there is evidence in favor of the idea that negative emotions have stronger effects on consumer judgment and behavior (e.g., Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Kahneman and Tversky 1979), other studies have found a opposite pattern, as the recent meta-analysis on the relation between emotions and firm-customer encounters (Kranzbühler, Zerres, Kleijnen & Verlegh, 2019). The current results suggest that, when pride and guilt are functioning as

affiliating simultaneously, the positively valenced emotion, in comparison to a negatively one, has a stronger effect on the consumer appraisals. In other words, consumers are more sensible to the information value provided by the consequence of a successful outcome than an unsuccessful outcome. This dominance of the positive relative to the negative can be explained in light of the idea that positive emotions foster physical health and may be indispensable for the optimal operation of psychological and physical structures (e.g., Fredrickson, 2001).

Fifth, in choice situations in which consumers face a trade-off between discrete alternatives, the information value of valence is used to validate or invalidate current mental inclinations. In this line, the current findings suggest that consumers adopt an alternative or behavioral outcome as reference. Otherwise, the information value of emotions would not interact with the decision frame of Study 3. For instance, instead of reasoning about alternatives conjointly, such as "Should I do A or B?", consumers seem to process a discrete choice situation as "Is A good or right? Is A bad or wrong?" (or "Is B good or right? Is B bad or wrong?"). These insights further suggest that, although consumer have the ability to change between different styles of processing (Huntsinger, Isbell, & Clore, 2014), discrete choice situations must have a frequently dominant or default alternative (e.g., status quo maintenance; Henderson, Steinhoff, Harmeling, & Palmatier, 2020). This dissertation demonstrates that the decision frame is a potential tool for altering a default or reference alternative in defection decisions.

Finally, to the best of author's knowledge, it is the first application of a conceptual model that incorporates consumer emotions into a discrete choice framework, testing mediation, dimensionality of a multifaceted construct, and the decision frame's priming effect. It offers novel directions on how emotions and other subjective experiences could be incorporated into conceptual models of individual decision-making with discrete alternatives. Importantly, it offers a research and analytical general structure that allows for any affect heuristic to be specified. Furthermore, latent variables can be predicted by experimentally manipulated explanatory variables, enriching the possibilities for causal relationship exploration. The approach is particularly useful in contexts in which alternatives reflect intrinsically conflicting goals, such as reciprocation versus defection. In such cases, the decision imposes a significant trade-off which is not easily amenable to an expectancy-valuation processes (probability x consequence), the information value of emotions increases, and an affect heuristic is likely to emerge (Clore, Schwarz, & Conway, 1994). Promising candidates

to take advantage of the current application would include research on risk versus return, ethical versus self-benefit products, healthiness versus tastiness food, and interporal choice.

6.2 PRACTICAL IMPLICATIONS

The attention to how economic actors use emotional information to make choices between sellers also offers managerial insights, in particular, for customer relationship management and customer experience management. First of all, managers must recognize that defection decisions are a distinct, highly emotional process in which the dilemma between cooperation versus competition is expected to emerge. Because customers follow a different decision process when they receive an extra effort (e.g., adaptation of policies, small favors, or considerations, such as meals, and gifts), sellers can maximize the return of their relationship marketing programs differentiating segments based on the benefits received and, in turn, communicating the elements that each segment is most likely to process. For customer who did receive extra efforts, for example, sellers should emphasize the elements that surround the self-other trade-off and the appraisals that underly guilt and pride, such as the opportunities by means of cooperation or minimize potential threats arriving from opportunist behaviors or the loss of power. For segments who did not receive an extra-effort (or do not perceive it as such), sellers should adopt a different strategy (e.g., the communication of benefits and relative advantages of the service itself, like price and quality), because it is likely that the social-emotional process is not at stake and the former arguments would be ineffective.

The current findings also highlight that marketers should dedicate special attention on the consumers' perceptions and beliefs about their efforts. As the latent class analysis demonstrates, there is significant heterogeneity in the way that the same effort is perceived by different groups, which, in turn, affected the past effort outcomes (e.g., churn rates). This idea is fortified by research on reciprocation, which demonstrates that cooperation levels is determined by the beliefs about others' intentions (Santa, Exadaktylos, & Soto-Faraco, 2018). Attitudinal data from surveys may be crucial in this task, since observational, transactional data from Customer Relationship Management software is hardly to capture such nuances.

Marketers could thoroughly investigate the standards, rules, or goals by which consumers compare vis-à-vis, and use this knowledge to improve their persuasion efforts and gather the most from their marketing relationship programs. For example, analyzing from a cross-cultural perspective in B2B markets, Japanese executives are more likely to be long-term

oriented than American executives (Hofstede, 2001). Therefore, it is also more likely that Japanese (rather than American) evaluate a defection decision with continuation with the current seller as a reference and then the renewal of a contract in good terms would configure success.

The concept of emotional experience has echoed among researchers across disciplines; psychologists, physicians, and neuroscientists have made a huge effort to determine better measures for, strategies to improve it, or why people should care about it (Mogilner, Aaker, & Kamvar, 2011). This interest also reached the marketing field, and researchers have begun to explore ways to incorporate emotional constructs into frameworks of customer experience management (e.g., Pansari & Kumar, 2017; Kumar, Rajan, Gupta, & Pozza, 2017) or to associate them with customer equity (e.g., Ou & Verhoef, 2017). In advertising campaigns, examples of such movement are numerous. Even when Coca-Cola changed its tagline from "Open Happiness" to "Taste the Feeling", it has kept the focus on happy people interacting with each other. Several organizations adopt fear-inducing tactics in commercial vehicles in an attempt to be more effective in stopping people to drink and drive or to quit smoking. As these examples suggest, managers do care about consumer emotions. However, the malleable, subjective nature of emotions in choice situations consistently found across this dissertation provides evidence that the connection between emotions and preferences are highly context dependent. Importantly, it does not question whether managers should care about emotions; rather, the question is how. As it was said somewhere else, the explicit acknowledgment of emotional elements can sometimes add heat but shed no light. Hence, managers should avoid "emotional journey mappings" or training initiatives of frontline personnel in recognition of specific emotions and prefer more valenced-based approaches, because, all else being equal, the greater the discreteness of the emotion scale, the greater is the measurement error.

6.3 LIMITATIONS AND FUTURE RESEARCH

This research has several limitations, opening avenues for future research. First, the three studies were run under the same decision-making context (i.e., life insurance) and using stated preference data from the same online panel. It is recognized that it limits the generalization of findings. Beside the service, other elements of interpersonal context that are likely to affect relational value could be examined, such as dependence on the seller and the utility of the seller to achieve a personal goal.

Another limitation is the fact that the past effort manipulation was a social relationship investment, and other forms of extra effort, such as financial (e.g. discounts) or structural (e.g. infrastructure) were not investigated. It is possible that they affect the social-emotional process differently. Such study would help to explain the differences in effectiveness of these different types of investments found in past researches. For instance, Palmatier, Gopalakrishna, and Houston (2006) found that financial discounts fail to deliver a positive return in the relationship program investments. In light of the conceptual model, this could have happened because financial discounts do not activate the self-other trade-off and are processed as "merely" service attributes, not at the social context level.

Study 3 examined how a negative valence interacts with decision frame. However, it was not investigated how the anticipated social emotions (guilt and pride) would respond to a negative condition, such as the Angel's betrayal. Future research could explore the conceptual model in a balanced design, in which the relational value of the seller is symmetrical (e.g., relational value: negative versus neutral versus positive).

Product attributes were not found to be correlated with social emotions. It is not clear, nevertheless, whether this pattern would be found with a product anthropomorphization (Wan, Chen, & Jin, 2017). Moreover, future research could investigate whether brands, similar to relationships, can elicit social emotions. As more and more companies are positioning their brand as "persons" and showing their human side (Puzakova, Kwak, & Rocereto, 2013), it would be expected that, in some contexts, brands elicit a self-other trade-off.

Finally, future research could relax the assumption that the decision rule in the current model is the random utility maximization and explore alternative decision paradigms, such as the random regret minimization. A promising analytical framework would be the application of the Hess, Stathopoulos and Daly (2012)'s work into the conceptual model.

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APPENDIX A – SCENARIO AND QUESTIONS

Experimental vignette. Imagine that you have decided to purchase life insurance, a kind of investment that provides cash when it's needed most. You call a close friend, who works in the insurance industry, asking for a recommendation of a life insurance agent. After mentioning the key role of an agent on this complex financial product, your friend gives you Angel's contact.

You call Angel, and later meet each other in a coffee shop. Angel provides explanations and advice about policy features. Angel will complete a "Life Insurance Needs Analysis" and ultimately send you a proposal.

Later in the week, you receive the proposal by e-mail: an one-year term life insurance policy (which can be renewed in the end of the period) with an average coverage amount of 10 times individual annual income. After considering the details, you reply to Angel's e-mail accepting the terms.

A couple of months later, you realize that you have forgotten to claim tax deduction on premiums you pay for life insurance against loss of income. You are running out of time and have to complete an extensive form (which you don't fully understand) in a couple of hours or you'll miss the tax deadline. So, you call Angel and explain the situation.

- (**Neutral condition: Study 1 and Study 2**) Angel tells you don't have to worry about it because the Government and Insurer systems are integrated.

- (**Past effort/ Positive condition: Study 1, Study 2, and Study 3**) Angel drives to you and rushes to helps you fill the entire form to submit it just in time.

- (**Negative condition: Study 3**) Angel tells you to meet in the same coffee shop. After a while, Angel shows up but it was too late. Angel had to fulfill the request of another customer.

Almost a year has passed and your one-year policy is close to expiration. You have received a few offers from other insurers, and one specific company (of which another friend is a customer) came to your attention: SEC Company. Their policy is similar to Angel's one, but with a lower price. Angel calls to talk about the policy renewal, and to make sure that any change in your needs will be considered. As on the previous occasion, Angel does a needs assessment and sends you a proposal by e-mail. You reply to Angel saying that you will analyze carefully it and reply as soon as possible.

Study 1: Questions for anticipated emotions. When you were considering your alternatives, how did you feel when you thought about CHANGING to the SEC COMPANY (THE ALTERNATE INSURER)?

- From 1 "no guilt at all/ no remorse at all/ not worried about upsetting someone" to 7 "a lot of guilt/ a lot of remorse/ very worried about upsetting someone".

- From 1 "no pride at all/ no dignity at all/ no esteem at all" to 7 "a lot of pride/ a lot of dignity/ a lot of esteem".

Study 2: Question for anticipated emotional. When you were considering your alternatives, how did you feel when you thought about STAYING with ANGEL (YOUR CURRENT INSURER)?

- From 1 "no guilt at all/ no remorse at all/ not worried about upsetting someone" to 7 "a lot of guilt/ a lot of remorse/ very worried about upsetting someone".

- From 1 "no pride at all/ no dignity at all/ no esteem at all" to 7 "a lot of pride/ a lot of dignity/ a lot of esteem"

APPENDIX B – ADDITIONAL MIMIC MODELS

MIMIC Model with Past efforts, Product attributes, and Individual Income as Covariates (STUDY 1)

	Model 2 (bi-Factor')
Measurement equations:	
Guilt ← G *factor*	4.192***
Remorse ← G *factor*	1.770***
Worry ← G *factor*	1.336***
Dignity ← G *factor*	−1.583***
Esteem ← G *factor*	−1.224***
Pride ← G *factor*	−1.114***
Guilt ← GUILT *factor*	6.159***
Remorse ← GUILT *factor*	3.093***
Worry ← GUILT *factor*	2.836***
Dignity ← PRIDE *factor*	3.576***
Esteem ← PRIDE *factor*	3.479***
Pride ← PRIDE *factor*	3.276***
Structural equations:	
G *factor* ← Past efforts of the current seller	0.886***
G *factor* ← Monthly rate of the current seller	−0.003^{ns}
G *factor* ← Length of contract of the current seller	−0.039^{ns}
G *factor* ← Monthly rate of the alternate seller	0.009^{ns}
G *factor* ← Length of contract of the current seller	−0.009^{ns}
G *factor* ← Low-income	−0.004^{ns}
G *factor* ← Medium-low income	0.202^{ns}
G *factor* ← Medium-high income	0.121^{ns}
Model fit information	
Observations	833
# Free Parameters	56
Loglikelihood	−7285.271
Akaike (AIC)	14682.541
Bayesian (BIC)	14947.143
Adjusted BIC	14769.306

Notes.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

MIMIC Model with Past efforts, Product attributes, and Individual Income as Covariates (STUDY 2)

	Model 5 (bi-Factor')
Measurement equations:	
Guilt ← G *factor*	3.780***
Remorse ← G *factor*	2.614***
Worry ← G *factor*	1.855***
Dignity ← G *factor*	2.840***
Esteem ← G *factor*	2.810***
Pride ← G *factor*	2.681***
Guilt ← GUILT *factor*	5.107***
Remorse ← GUILT *factor*	2.924***
Worry ← GUILT *factor*	2.704***
Dignity ← PRIDE *factor*	2.318***
Esteem ← PRIDE *factor*	2.930***
Pride ← PRIDE *factor*	2.610***
Structural equations:	
G *factor* ← Past efforts of the current seller	0.787***
G *factor* ← Monthly rate of the current seller	-0.007^{ns}
G *factor* ← Length of contract of the current seller	-0.010^{ns}
G *factor* ← Monthly rate of the alternate seller	0.003^{ns}
G *factor* ← Length of contract of the current seller	0.017^{ns}
G *factor* ← Low-income	-0.170^{ns}
G *factor* ← Medium-low income	0.029^{ns}
G *factor* ← Medium-high income	0.124^{ns}
Model fit information	
Observations	956
# Free Parameters	56
Loglikelihood	−8200.796
Akaike (AIC)	16513.591
Bayesian (BIC)	16785.905
Adjusted BIC	16608.052

Notes.
***p-value < .01
**p-value < .05
*p-value < .10
Source: The author – Mplus output (2020).

APPENDIX C – MPLUS INPUT FILE

TITLE: HYBRID CHOICE MODEL (Study 1 and Study 2)

DEFINE:
  if treat == 0 then treat = -0.5;
  if treat == 1 then treat = 0.5;
  ang_price2 = ang_price/income/17;
  sec_price2 = sec_price/income/13;
  ang_time2 = ang_time/2;
  sec_time2 = sec_time/2;
  inc_low = 0;
  if (baseline == 17) then inc_low=1;
  inc_med1 = 0;
  if (baseline == 29) then inc_med1=1;
  inc_med2 = 0;
  if (baseline == 41) then inc_med2=1;

VARIABLE:
NAMES = (omitted);
USEVARIABLES = guilt remorse worry pride dignity esteem
            choice treat ang_price2 sec_price2 ang_time2 sec_time2
            inc_low inc_med1 inc_med2;

CATEGORICAL = guilt remorse worry pride dignity esteem;
NOMINAL = choice;

ANALYSIS:
    LINK = logit;
    ESTIMATOR = ML;
    ALGORITHM = INTEGRATION;
    INTEGRATION = GAUSSHERMITE; !numerical integration

MODEL:
    !measurement model
    G BY guilt* remorse worry pride dignity esteem;
    GUI3 BY guilt* remorse worry;
    PRI3 BY pride* dignity esteem;
    G@1 GUI3@1 PRI3@1; !FACTOR VAR fixed at 1
    G WITH GUI3-PRI3@0; !orthogonal factors
    GUI3 WITH PRI3@0;   !orthogonal factors

    !treatment as covariate on G (bifactor with a covariate in all LVs is not identified)
    !MIMIC Model
    G on treat (a1);
    guilt-esteem ON treat@0;

```
    !paths/ regressions
    !Define choice model
    [choice#1] (b0);
    choice#1 ON ang_price2;
    choice#1 ON sec_ price2;
    choice#1 ON ang_time2 (p1);
    choice#1 ON sec_time2 (p2);
    choice#1 ON inc_low inc_med1 inc_med2;
    choice#1 ON treat (x);
    choice#1 ON G (b1);

MODEL CONSTRAINT:
    p1 = -p2;

NEW(dir ind ORind tot);
    dir = x;
    ind = a1*b1;   !Indirect effect of X on Y via M
    ORind = exp(a1*b1); !Odds ratio wrto indirect effect of X on Y via M
    tot = x + (a1*b1);

 OUTPUT:
    TECH1 SAMPSTAT STANDARDIZED;
```