Self-control today, indulgence tomorrow? How judgment bias and temporal distance influence self-control decisions

Wagner Junior Ladeira (UNISINOS – Universidade do Vale do Rio dos Sinos, São Leopoldo, Brazil)

Fernando Oliveira Santini (UNISINOS – Universidade do Vale do Rio dos Sinos, São Leopoldo, Brazil)

Diego Costa Pinto (NOVA Information Management School, Universidade Nova de Lisboa, Lisbon, Portugal)

Clécio Falcao Araujo (Business School, Pontificia Universidade Catolica do Rio Grande do Sul, Porto Alegre, Brazil)

Fernando A. Fleury (Universidade de Sao Paulo, São Paulo, Brazil)

This is the author accepted manuscript version of the article published by EMERALD as:

Ladeira, W. J., Santini, F. O., Pinto, D. C., Araujo, C. F., & Fleury, F. A. (2018). Self-control today, indulgence tomorrow? How judgment bias and temporal distance influence self-control decisions. Journal of Consumer Marketing, 35(5), 480-490. https://doi.org/10.1108/JCM-11-2016-1993

Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control Decisions

Abstract

Purpose: This research analyzes how judgment bias (optimism *vs.* pessimism) and temporal distance influence self-control decisions. This research also analyzes the mediating role of perceived control on judgment bias and temporal distance.

Design/methodology/approach: Three studies (1 laboratory and 2 online experiments) analyze how judgment bias and temporal distance influence self-control decisions on consumers' willingness to pay.

Findings: The findings uncover an important boundary condition of temporal distance on self-control decisions. In contrast to previous research, the findings indicate that individuals exposed to optimism (*vs.* pessimism) bias display more self-control in the future and make choices that are more indulgent in the present. The findings also reveal that perceived control mediates the effects of judgment bias and temporal distance.

Practical implications: The findings help managers to adapt short and long-term marketing efforts, based on consumers' momentary judgment biases and on their chronic judgment bias orientation.

Originality/value: This research contributes to the literature on self-control and temporal distance, showing that judgment bias reverses previous research findings on self-control decisions.

Keywords: self-control, judgment bias, temporal distance, optimism and pessimism bias, construal level

INTRODUCTION

East Rutherford, NJ, 2014: "The Seattle Seahawks have won their first Super Bowl title, crushing the favored Denver Broncos 43-8" (NFL.com, 2014).

Rio de Janeiro, Brazil on 8 July 2014: "Brazil v Germany: the biggest humiliation in the history of Brazilian football. A 7-1 thrashing in the World Cup signals the night the music died" (The Telegraph, 2014).

After the Super Bowl or FIFA World Cup, supporters of one team experience positive outcomes, while supporters of the other team experience negative outcomes. Because of judgment biases, supporters may inflate or deflate their expectations of satisfaction from subsequent purchasing decisions through optimistic or pessimistic lenses. These biases in judgment can lead to optimism bias (i.e., a tendency to expect positive outcomes) or a pessimism bias (i.e., a tendency to expect negative outcomes). Therefore, consumers may increase or reduce their consumption, employing self-control mechanisms in their actions (Goodman and Malkoc, 2012).

Research supports the notion that self-control and indulgence depend on temporal distance (Laran, 2010). Past studies show that self-control information persuades individuals to exercise self-control in the present but tends to orient them toward indulgence in the future (Laran and Janiszewski, 2009). Although previous research suggests that people tend to perceive the future more clearly than the present (Busseri, Choma, and Sadava, 2009), this behavior is subject to change. For example, in the context of sports, expectations of positive results are normally greater than expectations of defeat for team fans. In this case, the immediate present interferes in the decisions about the future (Hirt, Zillmann, Erickson, and Kennedy, 1992).

The current work proposes that judgment biases and temporal distance influence self-control decisions. In three studies, we analyze how judgment bias and temporal distance influence self-control decisions on consumers' willingness to pay. In

addition, we examine the mediating role of perceived control and alternative mediators (mood, self-confidence, and self-esteem) on judgment bias and temporal distance. Theoretically, this research contributes to the literature on self-control and temporal distance (Shah, James, Kruglanski, and Arie, 2003; Laran, 2010; Goodman and Malkoc 2012), showing that judgment bias can change how consumers focus on self-control decisions in the present and in the future. In managerial terms, the findings may help companies to adopt short-term and long-term marketing efforts, based on the momentary judgments of consumers and on consumers' chronic judgment bias orientation.

JUDGMENT BIAS, TEMPORAL DISTANCE, AND SELF-CONTROL DECISIONS

Extensive research on decision-making has studied the role of optimistic and pessimistic judgment biases on consumption (Mueller, 1957, Tobin, 1959, Katona, 1975). The optimistic (vs. pessimistic) judgment bias is a trait that expresses the tendency of individuals to think that they are less likely than others to experience negative events and are more likely to experience positive events (Helweg-Larsen and Shepperd, 2001). Marketing studies have analyzed the effects of optimistic and pessimistic biases on consumer intentions and attitudes (Nguyen and Claus, 2013), spending and saving behavior (Katona, 1974), consumer satisfaction (Westbrook, 1980), in predicting future behavior (Yang and Urminsky, 2015).

Recent studies in psychology and marketing find that consumers seek a balance between the present and the future in self-control decisions (Laran and Janiszewski, 2009; Laran, 2010; Goodman and Malkoc 2012). Self-control is a process by which an initial response is reconsidered, allowing for a different response (Vohs, Kathleen, Baumeister, Roy, and Tice, 2008). Self-control enables people to control their consumption impulses, within limits and parameters acceptable to the society

(Shah, James, Kruglanski, and Arie, 2003; Laran, 2010; White, Rhiannon, and Dahl, 2011).

For Construal Level Theory, the temporal distance can explain differences in purchase patterns for the present *versus* future (Trope, Liberman, and Wakslak, 2007; Eyal, Liberman, Trope, and Walther, 2004). This occurs because present decisions are richer in detail (concrete) than future ones (abstract) (Liberman and Trope, 1998; Freitas, Gollwitzer, and Trope, 2004; Laran, 2010). For example, imagine a fan who will buy a ticket to watch a team today or in six months. For the present situation (today) many details are involved (e.g. which players are likely to play, the prices of tickets), whereas for the future situation (six months from now) it will not be possible to know the specific details (e.g. who will be playing).

Consumers tend to use judgment biases to project their future consumption behavior (Tanner and Carlson, 2009). One key concept affecting judgment bias is the relationship of optimism/pessimism about future events (Lench and Ditto, 2008). Optimistic (vs. pessimistic) bias predisposes consumers to anticipate the good things that can happen. We argue that consumers induced to exhibit self-control are more likely to be persuaded in the future but oriented toward indulgence in the present.

Specifically, we propose that judgment biases and temporal distance influence self-control decisions (hypothesis 1):

> **H1.** *Optimistic (vs. pessimistic) bias will result in greater self-control in the future and greater indulgence in the present.*

THE MEDIATION PROCESS OF PERCEIVED CONTROL ON JUDGMENT BIAS

Individuals decisions have generated numerous explanations from the judgment bias perspective. Judgment bias serves to protect and strengthen the self, producing

thoughts that increase self-esteem and reduce perceived risk (Taylor and Armor, 1996). The judgments of optimism and pessimism tend to be enhanced when individuals make comparisons (Menon et al., 2009). One factor that influences biases in judgment is perceived control (Klein and Helweg-Larsen, 2002). The perception of control can then directly modify biases in comparative judgments (Lin et al., 2004). Situations with a greater perceived control lead to optimistic judgments (Kruger, 1999), whereas lower perceived control situations lead to pessimistic judgments (Menon et al., 2009).

Previous studies have demonstrated that people's perception of control and psychological distance can influence judgment bias (Menon et al., 2009). We argue that optimistic and pessimistic biases and temporal distance tend to influence perceived control, which in turn, will influence consumers' self-control decisions. More specifically, we hypothesize that:

H2. *Perceived control mediates the effect of optimistic (vs. pessimistic) bias and temporal distance on self-control decisions.*

OVERVIEW OF STUDIES

Three studies (1 laboratory and 2 online experiments) analyze how judgment bias and temporal distance influence self-control decisions on consumers' willingness to pay. Judgment bias was made salient by scenarios (Study 1), chronically assessed in terms of participants' orientation (Study 2) or measured using real performance of soccer teams during a national championship (Study 3). Study 1 analyzes the effect of optimistic (vs. pessimistic) bias on participants' willingness to spend for sporting goods. Study 2 examines the mediation process of perceived control in which participants' judgment bias orientation influence self-control decisions in the present and in the

future. Study 3 shows that participants' judgment bias towards soccer teams in a real competition situation also influence self-control decisions.

STUDY 1: The Effects of Optimistic Scenarios on the Purchase of Sport Goods

Study 1 aims to examine how judgment bias (pessimism vs. optimism) and temporal distance may influence access to self-control information and thereby influence the purchasing of sporting goods. In Study 1, we aim to demonstrate that judgments made under bias may change the impact of self-control on the purchase of sporting goods from their team. Study 1 includes information regarding how optimistic scenario (e.g. hiring a talented player) *versus* pessimistic scenario (e.g. hiring a poor player) influence self-control decisions, asking respondents to choose whether to buy sporting goods in the present and future. We predicted that when exposed to the optimistic scenario, the priming information of self-control will be inhibited. However, when exposed to the pessimistic scenario, the self-control priming information should be maintained or gain potential.

Method

Participants and Procedure. Two hundred and eight participants, aged 17 to 54 years, from a major Brazilian University were invited to participate in a lab experiment (85.6% male, M_{age} = 37.165, SD = 9.22). The design of the experiment was 2 (temporal distance: present *versus* future) x 2 (Judgment: optimism *versus* pessimism bias) x 2 (priming effect: self-control *versus* neutral). The priming effect was manipulated between-subjects (i.e. participants received self-control or neutral information), while the temporal distance factor was manipulated within-subjects (i.e. each participant made a choice for the present and the future). Further studies (2 and 3) were also conducted to reduce the within-subjects design limitation. The questionnaire was

conducted in Portuguese, and the scales translated using the procedure of back-translation (Zikmund and Babin et al., 2008).

Procedure and stimuli. The procedure of study 1 consisted of three tasks. The first task involved activation of the cognitive process through a set of words randomly presented, the second task involved the manipulation of optimism biases (hiring a good player) and pessimism biases (hiring a poor player), and the third task involved a consumption choice for the present vs. the future. Participants entered the lab and completed the study on a computer.

The first task was intended to activate the priming effect via a set of random words and phrases (Srull and Wier, 1979). Participants were randomly assigned to one of two conditions: self-control and neutral. In the first condition, participants were presented with a random set of words and then asked to select the phrase that best represented the words. Forty words were grouped into four different blocks used to generate the self-control priming. Each block contained ten words that were randomly presented. Eight of these ten words activated self-control, using expressions such as *save, uncertainty, risk, join, restriction*, among others. The other two expressions were familiar words that, at first, had no meaning, such as *water, car, night, dog, life,* among others. After observing the set of words, the participant had to choose the one that best represented the ten words from four options, such as "*Tomorrow is uncertain, so we need to save*." The search for words and the correct choice of phrases aimed to turn the information into a priming effect of self-control. In the neutral condition, no attempt was made to activate any specific type of information. The same procedure was adopted as in the first condition. The sentences formed in this condition had no specific meaning for the study (neutral condition). Phrases such as "*The horse maintains its health by running and jumping*" and "*The game was stressful, so I was nervous*" brought the most coherent choices for the ten words presented. In both conditions, respondents were given free time to complete the sentences.

The second task was associated with the judgment of optimistic or pessimistic bias. The optimism/pessimism bias was manipulated using a scenario. We have adapted scenarios from the traditional view of judgment bias (Scheier et al., 1994). However, instead of traditional scale items (e.g. “I'm always optimistic about my future”, “Overall, I expect more good things to happen to me than bad”), participants read a scenario about their favorite team. Specifically, in the optimistic bias, participants were stimulated to answer who was the best player in the championship and were told that: "Your team has just hired this player". In contrast, participants in the pessimistic scenario received instructions that their team hired the worst player of the championship.

After the optimism/pessimism manipulation, we thanked the participants and asked them to begin a new task. The following instructions were given to the participants: "*Imagine that you only have* R$ 1,000 (US$ 333.33) *to spend during the month, counting all costs”.* The respondent should then choose two products to buy from their favorite team, one to use today in their team's game and one that they will only be able to buy in six months. It was indicated to the respondents that the products were linked to the team they cheered for. In total, six products with different prices were listed. The original values were in Brazilian Reais (BRL). The values were converted into dollars to facilitate the analysis. Products were not described, and only the prices were linked to each: R$ 50 (US$ 16.66); US$ R$ 130 (US$ 43.66); R$ 160 (US$ 53.66); R$ 200 (US$ 66.66); R$ 230 (US$ 76.66) and R$ 260 (US$ 86.66).

After observing the prices of the products, respondents were asked to choose a product that represented the present (to be used today at their team's game) and another that represented the future (to be purchased in six months). Before choosing products, respondents received a recommendation not to take into consideration the current situation of their team. The participants were then asked to indicate, on a scale of 1 to 100, their level of passion for their team. This measure was used to check the manipulation. The mean level of passion was 56.43% (SD = 23.58). The summary

statistics show that the participants were not extremely passionate about their teams, which could skew the data collected.

Pretest. Forty participants from the same sample evaluated the type of product that should be used. The suggestion was to designate parts of team uniforms as choices for the present and future. These parts included: *main team jersey, second jersey, workout jersey, goalkeeper jersey, cold outfit*, among others. However, most participants first chose the main uniform of the team as a sign of identification. As this would prevent a more parsimonious choice of the respondent, it was decided not to identify the product but only the price. The product was named “sports article”. When asked about spending on a product associated with the club they cheered for, participants agreed that values between R$ 50 (US$ 16.66) and R$ 260 (US$ 86.66) would be acceptable to a person who earned between R$ 1,000 (US$ 333.33) and R$ 2,000 (US$ 666.66) per month.

The optimism bias participants were encouraged to indicate who they believed was the best player currently playing. In the pessimistic scenario, participants were encouraged to indicate who they believed was the worst player currently playing. Directly afterward, they were given the following stimulus: “*Your team has just hired that player*”. After these statements were made in both scenarios, two questions were asked to assess whether this news would have enabled positive feelings regarding their judgments. The first question was whether their team had made a good choice. The response options were dichotomous (yes *vs*. no). The second question consisted of six statements, where the first three exhibited pessimism bias (*fans of other teams would make fun of the participant’s team; the participant´s team would make fools of themselves when announcing the hiring, and the fans of the participant’s team would revolt against the president of the team*), and the remaining three exhibited optimism bias (*fans of other teams would be jealous of the participant’s team; the participants would be respected if this player were hired; and the fans of the participant’s team would support the decision of the president to hire this player*).

Finally, participants were interrogated to verify the procedures for debriefing (Bargh and Chartrand, 2000; Fitzsimons and Shiv, 2001). Directly afterward, participants were informed of the real purpose of the experiment. They were then thanked and dismissed.

Results and Discussion

Interpretation of the priming manipulation. Through analysis of the first data set, evidence of manipulation in the first task of the experiment can be observed. With respect to the above time manipulation, we did not find a significant difference between the averages in the self-control and neutral conditions ($F_{(1,208)} = 0.154$; *ns*). Participants in the self-control condition were exposed to a longer period (M = 2 minutes and 02 seconds) than those in the neutral scenario (M = 1 minute and 58 seconds).

Judgment bias. The scenarios characterized by optimistic and pessimistic bias also elicited differences among participants. Under optimistic bias, responses indicated a good choice, while the opposite was true under pessimistic bias. With respect to which players participants regarded as potentially poor players, 84.3% of respondents named players on rival teams.

Choices made by participants. Figure 1 shows the averages of the choices made by the participants in the present and the future, in both the neutral and self-control scenarios, with differentiation between the pessimistic and optimistic biases. With respect to the pessimistic bias scenario, the ANOVA indicated no significant differences between purchase decisions in the present ($F_{(1,97)} = 0.878$; *ns*) and future ($F_{(1,97)} = 1.119$; *ns*). That is, participants indicated similar willingness to pay for products in the future ($M_{neutral} = 63.53$; $M_{self\text{-}control} = 59.33$) and the present ($M_{neutral} = 31.93$; $M_{self\text{-}control} = 35.36$). With respect to the optimistic bias scenario, the ANOVA showed significant differences between purchase decisions in the present ($F_{(1,111)} = 5.263$; $p < 0.05$) and non-significant differences between purchase decisions in the

future ($F_{(1,111)}$= 0.012; p = 0.914). In particular, as expected, participants indicated lower willingness to pay for products in the present, when received self-control information ($M_{neutral}$ = 64.13; $M_{self\text{-}control}$ = 54.06). However, in the future participants reported similar willingness to pay ($M_{neutral}$ = 44.36; $M_{self\text{-}control}$ = 43.93).

Pessimistic bias. The *t-test* indicates a significant difference between priming effects. In the self-control scenario, present choices averaged M = US$ 35.36, and future choices averaged M = US$ 59.33, with a *t-statistic* of ($t_{(1)}$ = -6,265; p<0,01). In the self-control scenario, 84.14% of participants chose to make a more indulgent purchase in the future. For the neutral group, there was a significant difference ($t_{(1)}$ = -8.645; p<0,01) between present choices (M = US$ 31.93) and future choices (M = US$ 63.56). In the neutral scenario, 72.23% of participants chose to make a more indulgent purchase in the future.

Optimistic bias. The *t-test* indicates a difference between priming effects. In the self-control condition, there is a significant difference ($t_{(1)}$ = 2.237; p < 0.05) between present choices (M = US$ 54.06) and future choices (M = US$ 43.93). People purchasing for today's game (present) will make more indulgent choices when purchasing six months from now (future) when they will tend to exercise more control in their purchases of sporting goods. Regarding self-control, 67.24% of participants chose to make a more indulgent purchase in the present. Regarding the neutral group, there are significant differences ($t_{(1)}$ = 4.998; p < 0.01) between present choices (M = US$ 64.13) and future choices (M = US$ 44.36). Purchases in the present are more indulgent, while purchases for the future exhibit greater self-control, which confirms H_1. In the neutral situation, 86.11% of participants chose to make a more indulgent purchase in the present.

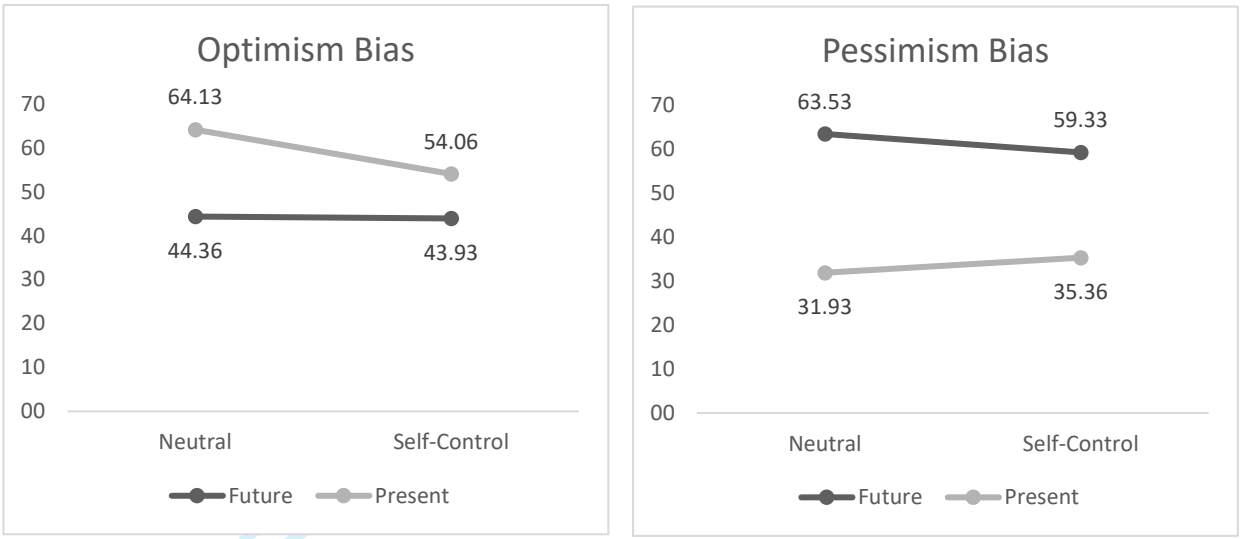


Figure 1: Results of Study 1 – Willingness to Spend (in US$)

The findings suggest that the scenario involving optimistic judgments reverses the results of previous research (Laran, 2010). The results of study 1 show that optimistic bias among supporters can lead to more indulgent choices and preferences in the present and greater self-control in the future. Given an optimistic bias, one will exercise greater self-control in the future, supporting H_1. Furthermore, it was found that a pessimistic bias among supporters can lead to choices and preferences that reflect greater self-control in the present and more indulgent behavior in the future.

STUDY 2: The Effects of Chronic Optimism Mediated by Perceived Control

Study 2 aims to demonstrate that judgment bias (pessimism *versus* optimism bias) may influence access to self-control information and thereby influence the total amount of sports goods purchase according to temporal distance. Study 2 extends the previous study in three ways. First, study 2 measures participants' chronic optimism (using LOT-R Scale – Scheier et al., 1994), reducing limitation of the judgment bias scenarios used in study 1. Second, this study activates positive feelings under the self-

control and neutral conditions, asking respondents to choose whether to buy sporting goods in the present and future (between subjects design). Third, in study 2, we try to demonstrate that judgments made under chronic optimism (vs pessimism) may change the impact of perceived control on the purchase of sports goods (mediation process). We predict that when participants have chronic optimism, will results in greater perceived control in the future (vs. present). However, when participants have chronic pessimism, the self-control priming information should not influence participants' perceived control. In this study, the dependent variable was the total amount of cost of the products participants chose to buy. We have asked basketball supporters to simulate a shopping trip at the NBA Store website. We have also controlled for participants' involvement in basketball, and average spending for sport-related merchandise during the NBA season.

Method

Participants and Procedure. One hundred and third nine participants, aged 18 to 72 years, from Amazon Mturk were invited to participate in an online experiment (62.6% female, M_{age} = 39.23, SD = 12.39). The design of the experiment was 2 (judgment bias: optimism *versus* pessimism bias) x 2 (priming effect: self-control *versus* neutral) x 2 (temporal distance: present *versus* future), between subjects in all conditions. The between-subjects design in study 2 aimed to reduce the within-subjects limitation in Study 1.

Procedure and stimuli. The participants were told they would participate in three independent tasks. The first task involved the measurement of participants' chronic optimism (vs. pessimism). We have employed the Life Orientation Test-Revised (LOT-R) from Scheier et al. (1994). The 10-item of LOT-R measure of optimism versus pessimism. Of the 10 items, 3 items measure optimism, 3 items measure pessimism, and 4 items serve as fillers. Respondents rated each item on a 7-point scale (1 =

strongly disagree to 7 = strongly agree). In our study, we have created a composite score of participants' chronic optimism using the three items measuring optimism and reversing the scores of the three pessimism items. Higher scores indicate optimism and lower scores indicate pessimism (*M* = 4.67; *+1SD* = 6.06; *-1SD* = 3.29). The final chronic optimism score based on the LOT-R scale was reliable in our sample (α = .911, 6 items).

To analyze the mediation process, we have used the following scales: mood (4 items), self-esteem (3 items), self-confidence (3 items), perceived control (3 items). Is important to note that perceived control is usually treated as a chronic trait, however, we believe that judgment bias may influence participants perceived control temporarily. Our theoretical account is based on past research that shows the perception of control can then directly modify biases in comparative judgments (Lin et al., 2004; Kruger, 1999; Menon et al., 2009). Participants rated each item on a 7-point scale (1 = strongly disagree to 7 = strongly agree). Table 1 provides the details of the mediation scales used in Study 2:

Table 1. Mediation Scales in Study 2

Scale	Items	Source
Mood Scale (4 items, α = .830)	Currently, I am in a good mood.	Mood Short Form - MSF - Peterson and Sauber (1983)
	As I answer these questions I feel cheerful.	
	For some reason, I am not very comfortable right now.	
	At this moment, I feel edgy or irritable.	
Self-Esteem (3 items, α = .902)	I have high self-esteem.	Rosenberg Self-Esteem Scale (1989)
	In general, I am satisfied with myself.	
	I have no doubt about my social competence.	
Self-Confidence (3 items, α = .795)	I generally look at the brighter side of life.	Self-Confidence factor – Tafarodi and Swann (1995)
	I am confident that products are safe.	
	I am optimistic about the quality of products.	
Perceived Control (3 items, α = .681)	To a great extent, my life is controlled by accidental happenings.	Levenson (1973)
	I feel like what happens in my life is mostly determined by powerful people.	
	How many friends I have depends on how nice person I am.	

The second task was intended to activate the self-control priming via a set of random words and phrases (Srull and Wier, 1979). Participants were randomly assigned to one of two conditions: self-control and neutral. Both priming conditions followed the exact same procedure as in Study 1.

After the self-control priming activation, we thanked the participants and asked them to begin the third task. The following instructions were given to the participants: "*On the next page, you will be asked to simulate a shopping trip at the NBA Store website. Please click on the product (or products) that you want to buy. You can buy as much as products as you want."* Then, on the next page, participants entered an online shopping simulation based on the original NBA website (see Figure 2 for details): "*Welcome to the NBA Store website. Please click on the products that you wish to buy. * You can choose as many products as you want".*

We have used an average of prices depicted in the NBA Store by June 2017 and used the same pricing strategy than the official website (i.e. prices ended with $.99 values). In total, eight products with different prices were listed. To avoid problems with participants' team preferences, we have used icons to represent the main categories on the website: jerseys, T-shirts, jackets, bags, balls, hats, shorts, and socks. We have also given participants the option to not buy anything ("not buying"). For that question, we have used hot spot question on Qualtrics, in which participants clicked on the products: "*Instructions: One click: means you would buy the product (the product turns green). No click or two clicks: means you would not buy the product at all*". The dependent variable was the total amount of cost of the products participants chose to buy.

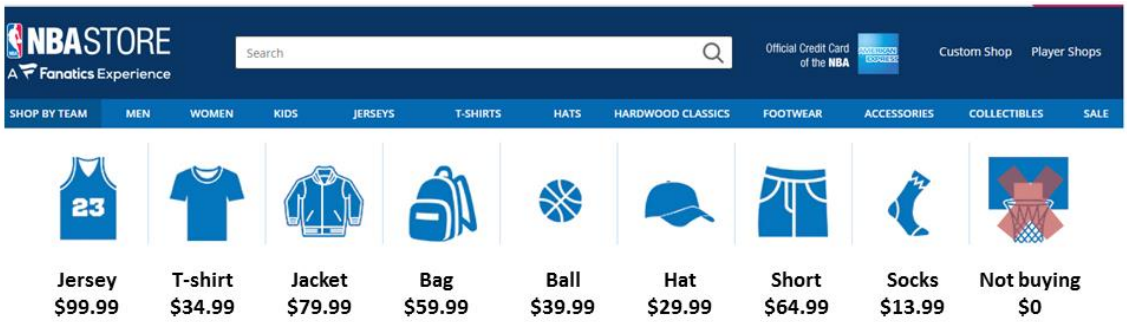


Figure 2: NBA Store simulation in Study 2.

The respondent should then choose products to buy (or not) from their favorite team. To activate temporal distance (future vs present), participants were randomly assigned between-subjects in one of the two conditions: "*Please click on the products that you wish to buy NOW, today, during this research*" or "*Please click on the products that you wish to buy in the FUTURE, six months from today*".

After that, we have also controlled for participants' involvement in basketball, and average spending for sport-related merchandise during the NBA season. We have measured participants involvement to the sport (basketball), in a differential semantic scale (α = .916; 6 items): I hate basketball : I love basketball; Not a fan of basketball : I am a fan of basketball; I don't watch basketball matches: I usually watch basketball matches; I do not go to basketball arena: I often go to basketball arena; I do not buy basketball merchandising: I often buy basketball merchandising; I know nothing about basketball: I know everything about basketball. We have also asked for participants' favorite basketball team and their average spending in sport-related merchandising during the NBA season. These variables were controlled for during the analysis of study 2 and did not influence the results. Finally, participants were interrogated to verify the procedures for debriefing (Bargh and Chartrand, 2000; Fitzsimons and Shiv, 2001). They were then thanked and dismissed.

Results and Discussion

Choices made by participants. The three-way ANOVA indicate that there is a significant interaction between chronic optimism, self-control, and temporal distance ($F_{(1,130)}$ = 5.74; p < 0.05) (see Figure 3).

Optimistic bias. The ANOVA indicates that in the self-control condition, participants had lower spending for future choices (M = US$ 72.06) when compared to the neutral condition (no self-control information) (M = US$ 156.94) ($F_{(1,130)}$ = 7.20; p < 0.01). People purchasing for today's game (present) will make more indulgent choices when purchasing six months from now (future), when they will tend to exercise more control in their purchases of sporting goods, providing further support for H_1. Regarding the neutral group, there were no significant differences between present choices ($M_{self\text{-}control}$ = US$ 85.27) ($M_{neutral}$ = US$ 56.21) ($F_{(1,130)}$ = .64; *ns*).

Pessimistic bias. For the pessimistic bias, the ANOVA do not indicate a difference between priming effects. In the self-control condition, participants similar spending for future choices (M = US$ 110.88) when compared to the neutral condition (no self-control information) (M = US$ 84.02) ($F_{(1,130)}$ =.55; p < *ns*). Regarding the neutral group, there were no significant differences between present choices ($M_{self\text{-}control}$ = US$ 57.22) ($M_{neutral}$ = US$ 84.93) ($F_{(1,130)}$ = .58; *ns*).

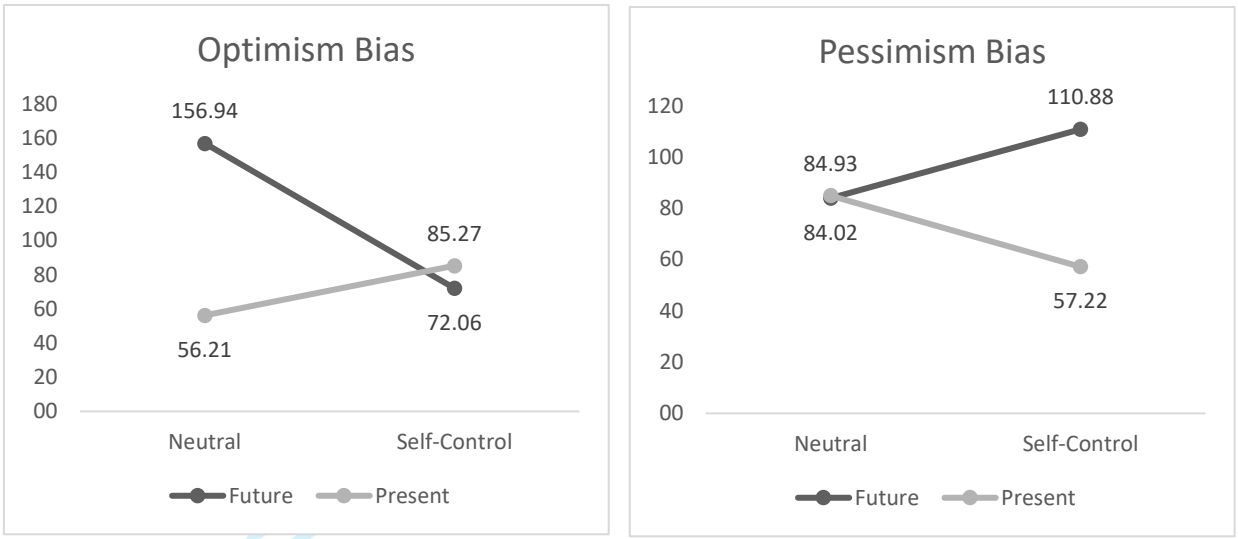


Figure 3: Results of Study 2 – Willingness to Spend (in US$)

Mediation Analysis. This section analyzes the mediation process of self-control and temporal distance, moderated by judgment bias (Model 10 - Hayes, 2013). In this study, we have measured several potential mediators (perceived control, mood, self-esteem, and self-confidence) to test the main process and alternative paths. The analyses use the bootstrap procedure suggested by Hayes (2013) and Zhao *et al.* (2010). All the analysis presented in this section use the Hayes (2013) macro for SPSS® and 5,000 bootstrapped samples. In the bootstrapping procedure, the indirect effect (axb) is significant when the confidence interval excludes zero (Zhao *et al.*, 2010). The models assigned the four variables as the mediator (perceived control, mood, self-esteem, and self-confidence), self-control as the independent variable, judgment bias as moderator, total amount of purchase as the dependent variable, and involvement in the sport as the covariate. Involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 23.55; 95% CI: 12.30 to 34.80).

Results support the mediation of perceived control, but not for the alternative mediators (mood, self-esteem, and self-confidence). The bootstrap analysis shows that

the indirect effect of self-control and judgment bias through perceived control was significant for consumers with chronic optimism and in future decisions (indirect effect (a x b) = 12.30; 95% CI: .68 to 34.09), supporting H_2. The positive valence of the mediation effects suggests that self-control is driving the effects. That is, consumers in self-control condition seem to have more perceived control of the situation, and are more optimistic about future decisions, increasing the spending on sports merchandise related to their team. The findings also indicate that perceived control does not mediate total amount of spending in the team when consumers are chronically pessimistic (indirect effect (a x b) = -3.03 and 3.29, *ns*) or when they are chronically optimistic but make decisions for the present (indirect effect (a x b) = 12.12, *ns*). Table 2 presents the mediation results for perceived control. Results for alternative mediators (mood, self-confidence, and self-esteem) did not reach significance (for details, please see the appendix).

Table 2. Mediation of Perceived Control

Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	**Pessimism**	-3.03	-24.34	8.17	*ns*
	Optimism	12.30	.68	34.09	***
Present	**Pessimism**	3.29	-24.08	10.33	*ns*
	Optimism	12.12	-.26	40.11	*ns*

***** p <.05**

STUDY 3: The Effects of Team Optimism in a Real Soccer Season

Study 3 provides further evidence for our hypotheses, using a different form of judgment bias that could influence access to self-control information. This study extends the previous studies in two ways. First, we have measured participants' optimism and pessimism towards their team (adapted from LOT-R Scale – Scheier et al., 1994). The optimistic or pessimistic bias was determined by whether the soccer

team had a prosperous or a bad season. We have used real data from Brazilian Soccer League A (see the method for details). Thus, the study can verify that the purchase intention was based on an optimistic or a pessimistic bias that is based on real team performance, during a national championship. Second, study 3 was also used to increase the external validity of the results, using an online sample from a major national sports website (ESPN – Entertainment and Sports Programming Network). ESPN is the leading provider of multi-platform sports content in the Brazilian media.

Method

Participants and Procedure. One hundred and third-six participants, aged 15 to 69 years, located in more than 10 states from a major Brazilian sports website (ESPN.com.br) were invited to participate in an online experiment (61.7% male, M_{age} = 35.59, SD = 12.79). In exchange for participation, subjects participated in a raffle of a soccer jersey of their favorite team. The design of the experiment was 2 (Judgment bias: optimism *versus* pessimistic bias) x 2 (priming effect: self-control *vs*. neutral) x 2 (temporal distance: present *versus* future). As in Study 2, the priming effect, judgment biases, and temporal distance were manipulated between-subject. The questionnaire was conducted in Portuguese, and the scales translated using the procedure of back-translation (Zikmund and Babin et al., 2008).

Procedure and stimuli. The procedures of study 3 were implemented similarly to those employed for the same three tasks in study 2. There were differences only in the second task, which involved the measurement of judgment bias towards their soccer team (adapted from Scheier et al., 1994), enabling optimistic (vs. pessimistic) bias for a prosperous (vs. bad) year. Participants informed their favorite soccer team and after that, we have measured participants' optimism and pessimism towards their team (adapted from LOT-R Scale – Scheier et al., 1994). The optimistic or pessimistic bias was determined by whether the soccer team had a prosperous or a bad season. Exemplars of team optimism were found among supporters of *Corinthians* and *Grêmio*,

while exemplars of team pessimism were found among supporters of *São Paulo* e *EC Vitória*. We have used real data from Brazilian Soccer League A (see Appendix). Top 10 teams were considered in a good season (team optimism) and teams in the bottom 10 places were considered to have a bad season (team pessimism). Results from one-way ANOVA suggest that participants that support teams in a good season had higher levels of optimism towards their team (n = 76, M = 5.44), than participants with bad season teams (n = 60, M = 4.87) ($F_{(1,134)}$ = 11.25; p <0.01). More importantly, the results of participants' optimism or pessimism towards their team were not influenced by their chronic level of judgment bias (LOT-R): chronic optimism M = 5.04; chronic pessimism M = 5.03 ($F_{(1,134)}$ = .003; *ns*).

After the task of priming activation, we thanked the participants and asked them to begin the shopping task. We have used an average of prices depicted in the major Brazilian online store by June 2017 and used the same pricing strategy (i.e. prices ended with R$ .90 values). In total, eight products with different prices were listed. To avoid problems with participants' team preferences, we have used icons to represent the main categories on the website: official jerseys, T-shirts, jackets, bags, balls, hats, shorts, and socks. As in Study 2, we have also given participants the option to not buy anything ("not buying"). The dependent variable was the total amount of cost of the products participants chose to buy (values in Brazilian Reais – BRL).

The respondent should then choose products to buy (or not) from their favorite team. To activate temporal distance (future vs present), participants were randomly assigned between-subjects in one of the two conditions: "*Please click on the products that you wish to buy NOW, today, during this research*" or "*Please click on the products that you wish to buy in the FUTURE, six months from today*".

After that, we have also controlled for participants' involvement in soccer, and average spending for sport-related merchandise during the Brazilian soccer season. Similarly to Study 2, we have measured participants' involvement in the sport (soccer), in a differential semantic scale (α = .927; 6 items). We have also asked for participants'

favorite soccer team and their average spending in sport-related merchandising during the Brazilian soccer season. These variables were controlled for during the analysis and did not influence the results. Finally, participants were interrogated to verify the procedures for debriefing (Bargh and Chartrand, 2000; Fitzsimons and Shiv, 2001). They were then thanked and dismissed.

Results and Discussion

Participants' Chronic Optimism. The three-way ANOVA indicate that there is a significant interaction between chronic optimism, self-control, and temporal distance ($F_{(1,128)}$ = 5.51; p < 0.05). To provide a better understanding of the results, we ran a bootstrap analysis (model 3 – Hayes, 2013). The analyses use the bootstrap procedure suggested by Hayes (2013) and Zhao *et al.* (2010). The model assigned self-control as the independent variable, chronic judgment bias as moderator, total amount of purchase as the dependent variable, and involvement in the sport as the covariate. Involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 19.30; 95% CI: 10.62 to 27.99).

The bootstrap analysis shows that the indirect effect self-control and judgment bias was significant for consumers with chronic optimism and in future decisions (indirect effect (axb) = 89.39; 95% CI: -1.55 to 180.33, p = .0054), providing further support to H1. The positive valence of the indirect effects suggests that consumers in self-control condition and are more optimistic about future decisions, tend to increase the spending on sports merchandise related to their team. The findings also indicate that self-control does not influence the total amount of spending in the team when consumers are chronically pessimistic (indirect effect (a x b) = 14.01, *ns*).

Team Optimism. In this section, we analyze the results for team optimism. We ran a bootstrap analysis (model 3 – Hayes, 2013), using the procedure suggested by Hayes (2013) and Zhao *et al.* (2010). The model is similar than previous analysis with

the difference of using team judgment bias as moderator (instead of chronic optimism/pessimism). Again, involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 23.73; 95% CI: 12.35 to 35.11).

The bootstrap analysis shows that the indirect effect self-control and judgment bias was significant for consumers when the team season is good (i.e. team optimism) (indirect effect (axb) = 146.74; 95% CI: 41.49 to 251.98, p <.01), providing further support to H1. The positive valence of the indirect effects suggests that consumers in self-control condition and are more optimistic about their teams, tend to increase the spending on sports merchandise. The findings also indicate that self-control does not influence the total amount of spending in the team when consumers are chronically pessimistic about their teams (i.e. the team is in a bad season) (indirect effect (a x b) = -18.23, *ns*).

GENERAL DISCUSSION

This article investigated how optimistic and pessimistic bias and temporal distance can influence consumers' willingness to spend. Three studies conducted in the context of sports goods uncover an important boundary condition of temporal distance on self-control decisions. Conversely to previous research, the results show that optimistic (vs. pessimistic) bias can lead to more indulgent choices in the present and to greater self-control in the future. The findings also reveal that perceived control mediates the effects of judgment bias and temporal distance. When participants have chronic optimism (vs. pessimism), it will result in greater perceived control in the future (vs. present), which in turn will influence self-control decisions.

Theoretical Implications

The findings have important implications regarding self-control decisions, providing two main contributions to the literature. First, this paper integrates bodies of knowledge that were studied separately in the academy: influence of optimistic biases in social judgment and temporal distance. The findings contribute to the research on self-control and temporal distance, demonstrating that judgment bias can change the way consumers focus on self-control decisions in the present and in the future. Our results suggest that the optimistic bias reverses the results of the previous research (Laran, 2010), leading to more indulgent choices and preferences in the present and greater self-control in the future.

Second, we contribute to the analysis of the effects of judgments on temporal distance, since consumers tend to use biases unconsciously to evaluate products and analyze future shopping behavior (Tanner and Carlson, 2009). The influence of optimistic biases in social judgment has generated much discussion of the processes that may underlie them (Chambers and Windschitl, 2004; Price, Smith, and Lench, 2006). Much of this research has focused on comparative social processes that can produce judgments that are optimistic (*vs.* pessimistic). Our findings provide a deeper understanding of the mediation process of judgment bias and temporal distance through perceived control. The results reveal that optimistic (vs. pessimistic) bias and temporal distance is mediated by the level of perceived control. Finally, we also provide evidence to rule out alternative explanations of the mediating process (humor, self-confidence, and self-esteem).

Practical Implications

Managers and retailers of brands and sports teams can use the results of this study to improve their short-term and long-term strategies. Sporting goods brands can distribute their inventories of products within a timeline and make marketing decisions based on the judgment biases of their fans. For instance, companies can focus their

marketing effort on the future when consumers hold a pessimistic view of their team since the sports fans are likely to exhibit self-control in the present. However, in the future, the consumers tend to become more indulgent in their purchasing decisions. The reverse is also true. That is, if consumers hold an optimistic view of their team, companies should focus their marketing efforts on the present, as the fan will exhibit greater indulgence in the present and self-control in the future.

Sports teams can also use the findings of this research to organize their loyalty strategies, which are often pursued through membership campaigns. We believe that our results help managers adapt short- and long-term marketing efforts, such as loyalty programs. It is common to note the investment of sports clubs in loyalty program programs (e.g., FC Barcelona, New England Patriots, Golden State Warriors). These programs promote short- and long-term purchasing decisions. Managers of these loyalty programs should be aware based on the momentary chronic judgments of its fans. Based on our findings, we also believe that the long-term management of competitions (e.g., FIFA, NBA, NFL) should understand consumers chronic judgment biases and their effects on the consumption of present and future.

Another sector that can also use the results of the paper to better develop their strategies is the sports brands sponsorship (for example, Nike, Adidas, Reebok, among others). These long-term contracts should be formulated by analyzing how pessimism and optimism bias can influence self-control decisions. This can influence the total amount of purchases of sports goods during the season. Managers of sports brands should not only concern themselves with the current performance of the athletes but also how consumers' chronic optimism in the present that may result in greater perceived control in the future (i.e., less spending in sports goods).

Limitations

This research presents important limitations that should be addressed in future studies. The first study presented an important limitation in terms of judgment bias manipulation. In Study 2, the optimism/pessimism bias was manipulated using a scenario. We have adapted scenarios from the traditional view of judgment bias (Scheier et al., 1994). Studies 2 and 3 aims to overcome this limitation and measures participants' chronic optimism through LOT-R Scale (Scheier et al., 1994). This allows reducing the limitation of the judgment bias scenarios used in Study 1.

The temporal distance may be influenced beyond theories of pessimistic and optimistic bias, such as: *(i)* elaboration on *pros* and *cons*, as discussed by Eyal, Liberman, Trope, and Walther (2004); *(ii)* the mindsets of gain and loss, as discussed by White *et al.* (2011); and *(iii)* extrinsic and intrinsic actions, as discussed by Choi and Fischbach (2011). Specifically, future studies of this topic could seek to associate replications of this experiment with elaborations of arguments or ideas.

Another important limitation is the use of a personal chronic trait as a mediator (perceived control). Our theoretical account for the mediation process is based on previous literature on perceived control. We found in past research that the perception of control can then directly modify biases in comparative judgments (Lin et al., 2004; Kruger, 1999; Menon et al., 2009). However, it is important to note that other mechanisms that induce control and judgment may have stronger effects on respondents. Future studies can investigate alternative mediation processes for the role of optimistic and pessimistic biases and temporal distance.

In addition, this article explored self-control decisions in the present and future in the context of purchase sporting goods. The option to spend or save money on a specific sports article was presented to participants in various scenarios, based on self-control and optimistic and pessimistic bias. Extensions of our research in different consumption contexts are suggested to enable generalizations for our findings.

Finally, Study 3 used an online sample from a major sports website (ESPN). Although we were not able to report response rate, we suggest that future studies using broader samples should evaluate nonresponse bias.

REFERENCES

Bargh, J. A., and Chartrand, T. L. (2000). "The Mind in the Middle: A Practical Guide to Priming and Automaticity Research", in *Handbook of Research Methods in Social and Personality Psychology,* ed. Harry T. Reis and Charles M. Judd, New York: Cambridge University Press, p.253–285.

Busseri, M. A., Choma, B. L., and Sadava, S. W. (2009). ""As good as it gets" or "The best is yet to come"? How optimists and pessimists view their past, present, and anticipated future life satisfaction". Personality and individual differences, 47(4), 352-356.

Chambers, J. R., and Windschitl, P. D. (2004). "Biases in social comparative judgments: the role of nonmotivated factors in above-average and comparative-optimism effects", *Psychological Bulletin*, 130, p. 813-838.

Choi, J., and Fishbach, A. (2011). "Choice as an end versus a Means", *Journal of Marketing Research*, 48(3), p. 544-557.

Eyal, T., Liberman, N., Trope, Y., and Walther, E. (2004). "The Pros and Cons of Temporally Near and Distant Action", *Journal of Personality and Social Psychology*, 2004, 86(6), p. 781-795.

Fitzsimons, G. J., and Shiv, B. (2001). "Nonconscious and Contaminative Effects of Hypothetical Questions on Subsequent Decision Making", *Journal of Consumer Research,* 28, p.224-238.

Freitas, A. L., Gollwitzer, P. M., and Trope, Y. (2004). "The influence of abstract and concrete mindsets on anticipating and guiding others' self-regulatory efforts", *Journal of Experimental Social Psychology, 40,* p.739 -752.

Goodman, J. K., and Malkoc, S., A. (2012). “Choosing for Here and Now versus There and Later: The Moderating Role of Psychological Distance on Assortment Size Preferences”, *Journal of Consumer Research*, 39, p.1-19.

Hirt, E. R., Zillmann, D., Erickson, G. A., & Kennedy, C. (1992). Costs and benefits of allegiance: Changes in fans' self-ascribed competencies after team victory versus defeat. *Journal of personality and social psychology*, *63*(5), 724-737.

Helweg-Larsen, M., and Shepperd, J. A. (2001). “Do moderators of the optimistic bias affect personal or target risk estimates? A review of the literature”, *Personality and Social Psychology Review*, 5, p.74-95.

Katona, G. (1979). Toward a macro psychology. *American Psychologist*, *34*(2), 118-123.

Klein, C., and Helweg-Larsen, M. (2002). “Perceived control and the optimistic bias: A meta-analytic review”, *Psychology and Health*, 17, 436–437.

Laran, J., and Janiszewski, C. (2009). “Behavioral Consistency and Inconsistency in the Resolution of Goal Conflict”, *Journal of Consumer Research,* 35, p.967-984.

Laran, J. (2010). “Choosing Your Future: Temporal Distance and the Balance between Self-Control and Indulgence”, *Journal of Consumer Research,* 36, p.1002-1015.

Lench, H. C., and Ditto, P. H. (2008). “Automatic optimism: Biased use of base rate information for positive and negative events”, *Journal of Experimental Social Psychology*, 44, p. 631-639.

Liberman, N., and Trope, Y. (1998). “The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory”, *Journal of Personality and Social Psychology*, 75, p.5–18.

Menon, G., Kyung, E. J., and Agrawal, N. (2009). “Biases in social comparisons: Optimism or pessimism?”, *Organizational Behavior and Human Decision Processes*, 108, p. 39-52.

Mueller, E. (1957). Effects of consumer attitudes on purchases. *The American economic review*, *47*(6), 946-965.

NFL.com (2014). “Seahawks crush Broncos for first Super Bowl win”, URL http://www.nfl.com/news/story/0ap2000000322949/printable/seahawks-crush-broncos-for-first-super-bowl-win (accessed 16 January 2015).

Peetz, J., Buehler, R., and Wilson, A. (2010). “Planning for the near and distant future: How does temporal distance affect task completion predictions?”, *Journal of Experimental Social Psychology*, 46, p. 709-720.

Price, P. C., Smith, A. R., and Lench, H. C. (2006). “The effect of target group size on risk judgments and comparative optimism: the more, the riskier”, *Journal of Personality and Social Psychology*, 90, p.382-398.

Scheier, M. F., and Carver, C. S. (1985). “Optimism, coping, and health: Assessment and implications of generalized outcome expectancies”, *Health Psychology*, 4, 219–247

Shah, James Y., Kruglanski, and Arie W. (2003). “When Opportunity Knocks: Bottom-Up Priming of Goals by Means and Its Effects on Self-Regulation”, *Journal of Personality and Social Psychology,* 84, p.1109-1122.

Srull, T. K., and Robert S. W. (1979). “Role of Category Accessibility in the Interpretation of Information about Persons: Some Determinants and Implications”, *Journal of Personality and Social Psychology,* 37, p. 1660–1672.

Taylor, S. E., & Armor, D. A. (1996). Positive illusions and coping with adversity. *Journal of Personality*, *64*(4), 873-898.

Tangari, A. H., and Smith, R. J. (2012). “How the temporal framing of energy savings influences consumer product evaluations and choice”, *Psychology and Marketing*, *29*(4), 198-208.

The Telegraph (2014). “Brazil v Germany: Biggest humiliation in the history of Brazilian football as 7-1 thrashing in World Cup signals night the music died”, URL http://www.telegraph.co.uk/sport/football/world-cup/10955368/Brazil-v-Germany-Biggest-humiliation-in-history-of-Brazilian-football-as-7-1-thrashing-in-World-Cup-signals-night-the-music-died.html (accessed 16 January 2015).

Trope, Y., Liberman, N., and Wakslak, C. (2007). “Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation, and Behavior”, *Journal of Consumer Psychology,* 17(2), p.83-95.

Tobin, J. (1959). On the predictive value of consumer intentions and attitudes. *The review of economics and statistics*, 1-11.

Vohs, Kathleen D., Baumeister, Roy F., and Tice, Dianne M. (2008). “Self-Regulation: Goals, Consumption, and Choices”, In: Haugtvedt, Curtis P., Herr, Paul M., and Kardes, Frank R. *Handbook of consumer psychology*. Psychology Press Taylor and Francis Group, New York.

Yang, A. X., & Urminsky, O. (2015). The foresight effect: Local optimism motivates consistency and local pessimism motivates variety. *Journal of Consumer Research*, *42*(3), 361-377.

Weinstein, N. D. (1980). “Unrealistic optimism about future life events”, *Journal of Personality and Social Psychology*, 39, p. 806-820.

Westbrook, R. A. (1980). A rating scale for measuring product/service satisfaction. *The Journal of Marketing*, 68-72.

White, K., Rhiannon, M., and Dahl, D. W. (2011). “It’s the Mind-Set that Matters: the role of construal level and Message Framing in influencing consumer efficacy and conservation Behaviors”, *Journal of Marketing Research*, 76, p.472-485.

APPENDICES

MEDIATION RESULTS – ALTERNATIVE MODELS

Table 3. Mediation of Mood

Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	**Pessimism**	-.43	-10.61	3.20	*ns*
	Optimism	.84	-2.22	6.38	*ns*
Present	**Pessimism**	3.29	-10.20	4.33	*ns*
	Optimism	.93	-4.11	14.36	*ns*

***** *p* <.05**

Table 4. Mediation of Self-Esteem

Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	**Pessimism**	-.74	-15.50	8.08	*ns*
	Optimism	-.21	-7.82	3.12	*ns*
Present	**Pessimism**	3.39	-10.03	4.91	*ns*
	Optimism	.28	-4.57	10.75	*ns*

***** *p* <.05**

Table 5. Mediation of Self-Confidence

Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	**Pessimism**	.37	-3.37	9.81	*ns*
	Optimism	1.33	-2.75	14.51	*ns*
Present	**Pessimism**	.15	-6.44	9.83	*ns*
	Optimism	1.11	-2.89	15.39	*ns*

***** *p* <.05**

TEAM OPTIMISM IN STUDY 3*

Ranking	Team	Points
1	Corinthians	36
2	Grêmio	28
3	Santos	24
4	Flamengo	24
5	Palmeiras	22
6	Sport Recife	21
7	Cruzeiro	21
8	Vasco da Gama	20
9	Fluminense	20
10	Atlético	20
11	Botafogo	19
12	Coritiba	19
13	Chapecoense	18
14	Bahia	16
15	Atlético-PR	16
16	Ponte Preta	15
17	Avaí	13
18	São Paulo	12
19	EC Vitória	12
20	Atlético-GO	8

*** Notes:** Data from July 17th, 2017 – Brazilian League A (Brasileirão Série A 2017).

Top 10 teams were considered in a good season (team optimism) and teams in the bottom 10 places were considered to have a bad season (team pessimism). Please see Study 3 for ANOVA results on participants' level of optimism (vs. pessimism) towards their team and on their chronic level of judgment bias.

November 2017

Revision notes: Manuscript *"Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control Decisions"*

Dear Editor,

We would like to thank you again for the opportunity to review the paper. We have been working hard to get a revised version following *Journal of Consumer Marketing* reviewers' suggestions. In this new version, we have addressed all the comments from the reviewers, resulting in a substantial change in the paper. This shows our commitment and interest in publishing this paper at *Journal of Consumer Marketing* in a timely manner. First, we have revised the paper entirely to ensure consistency and clarification of constructs, removing any repetition in the paper. As a result, the paper reads better now and is much shorter (around 7300 words). Second, we have included a discussion on methodological issues pointed by the AE and reviewer. Third, we agree with the AE and reviewer to point the limitation of sports context. Since we have already collected two additional studies during the previous review rounds, we have included the context limitation in the general discussion. We thank the editor and AE for this possibility. Finally, we have followed the AE suggestion and changed the title: "Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control".

We are sending the new version of the manuscript and this letter, in which you will find our response to each of the reviewer's comments. Once again, we thank the editor and anonymous reviewers for helping us to improve the paper. So far, we have substantially changed the paper, collected two additional studies, and even received a new title suggestion. We would really like to thank the editor, AE, and reviewers for your help and dedication reviewing our paper!

Best regards,

The authors

EDITOR	OUR RESPONSE
The AE is in agreement with the reviewer that the use of terminology and relationships between constructs need clarification and consistent usage. Please see both the reviewer and AE comments.	We thank the AE and reviewer for this comment. We have revised the paper entirely to ensure consistency and clarification of constructs.
Further, the AE finds the front end to be somewhat repetitive / some sentences that need revising. Eliminating the repetition will improve readability, but importantly will also help you cut the word count.	We have revised the entire paper and removed any repetition in the paper. As a result, the paper reads better now and is much shorter.
Right now, your manuscript is at 9700 words, and the JCM word count limit is 8000 words.	We have followed the AE and reviewer suggestion. Now the paper has around 7300 words.
Please provide complete reporting of statistics and justification of the optimism/pessimism manipulation.	We have now included a complete reporting of statistics. We also provide a justification for the optimism/pessimism manipulation in Study 1. We have tried to overcome this limitation by using an optimism/pessimism scale (LOT-R scale – Scheier et al., 1994) in Studies 2 and 3.
Likewise, please offer an explanation regarding the perceived control measure, or include as a weakness in your limitations.	We have included an explanation regarding perceived control measure. In addition, we offer a discussion in the limitations section.
I do agree that it is unfortunate that all studies examine the sports memorabilia context. Though optimally a new study with a different context would be added, I am willing to go with the AEs suggestion that you acknowledge this as a limitation in the paper.	We agree with the limitation of sports context. Since we have already collected two additional studies during the previous review rounds, we have included the context limitation in the general discussion. We thank the editor and AE for this possibility.
Finally, the AE suggests a title change to better capture what the paper examines.	We have followed the AE suggestion and changed the title. We thank the AE for this suggestion because now the title captures better the idea of the paper. New title (following AE and reviewer suggestion): “Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control”
ASSOCIATE EDITOR	**OUR RESPONSE**
I agree with the reviewer that the terminology used throughout the paper needs to be tightened (…”balance between self-control and temporal distance”..CLT vs. temporal distance, etc.). I think the title of the paper is also a bit misleading: “Self-Control Today, Indulgence Tomorrow? How Judgment Bias Influences Self-Control and Temporal Distance” – this seems to suggest as if “Judgement Bias” influences “Temporal Distance” which is clearly not the case. Did you mean to say….“Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control”?	We have revised the terms according to the reviewer’s suggestion. We have removed all references to the “balance between self-control and temporal distance”. We also agree that the title might be misleading. So, we used a new title following reviewer and AE suggestion. New title (reviewer and AE suggestion): “Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control”
I am glad to see that more thought and discussion has gone into motivating H1 and H2. But in its current form, some of the front end theory is too spread out and repetitive. Multiple times in the paper, we are told in detail about the Laran etc. findings. The description of what is an optimistic and pessimistic judgment bias, or who is an optimist/pessimist, is also repeated at least twice. There is potential to eliminate these repetitions and tighten the front end of the paper. Currently, the front end occupies 9.5 pages. I think you should aim for cutting it down. Also, please take another stab at copy editing the paper and removing/altering some of the sentences like….”Studies of optimistic and pessimistic biases of judgment were always present in people's decision-making studies”. This would significantly improve the readability of the manuscript.	We thank the reviewer for this suggestion. We have revised the entire paper and removed any repetition in the paper. As a result, the paper reads better now and is much shorter. We have cut more than 2000 words in the paper. Now the paper has around 7300 words.
Also, some of the sentences in the paper don’t seem to make much sense….. “People tend to believe that good things are more likely to happen to themselves whereas other people	We thank the reviewer for pointing out these sentences. We have now removed and changed several sentences in the paper to improve

believe that bad things are more likely to happen to themselves compared to a normal person"….. "The general level of optimism and pessimism in society can directly affect the economy and, as a consequence, consumer actions the mood of financial decision makers and can lead to the market phenomenon (Nofsinger, 2005)". Please remove or amend these.	readability.
I am glad that you have collected evidence for the mediating role of "perceived control". However, your measure for "perceived control" is a chronic/trait measure and not a situational measure. It is generally not acceptable to use a trait measure and demonstrate that it changes based on situational manipulations within an experiment. I think it is important to either offer an explanation or acknowledge this weakness.	We have included an explanation regarding perceived control measure. Our theoretical account for the mediation process is based on previous literature on perceived control. Although we understand the AE concern about perceived control being a chronic trait, we found in past research that the perception of control can then directly modify biases in comparative judgments (Lin et al., 2004). Situations with a greater perceived control lead to optimistic judgments (Kruger, 1999), whereas lower perceived control situations lead to pessimistic judgments (Menon et al., 2009). In addition, we offer a discussion in the limitations section.
I also agree with the reviewer that it is unfortunate that all your studies only examine the sports memorabilia context. Please acknowledge this as a limitation of this paper.	We acknowledge the limitation of sports context. Since we have already collected two additional studies during the previous review rounds, we have included the context limitation in the general discussion. We thank the editor and AE for this possibility.
Some of the references in the paper are missing. I found at least one: Van Raaij and Gianotten, 1990. Please check to see if there are more.	We have checked all the references in the paper. We have removed several references that were missing or repeated, reducing paper size.
There seem to be two tables in the paper marked as "Table 2". Please correct this.	We have solved the tables problem with a new round of careful copy editing.
REVIEWER 1	**OUR RESPONSE**
1. While I appreciate the more in-depth literature review has done a good job of justifying the importance of the main question, I think this manuscript could benefit strongly from reviewing the terminology used in the paper. There are several terms that are used in ways that confuse the main point of the paper (at least on my read). A few of these that seem most important for clarity: a. The phrase "balance between self-control and temporal distance" is used several times in the paper, including in H2, and I am let confused each time. This sounds more like a tradeoff between self-control and temporal distance, and it seems from the paper what is really intended is a moderation on the relationship between temporal distance and self-control, specifically by optimism/pessimism? b. Not purchasing and self-control seem to be used interchangeably at times, but since self-control is manipulated, it's confusing to suggest that the people who are not purchasing in the non-self-control condition are also exhibiting self-control. c. At times "CLT" and "present/future" seem to be used interchangeably. Talking about the future vs present is more than a "CLT" manipulation, and should be treated more generally as temporal distance.	We have revised the terms according to the reviewer's suggestion. We have removed all references to the "balance between self-control and temporal distance" and we have carefully read the concepts related to self-control and CLT, as pointed by the reviewer.
2. The evidence seems to entirely focus on situations with purchasing sporting team swag, but the justification for the question is about consumer purchases in general. Yet people seem unusually superstitious around sports memorabilia, so I wonder whether the results you find in this domain extend to other domains or not. Either more justification should be provided about why we want to understand sporting goods purchases in particular, or some evidence should be provided	We acknowledge the limitation of sports context. Since we have already collected two additional studies during the previous review rounds, we have included the context limitation in the general discussion. We thank the editor and AE for this possibility.

that this pattern exists beyond sports memorabilia.	
3. Across studies, statistics are often reported incompletely, for example without degrees of freedom, and there is often no means or s.d.'s outside of figures. This makes difficult to examine the tests that were run. Particularly important to report to increase confidence that the mixed design study applied an appropriate model.	We have reported the missing statistics. We thank the reviewer for this suggestion.
4. I would like to see some more justification for the optimism/pessimism manipulation. Was it used previously, or pretested, or manipulation check (the quality of the players they named was not convincing that what was manipulated was a view of the future that is artificially positive or negative))	We have now included a complete reporting of statistics. We also provide a justification for the optimism/pessimism manipulation in Study 1. We have tried to overcome this limitation by using an optimism/pessimism scale (LOT-R scale – Scheier et al., 1994) in Studies 2 and 3.
5. When reporting results, in several places the direction of the relationships is not specified. Describing in the narrative the direction of relationships rather than in terms of "differences" would make understanding the results much more clear.	We have now reported results showing the direction of the relationships. We thank the reviewer for this comment.

Self-Control Today, Indulgence Tomorrow? How Judgment Bias and Temporal Distance Influence Self-Control Decisions ~~***Self-Control Today, Indulgence Tomorrow? How Judgment Bias Influences Self-Control and Temporal Distance***~~

Abstract

Purpose: This research ~~aims to analyze~~analyzes how judgment bias (optimism *vs.* pessimism) and temporal distance influence~~s the balance between~~ self-control decisions ~~and temporal distance~~. ~~This research proposes that optimism (*vs.* pessimism) bias can reverse previous research findings, leading to greater self-control in the future and greater indulgence in the present.~~ This research also analyzes the mediating role of perceived ~~control~~ control on judgment bias and temporal distance~~and alternative mediators on judgment bias and self-control decisions~~.

Design/methodology/approach: Three ~~experiments~~ studies (1 laboratory and 2 ~~nationwide~~ online experiments) analyze ~~analyze the balance between self-control and temporal distance on consumers' willingness to pay for sporting goods, according to optimism or pessimism bias.~~ how judgment bias and temporal distance influence self-control decisions on consumers' willingness to pay.

Findings: The ~~present research extends previous~~ findings uncover an important boundary condition of temporal distance on self-control decisions.~~, showing that judgment bias (optimism *vs.* pessimism) influences the balance between self-control and temporal distance.~~ In contrast to previous research, the findings indicate that individuals exposed to optimism (*vs.* pessimism) bias display more self-control in the future and make choices that are more indulgent in the present. The findings also reveal that perceived control mediates the effects of judgment bias and temporal distance.

Formatado: Não Realce

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Practical implications: ~~These results~~The findings help managers to adapt short and long-term marketing efforts, based on ~~the~~ consumers' momentary judgment biases~~s~~ ~~of consumers (pessimism vs optimism)~~ and on their ~~consumers'~~ chronic judgment bias orientation.

Originality/value: ~~Theoretically, T~~this research contributes to the ~~research~~ literature on self-control and temporal distance, showing that judgment bias ~~can change how consumers focus on~~reverses previous research findings on self-control decisions ~~in the present and in the future~~.

Key-words: self-control, judgment bias, temporal distance, optimism and pessimism bias, construal level

Formatado: Fonte: Não Negrito

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

INTRODUCTION

East Rutherford, NJ, 2014: "The Seattle Seahawks have won their first Super Bowl title, crushing the favored Denver Broncos 43-8" (NFL.com, 2014).

Rio de Janeiro, Brazil on 8 July 2014: "Brazil v Germany: the biggest humiliation in the history of Brazilian football. A 7-1 thrashing in the World Cup signals the night the music died" (The Telegraph, 2014).

After the Super Bowl or FIFA World Cup, supporters of one team experience positive outcomes, while supporters of the other team experience negative outcomes. Because of judgment biases, supporters may inflate or deflate their expectations of satisfaction from subsequent purchasing decisions ~~, leading consumers to evaluate their choices~~ through optimistic or pessimistic lenses. These biases in judgment can lead to optimism bias (i.e., a tendency to expect positive outcomes) or a pessimism bias (i.e., a tendency to expect negative outcomes). ~~Because of judgment biases, consumers inflate or deflate their expectations of satisfaction from subsequent purchasing decisions.~~ Therefore, consumers may increase or reduce their consumption ~~at different times~~, ~~variously~~ employing self-control ~~or indulgence~~ mechanisms in their actions (Goodman and Malkoc, 2012).

~~Recent r~~Research supports the notion that ~~the balance between~~ self-control and indulgence depend~~s~~ on temporal distance (Laran, 2010). Past studies show that self-control information persuades individuals to exercise self-control in the present but tends to orient them toward indulgence in the future (Laran and Janiszewski, 2009). Although ~~some~~ previous research ~~finds~~ suggests that people tend to perceive the future more clearly than the present (Busseri, Choma, and Sadava, 2009), this behavior is subject to change. ~~This is because optimists will normally expect positive results in the future, while pessimists will expect poor results (Scheier and Carver, 1985).~~ For example, in the context of sports, expectations of positive results are

Formatado: Não verificar ortografia ou gramática

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

normally greater than expectations of defeat for team fans. In this case, the immediate present interferes ~~with~~ in the decisions about the future (Hirt, Zillmann, Erickson, and Kennedy, 1992).

~~Drawing on previous research, this paper addresses the following research question: How does optimism (vs. pessimism) bias influence the balance between self-control and temporal distance? T~~The current work~~his research extends previous research in proposing~~proposes that ~~optimism and pessimism~~judgment biases ~~influence the effects of~~ and temporal distance influence ~~on~~ self-control decisions. ~~Our studies suggest that consumers induced to exhibit self-control are more likely to be persuaded in the future but oriented toward indulgence in the present, contributing to previous research (Shah, James, Kruglanski, and Arie, 2003; Laran, 2010; Goodman and Malkoc 2012).~~

~~THE Moderating ROLE OF~~ JUDGMENT BIAS~~, on Self-control AND~~ TEMPORAL DISTANCE, AND SELF-CONTROL DECISIONS

Extensive research on decision-making has studied the role of optimistic and pessimistic judgment biases on consumption (Mueller, 1957, Tobin, 1959, Katona, 1975, ~~Weinstein, 1980~~). The optimistic judgment bias is a trait that expresses the tendency of individuals to think that they are less likely than others to experience negative events and are more likely to experience positive events (Helweg-Larsen and Shepperd, 2001). Marketing studies have analyzed the effects of optimistic and pessimistic biases on consumer intentions and attitudes (~~Koehler and Poon, 2006,~~ Nguyen and Claus, 2013), spending and saving behavior (Katona, 1974, ~~Zullow, 1991~~), consumer satisfaction (Westbrook, 1980, ~~Johnson et al., 1995, Posavac et al., 2005~~), in predicting future behavior (~~Adams, 1965, Tanner and Carlson, 2009,~~ Yang and Urminsky, 2015).

Formatado: Não Realce

Formatado: Realce

Formatado: Realce

Formatado: Realce

Formatado: Realce

Formatado: Realce

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

-purchase patterns for ~~in~~ the present *versus* future (Trope, Liberman, and Wakslak, 2007; Eyal, Liberman, Trope, and Walther, 2004). This occurs because present decisions are richer in detail (concrete) than future ones (abstract) (Liberman and Trope, 1998; [illegible] buy a ticket to watch a team ~~on the~~ today~~weekend~~ or in six months. For the present situation (today) ~~Many~~ many details are involved ~~in thinking concretely about the event, such~~(e.g. ~~as~~ which players are likely to play, the prices of tickets~~), the temperature on the day of the game, among others. C~~, whereas ~~onversely,~~ for the future situation (six months from now) ~~a fan who plans to buy a ticket to watch his or her team in six months will represent the event more abstractly, as~~ it will not be possible to know the specific details (e.g. who will be playing~~, how much tickets will cost)~~ ~~and what the temperature will be on that day~~. ~~According to CLT, this occurs because our ideas (cognitions and thoughts) about the distant future are abstract and thus represented by simplified data, that is, without specific details (Freitas, Gollwitzer, and Trope, 2004; Laran, 2010; Goodman and Malkoc, 2012).~~

Consumers tend to use judgment biases to project their future consumption behavior (Tanner and Carlson, 2009). ~~When people think about the near or distant future, they also make judgments that support their decisions.~~ One key concept affecting judgment bias is the relationship of optimism/pessimism about future events (Lench and Ditto, 2008). Optimistic (vs. pessimistic) bias predisposes consumers to anticipate the good things that can happen. We argue that consumers induced to exhibit self-control are more likely to be persuaded in the future but oriented toward indulgence in the present. ~~It is important to analyze the effect of judgments on temporal distance since consumers tend to use judgment biases to evaluate products and analyze future shopping behavior (Tanner and Carlson, 2009). Judgments are guided by information biases about what individuals know and feel (Weinstein, 1980; Taylor, Lerner, Sherman, Sage, and McDowell, 2003; Menon, Kyung, and Agrawal,~~

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

[redacted]

H1. *Optimistic (vs. pessimistic) ~~information~~ bias will result in greater self-control in the future and greater indulgence in the present.*

THE ~~Mediating Role~~MEDIATION ~~of~~ PROCESS OF PERCEIVED CONTROL ON JUDGMENT BIAS ~~on Judgment Bias~~

~~This way of acting of the i~~Individuals ~~has~~ have generated numerous explanations from the judgment bias perspective. ~~Most of these explanations are in the motivational and non-motivational processes that consumers develop to reach a goal (Tanner and Carlson, 2009). This happens because j~~Judgment bias~~s~~ serves to protect and strengthen the self, producing thoughts that increase self-esteem and reduce perceived risk (Taylor and Armor, 1996). The judgments of optimism and pessimism tend to be enhanced when individuals make comparisons (~~Lin et al., 2004;~~ Menon et al., 2009). One factor that influences biases in judgment is perceived control (Klein and Helweg-Larsen, 2002). The perception of control can then directly modify biases in comparative judgments (~~Kruger, 1999,~~ Lin et al., 2004). Situations with a greater perceived control lead to optimistic judgments (Kruger, 1999), whereas lower perceived control situations lead to pessimistic judgments (Menon et al., 2009).

~~These~~ Previous studies have demonstrated ~~important advances emphasizing~~ that people's perception of control and psychological distance can influence~~the effect of~~ judgment bias ~~can be influenced by people's perception of control. This perception of control can be attenuated by the distance from the target of social comparison~~ (Menon et al., 2009).

Formatado: Não verificar ortografia ou gramática

Formatado: Realce

Formatado: Realce

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

H2. *Perceived control mediates the effect of optimistic ~~(vs. pessimistic) information~~ bias and temporal distance on ~~the balance between~~ self-control decisions ~~and temporal distance~~.*

OVERVIEW OF STUDIES

~~This research presents t~~Three studies ~~used to~~ analyze how judgment bias and temporal distance influence self-control ~~and temporal distance~~ decisions on consumers' willingness to pay for sporting goods. Judgment bias ~~(optimism vs. pessimism)~~ was made salient by scenarios (Study 1), chronically assessed in terms of participants' orientation (Study 2) or measured using real performance of soccer teams during a ~~nationwide~~ national championship (Study 3). Study 1 analyzes the effect of optimistic (vs. pessimistic) ~~scenarios~~ bias on participants' willingness to spend for sporting goods. Study 2 examines the mediation process of perceived control in which participants' ~~chronic~~ judgment bias orientation influence self-control decisions in the present and in the future. Study 3 shows that participants' judgment bias towards soccer teams in a real competition situation also influence self-control decisions.

STUDY 1: The Effects of Optimistic Scenarios on the Purchase of Sport Goods

Study 1 aims to ~~aims to demonstrate that~~examine how judgment bias (pessimism ~~versus~~ vs. optimism) and temporal distance may influence access to self-control information and thereby influence the purchasing of sporting goods ~~from their team, whether in the present or the future~~. In Study 1, we aim to demonstrate that judgments made under bias may change the impact of self-control on the purchase of sporting goods from their team. Study 1 includes information regarding how ~~optimism~~ optimistic scenario (~~caused, for example, by~~ e.g. hiring ~~a good player~~ a talented player)

Formatado: Fonte: Não Itálico
Formatado: Fonte: Não Itálico
Formatado: Fonte: (Padrão) Arial, 10 pt
Formatado: Fonte: (Padrão) Arial, 10 pt

asking respondents to choose whether to buy sporting goods in the present and future. We predicted that when exposed to the optimistic scenario, the priming information of self-control will tend to be inhibited. However, when exposed to the pessimistic scenario, the

Method

Participants and Procedure. Two hundred and eight participants, aged 17 to 54 years, from a major Brazilian University were invited to participate in a lab experiment (85.6% male, M_{age} = 37.165, SD = 9.22). This shows how the study focused on the number of teams concentrated in southern Brazil. The design of the experiment was 2 (temporal distance: present *versus* future) x 2 (Judgment: optimism bias *versus* pessimism bias) x 2 (priming effect: self-control *versus* neutral). The priming effect was manipulated between-subjects (which meansi.e. the participants received self-control or neutral information), while the temporal distance factor was manipulated within-subjects (which meansi.e. each participant made a choice for the present and the future). Further studies (2 and 3) were also conducted to reduce the within-subjects design limitation[1]. The questionnaire was conducted in Portuguese, and the scales translated using the procedure of back-translation (Zikmund and Babin et al., 2008).

Procedure and stimuli. The procedure of study 1 consisted of three tasks. The first task involved activation of the cognitive process through a set of words randomly shuffledpresented, the second task involved the projection of a judgment by manipulatingmanipulation of optimism biases (hiring a good player) and pessimism biases (hiring a poor player), and the third task involved choosing a consumption choice for the near futurepresent vs. the distant future. Participants entered the lab where the experiment was being conducted and completed the study oseated in front of a computer.

Formatado: Não verificar ortografia ou gramática
Formatado: Não verificar ortografia ou gramática
Formatado: Não verificar ortografia ou gramática
Formatado: Não verificar ortografia ou gramática
Formatado: Fonte: (Padrão) Arial, 10 pt
Formatado: Fonte: (Padrão) Arial, 10 pt

The first task was intended to activate the priming effect via a set of random words and phrases ~~representing these sets~~ (Srull and Wier, 1979). Participants were randomly assigned to one of two conditions: self-control and neutral. In the first condition, participants were presented with a random set of words ~~that were shuffled~~ and then asked to select the phrase that best represented the words. Forty words were grouped into four different blocks used to generate the self-control priming ~~effect~~. Each block contained ten words that were randomly ~~dispersed~~presented. Eight of these ten words activated self-control, using expressions such as *save, uncertainty, risk, join, restriction*, among others. The other two expressions were ~~common words~~familiar words that, at first, had no meaning, such as *water, car, night, dog, life,* among others. After observing the set of words, the participant had to choose the one that best represented the ten words from four options, such as "*Tomorrow is uncertain, so we need to save*." The search for words and the correct choice of phrases aimed to turn the information into a priming effect of self-control.

The second task was associated with the judgment of optimistic or pessimistic bias. The optimism/pessimism bias was manipulated using a scenario. We have adapted scenarios from the traditional view of judgment bias (Scheier et al., 1994). However, instead of traditional scale items (e.g. “I'm always optimistic about my future”, “Overall, I expect more good things to happen to me than bad”), participants read a scenario about their favorite team. Specifically, in the optimistic bias, participants were stimulated to answer who was the best player in the championship and were told that: "Your team has just hired this player". In contrast, participants in the pessimistic scenario received instructions that their team hired the worst player of the championship.

After the optimism/pessimism ~~task of priming~~manipulation ~~activation~~, we thanked the participants and asked them to begin a new task. The following instructions were given to the participants: "*Imagine that you only have* R$ 1,000 (US$ 333.33) *to spend during the month, counting all costs”.* The respondent should then choose two products to buy

Formatado: Não verificar ortografia ou gramática

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

from their favorite team, one to use today in their team's game and one that they will only be able to buy in six months. It was indicated to the respondents that the products were linked to the team they cheered for. In total, six products with different prices were listed. The original values were in Brazilian Reais (BRL). The values were converted into dollars to facilitate the analysis. Products were not described, and only the prices were linked to each: R$ 50 (US$ 16.66); US$ R$ 130 (US$ 43.66); R$ 160 (~~R$~~US$ 53~~6~~) ~~R$200 (US$66.66), R$230 (US$76.66 and R$260 (US$86.66). The values were converted to the data analysis. The original values were in Brazilian Reais (BRL).~~

After observing the prices of the products, respondents were asked to choose a product that represented the present (to be used today at their team's game) and another that represented the future (to be purchased in six months). Before choosing products, respondents received a recommendation not to take into consideration the current situation of their team. The participants were then asked to indicate, on a scale of 1 to 100, their level of passion for their team. This measure was used to check the manipulation. The mean level of passion was 56.43% (SD = 23.58). The summary statistics show that the participants were not extremely passionate about their teams, which could skew the data collected.

Pretest. Forty participants from the same sample evaluated the type of product that should be used. The suggestion was to designate parts of team uniforms as choices for the present and future. These parts included: *main team jersey, second jersey, workout jersey, goalkeeper jersey, cold outfit*, among others. However, most participants first chose the main uniform of the team as a sign of identification. As this would prevent a more parsimonious choice of the respondent, it was decided not to identify the product but only the price. The product was named “sports article”. When asked about spending on a ~~possible product~~product associated with the club they cheered for, participants agreed that values between R$ 50 (US$ 16.66) and R$ 260 (US$ 86.66) would be acceptable to a person who earned between R$ 1,000 (US$ 333.33) and R$ 2,000 (US$ 666.66) per month.

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

The optimism bias participants were encouraged to indicate who they believed was the best player currently playing. In the pessimistic scenario, participants were encouraged to indicate who they believed was the worst player currently playing. Directly afterward, they were given the following stimulus: ""*Your team has just hired that player*". ". After these statements were made in both scenarios, two questions were asked to assess whether this news would have enabled positive feelings regarding their judgments. The first question was whether their team had made a good choice. The response options were dichotomous (yes *vs*. no). The second question consisted of six statements, where the first three exhibited pessimism bias (*fans of other teams would make fun of the participant's team; the participant´s team would make fools of themselves when announcing the hiring, and the fans of the participant's team would revolt against the president of the team*), and the remaining three exhibited optimism bias (*fans of other teams would be jealous of the participant's team; the participants would be respected if this player were hired;; and the fans of the participant's team would support the decision of the president to hire this player*).

Finally, participants were thoroughly interrogated to verify the procedures for debriefing (Bargh and Chartrand, 2000; Fitzsimons and Shiv, 2001). Directly afterward, participants were informed of the real purpose of the experiment. They were then thanked and dismissed.

Results and Discussion

Interpretation of the priming manipulation. Through analysis of the first data set, evidence of manipulation in the first task of the experiment can be observed. With respect to the above time manipulation, we did not find a significant difference between the averages in the self-control and neutral conditions ($F_{(1,208)}$ = 0.154; *ns*). Participants in the self-control condition were exposed to a longer time period (*M* = 2 minutes and 02 seconds) than those in the neutral scenario (*M* = 1 minute and 58 seconds).

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

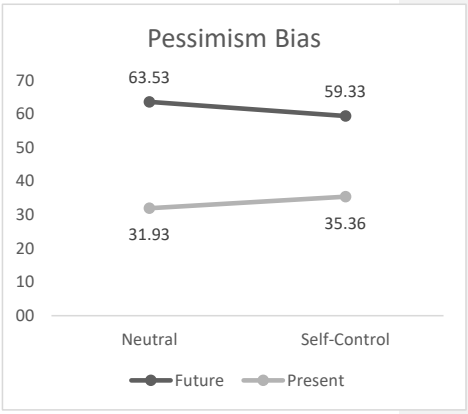
Judgment bias. The scenarios characterized by optimistic and pessimistic bias also elicited differences among participants. Under optimistic bias, responses indicated a good choice, while the opposite was true under pessimistic bias. With respect to which players participants regarded as potentially poor players, 84.3% of respondents named players on rival teams.

Choices made by participants. Figure 1 shows the averages of the choices made by the participants in the present and the future, in both the neutral and self-control scenarios, with differentiation between the pessimistic and optimistic biases. With respect to the ~~neutral scenario and the self-control/~~pessimistic bias scenario, the ANOVA indicated no significant differences between purchase decisions in the present ($F_{(1,97)}$ = 0.878; ~~p = 0.351ns~~) and future ($F_{(1,97)}$ = 1.119; ~~p = 0.293ns~~). That is, participants indicated similar willingness to pay for products in the future ($M_{neutral}$ = 63.53; $M_{self\text{-}control}$ = 59.33) and the present ($M_{neutral}$ = 31.93; $M_{self\text{-}control}$ = 35.36). With respect to the ~~neutral scenario and the self-control/~~optimistic bias scenario, the ANOVA showed significant differences between purchase decisions in the present ($F_{(1,111)}$ = 5.263; p < 0.05) and non-significant differences between purchase decisions in the future ($F_{(1,111)}$= 0.012; p = 0.914). In particular, as expected, participants indicated lower willingness to pay for products in the present, when received self-control information ($M_{neutral}$ = 64.13; $M_{self\text{-}control}$ = 54.06). However, in the future participants reported similar willingness to pay ($M_{neutral}$ = 44.36; $M_{self\text{-}control}$ = 43.93).

Pessimistic bias. The *t-test* indicates a significant difference between priming effects. In the self-control scenario, present choices averaged M = US$ 35.36, and future choices averaged M = US$ 59.33, with a *t-statistic* of ($t_{(1)}$ = -6,265; p<0,01). In the self-control scenario, 84.14% of participants chose to make a more indulgent purchase in the future. For the neutral group, there was a significant difference ($t_{(1)}$ = -8.645; p<0,01) between present choices (M = US$ 31.93) and future choices (M = US$ 63.56). In the neutral scenario, 72.23% of participants chose to make a more indulgent purchase in the future.

Formatado: Não Realce
Formatado: Não Realce
Formatado: Não Realce
Formatado: Não Realce
Formatado: Não Realce
Formatado: Fonte: Itálico, Não Realce
Formatado: Subscrito, Não Realce
Formatado: Não Realce
Formatado: Não verificar ortografia ou gramática, Subscrito, Não Realce
Formatado: Não Realce
Formatado: Não Realce
Formatado: Não Realce
Formatado: Recuo: Primeira linha: 1,25 cm
Formatado: Fonte: (Padrão) Arial, 10 pt
Formatado: Fonte: (Padrão) Arial, 10 pt

Optimistic bias. The *t-test* indicates a difference between priming effects. In the self-control condition, there is a significant difference ($t_{(1)} = 2.237$; $p < 0.05$) between present choices (M = US$ 54.06) and future choices (M = US$ 43.93). People purchasing for today's game (present) will make more indulgent choices when purchasing six months from now (future) when they will tend to exercise more control in their purchases of sporting goods. Regarding self-control, 67.24% of participants chose to make a more indulgent purchase in the present. Regarding the neutral group, there are significant differences ($t_{(1)} = 4.998$; $p < 0.01$) between present choices (M = US$ 64.13) and future choices (M = US$ 44.36). Purchases in the present are more indulgent, while purchases for the future exhibit greater self-control, which confirms H_1. In the neutral situation, 86.11% of participants chose to make a more indulgent purchase in the present.



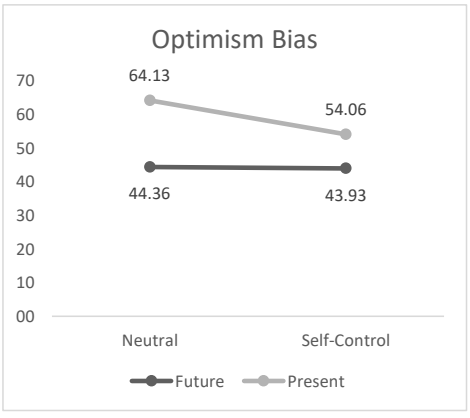


Figure 1: Results of Study 1 – Willingness to Spend (in US$)

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

The findings suggest that the scenario involving optimistic judgments reverses the results of previous research (Laran, 2010). The results of study 1 show that optimistic bias among supporters can lead to more indulgent choices and preferences in the present and greater self-control in the future. Given an optimistic bias, one will exercise greater self-control in the future~~, whether in the self-control or the neutral scenario~~, ~~which confirms~~supporting H_1. Furthermore, it was found that a pessimistic bias among supporters can lead to choices and preferences that reflect greater self-control in the present and more indulgent behavior in the future.

STUDY 2: The Effects of Chronic Optimism Mediated by Perceived Control

Study 2 aims to demonstrate that judgment bias (pessimism *versus* optimism bias) may influence access to self-control information and thereby influence the total amount of sports goods purchase according to temporal distance. Study 2 extends the previous study in three ways. First, study 2 measures participants' chronic optimism (using LOT-R Scale – Scheier et al., 1994), reducing limitation of the judgment bias scenarios used in study 1. Second, this study activates positive feelings under the self-control and neutral conditions, asking respondents to choose whether to buy sporting goods in the present and future (between subjects design). Third, in study 2, we try to demonstrate that judgments made under chronic optimism (vs pessimism) may change the impact of perceived control on the purchase of sports goods (mediation process). We predict that when participants have chronic optimism, will results in greater perceived control in the future (vs. present). However, when participants have chronic pessimism, the self-control priming information should not influence participants' perceived control. In this study, the dependent variable was the total amount of cost of the products participants chose to buy. We have asked basketball supporters to simulate a shopping trip at the NBA Store website. We have also controlled for

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

participants' involvement in basketball, and average spending for sport-related merchandise during the NBA season[2].

Method

Participants and Procedure. One hundred and third nine participants, aged 18 to 72 years, from Amazon Mturk were invited to participate in an online experiment (62.6% female, M_{age} = 39.23, SD = 12.39). The design of the experiment was 2 (judgment bias: optimism ~~bias~~ *versus* pessimism bias) x 2 (priming effect: self-control *versus* neutral) x 2 (temporal distance: present *versus* future), between subjects in all conditions. The between-subjects design in study 2 aimed to reduce the ~~within~~ within-subjects limitation~~s~~ ~~pointed~~ in ~~study~~ Study 1.

Procedure and stimuli. The participants were told they would participate in three independent tasks. The first task involved the measurement of participants' chronic optimism (vs. pessimism). We have employed the Life Orientation Test-Revised (LOT-R) from Scheier et al. (1994). The 10-item of LOT-R measure of optimism versus pessimism. Of the 10 items, 3 items measure optimism, 3 items measure pessimism, and 4 items serve as fillers. Respondents rated each item on a 7-point scale (1 = strongly disagree to 7 = strongly agree). In our study, we have created a composite score of participants' chronic optimism using the three items measuring optimism and reversing the scores of the three pessimism items. Higher scores indicate optimism and lower scores indicate pessimism (*M* = 4.67; *+1SD* = 6.06; *-1SD* = 3.29). The final chronic optimism score based on the LOT-R scale was reliable in our sample (α = .911, 6 items).

To analyze the mediation process, we have used the following scales: mood (4 items), self-esteem (3 items), self-confidence (3 items), perceived control (3 items). Is important to note that perceived control is usually treated as a chronic trait, however, we believe that judgment bias may influence participants perceived control temporarily.

Formatado: Não verificar ortografia ou gramática

Formatado: Não verificar ortografia ou gramática

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Our theoretical account is based on past research that shows the perception of control can then directly modify biases in comparative judgments (Lin et al., 2004; Kruger, 1999; Menon et al., 2009). ~~Respondents~~ Participants rated each item on a 7-point scale (1 = strongly disagree to 7 = strongly agree). Table 1~~2~~ provides the details of the mediation scales used in Study 2:

Table ~~2~~1. Mediation Scales in Study 2

Scale	Items	Source
Mood Scale (4 items, α = .830)	Currently, I am in a good mood.	Mood Short Form - MSF - Peterson and Sauber (1983)
	As I answer these questions I feel cheerful.	
	For some reason, I am not very comfortable right now.	
	At this moment, I feel edgy or irritable.	
Self-Esteem (3 items, α = .902)	I have high self-esteem.	Rosenberg Self-Esteem Scale (1989)
	In general, I am satisfied with myself.	
	I have no doubt about my social competence.	
Self-Confidence (3 items, α = .795)	I generally look at the brighter side of life.	Self-Confidence factor – Tafarodi and Swann (1995)
	I am confident that products are safe.	
	I am optimistic about the quality of products.	
Perceived Control (3 items, α = .681)	To a great extent, my life is controlled by accidental happenings.	Levenson (1973)
	I feel like what happens in my life is mostly determined by powerful people.	
	How many friends I have depends on how nice person I am.	

The second task was intended to activate the self-control priming ~~effect~~ via a set of random words and phrases ~~representing these sets~~ (Srull and Wier, 1979). Participants were randomly assigned to one of two conditions: self-control and neutral. Both priming conditions followed the exact same procedure as in Study 1. ~~In the first condition, participants were presented with a set of words that were shuffled and then asked to select the phrase that best represented the words. Forty words were grouped into four different blocks used to generate the priming effect. Each block contained ten words that were randomly dispersed. Eight of these ten words activated self-control, using expressions such as *save, uncertainty, risk, join, restriction*, among others. The~~

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

After the ~~task of~~self-control priming activation, we thanked the participants and asked them to begin the third task. The following instructions were given to the participants: "*On the next page, you will be asked to simulate a shopping trip at the NBA Store website. Please click on the product (or products) that you want to buy. You can buy as much as products as you want."*

We have used an average of prices depicted in the NBA Store by June 2017 and used the same pricing strategy than the official website (i.e. prices ended with $.99 values). In total, eight products with different prices were listed. To avoid problems with participants' team preferences, we have used icons to represent the main categories on the website: jerseys, T-shirts, jackets, bags, balls, hats, shorts, and socks. We have also given participants the option to not buy anything ("not buying"). For that question, we have used hot spot question on Qualtrics, in which participants clicked on the products: "*Instructions: One click: means you would buy the product (the product turns green). No click or two clicks: means you would not buy the product at all*". The dependent variable was the total amount of cost of the products participants chose to buy.

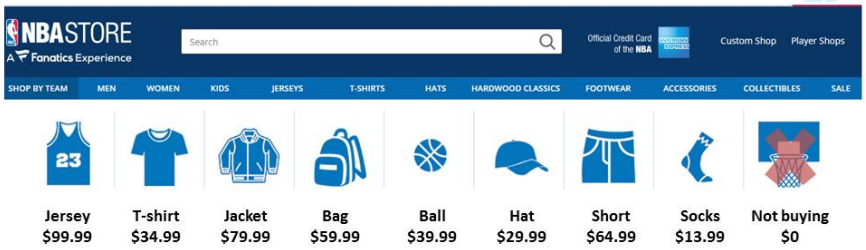


Figure 2: NBA Store simulation in Study 2.

~~We have used an average of prices depicted in the NBA Store by June 2017 and used the same pricing strategy than the official website (i.e. prices ended with $.99~~

Formatado: Não verificar ortografia ou gramática
Formatado: Não verificar ortografia ou gramática
Formatado: Fonte: (Padrão) Arial, 10 pt
Formatado: Fonte: (Padrão) Arial, 10 pt

team. To activate ~~CLT~~ temporal distance (future vs present), participants were randomly assigned between-subjects in one of the two ~~CLT~~ conditions~~, between subjects~~: "*Please click on the products that you wish to buy NOW, today, during this research*" or "*Please click on the products that you wish to buy in the FUTURE, six months from today*".

After that, we have also controlled for participants' involvement in basketball, and average spending for sport-related merchandise during the NBA season. We have measured participants involvement to the sport (basketball), in a differential semantic scale (α = .916; 6 items): I hate basketball : I love basketball; Not a fan of basketball : I am a fan of basketball; I don't watch basketball matches: I usually watch basketball matches; I do not go to basketball arena: I often go to basketball arena; I do not buy basketball merchandising: I often buy basketball merchandising; I know nothing about basketball: I know everything about basketball. We have also asked for participants' favorite basketball team and their average spending in sport-related merchandising during the NBA season. These variables were controlled for during the analysis of study 2 and did not influence the results.

Formatado: Não verificar ortografia ou gramática

Formatado: Não verificar ortografia ou gramática

Results and Discussion

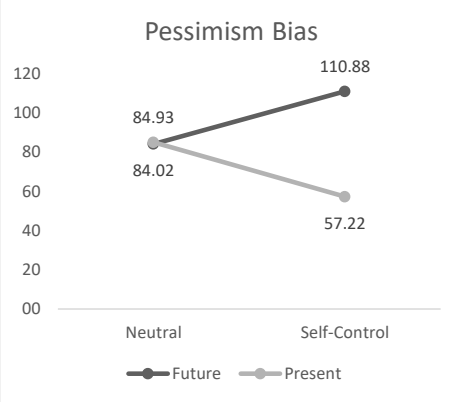
Choices made by participants. The three-way ANOVA indicate that there is a significant interaction between chronic optimism, self-control, and temporal distance ($F_{(1,130)}$ = 5.74; p < 0.05) (see Figure 3). ~~The ANOVA indicates a significant difference between priming effects (Figure 3).~~

Optimistic bias. The ANOVA indicates ~~a difference between priming effects.~~ that ~~In~~ in the self-control condition, participants had lower spending for future choices (M = US$ 72.06) when compared to the neutral condition (no self-control information) (M = US$ 156.94) ($F_{(1,130)}$ = 7.20; p < 0.01). People purchasing for today's game (present) will make more indulgent choices when purchasing six months from now (future), when they will tend to exercise more

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

control in their purchases of sporting goods, providing further support for H_{12}. ~~With regard to~~Regarding the neutral group, there were no significant differences between present choices ($M_{self-control}$ = US$ 85.27) ($M_{neutral}$ = US$ 56.21) ($F_{(1,130)}$ = .64; *ns*).



Pessimistic bias. For the pessimistic bias, the ANOVA do not indicate a difference between priming effects. In the self-control condition, participants similar spending for future choices (M = US$ 110.88) when compared to the neutral condition (no self-control information) (M = US$ 84.02) ($F_{(1,130)}$ =.55; $p < ns$). ~~With regard to~~Regarding the neutral group, there were no significant differences between present choices ($M_{self-control}$ = US$ 57.22) ($M_{neutral}$ = US$ 84.93) ($F_{(1,130)}$ = .58; *ns*).

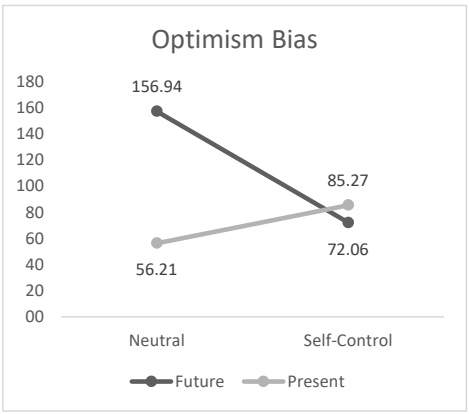


Figure 3: Results of Study 2 – Willingness to Spend (in US$)

Mediation Analysis. This section analyzes the mediation process of self-control and temporal distance, moderated by judgment bias (Model 10 - Hayes, 2013).

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

In this study, we have measured several ~~possible~~ potential mediators (perceived control, mood, self-esteem, and self-confidence) to test the main process and alternative paths. The analyses use the bootstrap procedure suggested by Hayes (2013) and Zhao *et al.* (2010). All the analysis presented in this section use the Hayes (2013) macro for SPSS® and 5,000 bootstrapped samples. In the bootstrapping procedure, the indirect effect (axb) is significant when the confidence interval excludes zero (Zhao *et al.*, 2010). The models assigned the four variables as the mediator (perceived control, mood, self-esteem, and self-confidence), self-control as the independent variable, judgment bias as moderator, total amount of purchase as the dependent variable, and involvement in the sport as the covariate. Involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 23.55; 95% CI: 12.30 to 34.80).

Results support the mediation of perceived control, but not for the alternative mediators (mood, self-esteem, and self-confidence). The bootstrap analysis shows that the indirect effect of self-control and judgment bias through perceived control was significant for consumers with chronic optimism and in future decisions (indirect effect (a x b) = 12.30; 95% CI: .68 to 34.09), supporting ~~mediation for perceived control~~H_2. The positive valence of the mediation effects suggests that self-control is driving the effects. That is, consumers in self-control condition seem to have more perceived control of the situation, and are more optimistic about future decisions, increasing the spending on sports merchandise related to their team. The findings also indicate that perceived control does not mediate total amount of spending in the team when consumers are chronically pessimistic (indirect effect (a x b) = -3.03 and 3.29, *ns*) or when they are chronically optimistic but make decisions for the present (indirect effect (a x b) = 12.12, *ns*). Table 2 presents the mediation results for perceived control. Results for alternative mediators (mood, self-confidence, and self-esteem) did not reach significance (for details, please see the appendix).

Formatado: Subscrito

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

~~CLT~~Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	**Pessimism**	-3.03	-24.34	8.17	*ns*
	Optimism	12.30	.68	34.09	***
Present	**Pessimism**	3.29	-24.08	10.33	*ns*
	Optimism	12.12	-.26	40.11	*ns*

*** p <.05

~~The positive valence of the mediation effects suggests that self-control is driving the effects. That is, consumers in self-control condition seem to have more perceived control of the situation, and are more optimistic about future decisions, increasing the spending in sports merchandise related to their team. The findings also indicate that perceived control does not mediate total amount of spending in the team when consumers are chronically pessimistic (indirect effect (a x b) = -3.03 and 3.29, *ns*) or when they are chronically optimistic but make decisions for the present (indirect effect (a x b) = 12.12, *ns*). Results for alternative mediators (mood, self-confidence, and self-esteem) did not reach significance (for details, please see the appendix).~~

STUDY 3: The Effects of Team Optimism in a Real Soccer Season

Study 3 provides further evidence ~~of the findings of the previous studies~~for our hypotheses, using a different form of judgment bias that could influence access to self-control information~~, whether in the present or the future~~. ~~In this study, two different points of the second study were adde~~This study extends the previous studies in two ways~~d~~. First, we have measured participants' optimism and pessimism towards their team (adapted from LOT-R Scale – Scheier et al., 1994). The optimistic or pessimistic bias was determined by whether the soccer team had a prosperous or a bad season. We have used real data from Brazilian Soccer League A (see the method for details). Thus, the study can verify that the purchase intention was based on an optimistic or a pessimistic bias that is based on real team performance, during a national championship. Second, study 3 was also used to increase the external validity of the

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

results, using an online sample from a major nationalwide sports website (ESPN – Entertainment and Sports Programming Network). ESPN is the leading provider of multi-platform sports content in the Brazilian media.

Method

Participants and Procedure. One hundred and third-six participants, aged 15 to 69 years, located in more than 10 states from a major Brazilian nationwide sports website (ESPN.com.br) were invited to participate in an online experiment (61.7% male, M_{age} = 35.59, SD = 12.79). In exchange for participation, subjects participated in a raffle of a soccer jersey of their favorite team. The design of the experiment was 2 (Judgment bias

Procedure and stimuli. The procedures of study 3 were implemented similarly to those employed for the same three tasks in study 2. There were differences only in the second task, which involved the measurement of judgment bias towards their soccer team (adapted from Scheier et al., 1994), enabling optimistic (vs. pessimistic) bias for a prosperous (vs. bad) year. Participants informed their favorite soccer team and after that, we have measured participants' optimism and pessimism towards their team (adapted from LOT-R Scale – Scheier et al., 1994). The optimistic or pessimistic bias was determined by whether the soccer team had a prosperous or a bad season. Exemplars of team optimism were found among supporters of *Corinthians* and *Grêmio*, while exemplars of team pessimism were found among supporters of *São Paulo* e *EC Vitória*. We have used real data from Brazilian Soccer League A (see Appendix). Top 10 teams were considered in a good season (team optimism) and teams in the bottom 10 places were considered to have a bad season (team pessimism). Results from one-way ANOVA suggest that participants that support teams in a good season had higher levels of optimism towards their team (n = 76, M = 5.44), than participants with bad season teams (n = 60, M = 4.87) ($F_{(1,134)}$ = 11.25; p <0.01). More importantly, the results of participants' optimism or pessimism towards their team were not influenced

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

by their chronic level of judgment bias (LOT-R): chronic optimism M = 5.04; chronic pessimism M = 5.03 ($F_{(1,134)}$ = .003; *ns*).

After the task of priming activation, we thanked the participants and asked them to begin the shopping task. We have used an average of prices depicted in the major Brazilian online store by June 2017 and used the same pricing strategy (i.e. prices ended with R$ .90 values). In total, eight products with different prices were listed. To avoid problems with participants' team preferences, we have used icons to represent the main categories on the website: official jerseys, T-shirts, jackets, bags, balls, hats, shorts, and socks. As in Study 2, we have also given participants the option to not buy anything ("not buying"). The dependent variable was the total amount of cost of the products participants chose to buy (values in Brazilian Reais – BRL).

The respondent should then choose products to buy (or not) from their favorite team. To activate ~~CLT~~ temporal distance (future vs present), participants were randomly assigned between-subjects in one of the two ~~CLT~~ conditions~~, between subjects~~: "*Please click on the products that you wish to buy NOW, today, during this research*" or "*Please click on the products that you wish to buy in the FUTURE, six months from today*".

After that, we have also controlled for participants' involvement in soccer, and average spending for sport~~-~~-related merchandise during the Brazilian soccer season. Similarly to Study 2, we have measured participants' involvement in~~to~~ the sport (soccer), in a differential semantic scale (α = .927; 6 items). We have also asked for participants' favorite soccer team and their average spending in sport-related merchandising during the Brazilian soccer season. These variables were controlled for during the analysis and did not influence the results. Finally, participants were ~~thoroughly~~ interrogated to verify the procedures for debriefing (Bargh and Chartrand, 2000; Fitzsimons and Shiv, 2001). They were then thanked and dismissed.

Results and Discussion

Formatado: Não verificar ortografia ou gramática

Formatado: Não verificar ortografia ou gramática

Formatado: Não verificar ortografia ou gramática

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Participants' Chronic Optimism. The three-way ANOVA indicate that there is a significant interaction between chronic optimism, self-control, and temporal distance ($F_{(1,128)}$ = 5.51; p < 0.05). To provide a better understanding of the results, we ran a bootstrap analysis (model 3 – Hayes, 2013). The analyses use the bootstrap procedure suggested by Hayes (2013) and Zhao *et al.* (2010). The model assigned self-control as the independent variable, chronic judgment bias as moderator, total amount of purchase as the dependent variable, and involvement in the sport as the covariate. Involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 19.30; 95% CI: 10.62 to 27.99).

The bootstrap analysis shows that the indirect effect self-control and judgment bias was significant for consumers with chronic optimism and in future decisions (indirect effect (axb) = 89.39; 95% CI: -1.55 to 180.33, p = .0054), providing further support to H1. The positive valence of the indirect effects suggests that consumers in self-control condition and are more optimistic about future decisions, tend to increase the spending oin sports merchandise related to their team. The findings also indicate that self-control does not influence the total amount of spending in the team when consumers are chronically pessimistic (indirect effect (a x b) = 14.01, *ns*).

Team Optimism. In this section, we analyze the results for team optimism. We ran a bootstrap analysis (model 3 – Hayes, 2013), using the procedure suggested by Hayes (2013) and Zhao *et al.* (2010). The model is similar than previous analysis with the difference of using team judgment bias as moderator (instead of chronic optimism/pessimism). Again, involvement with the sport was an important covariate regarding the total amount of spending and was controlled for during the tests (effect = 23.73; 95% CI: 12.35 to 35.11).

The bootstrap analysis shows that the indirect effect self-control and judgment bias was significant for consumers when the team season is good (i.e. team optimism) (indirect effect (axb) = 146.74; 95% CI: 41.49 to 251.98, p <.01), providing further

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

support to H1. The positive valence of the indirect effects suggests that consumers in self-control condition and are more optimistic about their teams, tend to increase the spending on sports merchandise. The findings also indicate that self-control does not influence the total amount of spending in the team when consumers are chronically pessimistic about their teams (i.e. the team is in a bad season) (indirect effect (a x b) = -18.23, *ns*).

GENERAL DISCUSSION

This article investigated how optimistic and pessimistic bias and temporal distance can influence consumers' willingness to spend. Three studies conducted in the context of sports goods uncover an important boundary condition of temporal distance on self-control decisions. Conversely to previous research, the ~~Choices and consumer preferences evolve over time, as people and events change over time (Laran, 2010). The findings of this research have interesting implications regarding self-control and the near and distant future decisions. This article investigated the temporal distance projected on an action when influenced by judgments under optimistic and pessimistic bias that help minimize or boost purchase intention.~~

~~Pessimistic bias can lead to choices and preferences that display greater self-control in the near future but greater indulgence in the distant future, even if people are exposed to self-control information in the present. Therefore, whether people have an optimistic or a pessimistic bias influences the choices and preference of sports fans when purchasing sporting goods. In particular, the perception of greater (lower) self-control with an optimistic (pessimistic) bias can lead sports fans to more indulgent choices and preferences (self-control) in the near future and greater self-control (indulgence) in the distant future.~~

Theoretical Implications

Formatado: Recuo: Primeira linha: 1,27 cm

Formatado: Recuo: Primeira linha: 0 cm

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

The findings have important implications regarding self-control decisions, providing~~The three studies presented here provide important~~ two main ~~points~~ contributions to the literature~~about the academic contributions~~. First, ~~because our three studies integrate a variety of findings in the existing literature. O~~this~~ur~~ paper integrates ~~areas of study~~bodies of knowledge that ~~until then~~ were studied separately in the academy: influence of optimistic biases in social judgment and temporal distance. ~~Although trial studies have already been studied in the present and in the future (Lench and Ditto, 2008). No study has examined the distance of decisions at the same time.~~

~~In addition~~Second, we contribute to the analysis of the effects of judgments on temporal distance, since consumers tend to use biases unconsciously to evaluate products and analyze future shopping behavior (Tanner and Carlson, 2009).

optimistic biases in social judgment has generated much discussion of the processes that may underlie them (Chambers and Windschitl, 2004; Price, Smith, and Lench, 2006). Much of this research has focused on comparative social processes that can

[illegible]

temporal distance is mediated by depends on the level of perceived control perceived in the choices. Finally, we also provide evidence to rule out alternative explanations of the mediating process (humor, self-confidence, and self-esteem).

Practical Implications

Managers and retailers of ~~sports~~ brands and ~~soccer~~ sports teams can use the results of this study to improve their short-term and long-term strategies. ~~Those who plan sales strategies for s~~Sporting goods brands can distribute their inventories of products within a timeline and make marketing decisions based on the judgment biases

[illegible]

Formatado: Fonte:

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

when consumers hold a pessimistic view of their team, as since the sports fans is are likely to exhibit self-control in the present. However, in the distant future, the fan consumers will tend to become more indulgent in his or hertheir purchasing decisions. The reverse is also true. That is, if the consumers holds an optimistic view of his or her their team, companies can should focus their marketing efforts on the near futurepresent, as the fan will likely exhibitexhibit greater indulgence in the presentand. However, in the distant future, fans will tend to exercise more self-control in their purchasing behavior in the future.

These findings suggest that marketing efforts in the sale of sports articles should follow a timeline in which actions should be scheduled for the short and long term, based on the momentary judgments of fans. Managers should gather market information about consumers' judgment bias about what their brands (Menon, Kyung, and Agrawal, 2009). Thus, market research can help us better understand the judgments of sports fans.

Another sector that can also use the results of the paper to better develop their strategies is the sports brands sponsorship (for example, Nike, Adidas, Reebok, among others). These long-term contracts should be formulated by analyzing the fact that the biashow pessimism and optimism bias can influence access to self-control decisions. This can influence the total amount of purchases of sports goods during the season. Managers of sports brands should not only concern themselves with the current performance of the athletes but also how consumers' chronic optimism in the present that may result in greater perceived control in the future (i.e., less spending in sports goods).

Limitations

This research presents its important limitations that should be addressed in future studies, in terms of experimental conditions. It is important to note that other mechanisms that induce control and judgment may have stronger effects on respondents. Moreover, optimistic and pessimistic bias is not the sole determinant of

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

~~the valuation of potential purchases in the near and distant future.~~ The first study presented an important limitation in terms of judgment bias manipulation. In Study 2, the optimism/pessimism bias was manipulated using a scenario. We have adapted scenarios from the traditional view of judgment bias (Scheier et al., 1994). Studies 2 and 3 aims to overcome this limitation and measures participants' chronic optimism through LOT-R Scale (Scheier et al., 1994). This allows reducing the limitation of the judgment bias scenarios used in Study 1.

The temporal distance may be influenced ~~by a tendency of humans to entertain a partial perspective of alternatives. In this context,~~ beyond theories of pessimistic and optimistic bias, ~~other approaches can explain temporal distance in the purchase of sporting goods. Such theories include~~such as: *(i)* elaboration on *pros* and *cons*, as discussed by Eyal, Liberman, Trope, and Walther (2004); *(ii)* the mindsets of gain and loss, as discussed by White *et al.* (2011); and *(iii)* extrinsic and intrinsic actions, as discussed by Choi and Fischbach (2011). Specifically, future studies of this topic could seek to associate ~~reapplications~~ replications of this experiment with elaborations of arguments or ideas.

Another important limitation is the use of a personal chronic trait as a mediator (perceived control). Our theoretical account for the mediation process is based on previous literature on perceived control. We found in past research that the perception of control can then directly modify biases in comparative judgments (Lin et al., 2004; Kruger, 1999; Menon et al., 2009). However, it is important to note that other mechanisms that induce control and judgment may have stronger effects on respondents. Future studies can investigate alternative mediation processes for the role of optimistic and pessimistic biases and temporal distance.

In addition, this article explored self-control decisions in the ~~near and distant~~present and future in the context of purchase sporting goods. The option to spend or save money on a specific sports article was presented to participants in various scenarios, based on self-control and optimistic and pessimistic bias.

Formatado: Recuo: Primeira linha: 1,25 cm

Formatado: Não verificar ortografia ou gramática

Formatado: Recuo: Primeira linha: 1,25 cm

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Extensions of our research Application of the procedures in different consumption environments contexts is are suggested to enable generalizations of the findings obtained here for our findings.

Finally, Study 3 used an online sample from a major sports website nationwide (ESPN). Although we were not able to report response rate, we think it is important suggest that future studies using broader samples to should evaluate nonresponse bias in future studies using broader samples. However, despite these limitations, we hope that this article might contribute to new research into self-control and temporal distance.

REFERENCES

Bargh, J. A., and Chartrand, T. L. (2000). "The Mind in the Middle: A Practical Guide to Priming and Automaticity Research", in *Handbook of Research Methods in Social and Personality Psychology,* ed. Harry T. Reis and Charles M. Judd, New York: Cambridge University Press, p.253–285.

Busseri, M. A., Choma, B. L., and Sadava, S. W. (2009). ""As good as it gets" or "The best is yet to come"? How optimists and pessimists view their past, present, and anticipated future life satisfaction". Personality and individual differences, 47(4), 352-356.

Chambers, J. R., and Windschitl, P. D. (2004). "Biases in social comparative judgments: the role of nonmotivated factors in above-average and comparative-optimism effects", *Psychological Bulletin*, 130, p. 813-838.

Chartrand, T. L., Huber, J., Shiv, B., and Tanner, R. J. (2008). "Nonconscious Goals and Consumer Choice", *Journal of Consumer Research,* 35, p.189-201.

Eyal, T., Liberman, N., Trope, Y., and Walther, E. (2004). "The Pros and Cons of Temporally Near and Distant Action", *Journal of Personality and Social Psychology*, 2004, 86(6), p. 781-795.

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Hypothetical Questions on Subsequent Decision Making", *Journal of Consumer Research,* 28, p.224-238.

Freitas, A. L., Gollwitzer, P. M., and Trope, Y. (2004). "The influence of abstract and concrete mindsets on anticipating and guiding others' self-regulatory efforts", *Journal of Experimental Social Psychology, 40,* p.739 -752.

Goodman, J. K., and Malkoc, S., A. (2012). "Choosing for Here and Now versus There and Later: The Moderating Role of Psychological Distance on Assortment Size Preferences", *Journal of Consumer Research*, 39, p.1-19.

Hirt, E. R., Zillmann, D., Erickson, G. A., & Kennedy, C. (1992). Costs and benefits of allegiance: Changes in fans' self-ascribed competencies after team victory versus defeat. *Journal of personality and social psychology*, *63*(5), 724-737.

Katona, G. (1979). Toward a macro psychology. *American Psychologist*, *34*(2), 118-123.

meta-analytic review", *Psychology and Health*, 17, 436–437.

Laran, J., and Janiszewski, C. (2009). "Behavioral Consistency and Inconsistency in the Resolution of Goal Conflict", *Journal of Consumer Research,* 35, p.967-984.

Laran, J. (2010). "Choosing Your Future: Temporal Distance and the Balance between Self-Control and Indulgence", *Journal of Consumer Research,* 36, p.1002-1015.

Lench, H. C., and Ditto, P. H. (2008). "Automatic optimism: Biased use of base rate information for positive and negative events", *Journal of Experimental Social Psychology*, 44, p. 631-639.

Formatado: Realce

Formatado: Fonte: 11 pt

Formatado: Fonte: 11 pt

Formatado: Fonte: 11 pt, Não verificar ortografia ou gramática

Formatado: Fonte: 11 pt, Não verificar ortografia ou gramática

Formatado: Fonte: 11 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Liberman, N., and Trope, Y. (1998). "The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory", *Journal of Personality and Social Psychology*, 75, p.5–18.

Menon, G., Kyung, E. J., and Agrawal, N. (2009). "Biases in social comparisons: Optimism or pessimism?", *Organizational Behavior and Human Decision Processes*, 108, p. 39-52.

Mueller, E. (1957). Effects of consumer attitudes on purchases. *The American economic review*, *47*(6), 946-965.

NFL.com (2014). "Seahawks crush Broncos for first Super Bowl win", URL http://www.nfl.com/news/story/0ap2000000322949/printable/seahawks-crush-broncos-for-first-super-bowl-win (accessed 16 January 2015).

Peetz, J., Buehler, R., and Wilson, A. (2010). "Planning for the near and distant future: How does temporal distance affect task completion predictions?", *Journal of Experimental Social Psychology*, 46, p. 709-720.

~~Pfeiffer, B. E., Deval, H., Kardes, F. R., Ewing, D. R., Han, X., and Cronley, M. L. (2014). "Effects of construal level on omission detection and multi- attribute evaluation", *Psychology and Marketing*, 31(11), 992-1007.~~

~~Puri, M., and Robinson, D. T. (2007). "Optimism and economic choice", Journal of Financial Economics, 86(1), 71-99.~~

Shah, James Y., Kruglanski, and Arie W. (2003). "When Opportunity Knocks: Bottom-Up Priming of Goals by Means and Its Effects on Self-Regulation", *Journal of Personality and Social Psychology,* 84, p.1109-1122.

Srull, T. K., and Robert S. W. (1979). "Role of Category Accessibility in the Interpretation of Information about Persons: Some Determinants and Implications", *Journal of Personality and Social Psychology,* 37, p. 1660–1672.

Taylor, S. E., & Armor, D. A. (1996). Positive illusions and coping with adversity. *Journal of Ppersonality*, *64*(4), 873-898.

Formatado: Fonte: 11 pt

Formatado: Fonte: Arial

Formatado: Realce

Formatado: Fonte: 11 pt

Formatado: Fonte: 11 pt, Não verificar ortografia ou gramática

Formatado: Fonte: 11 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Tangari, A. H., and Smith, R. J. (2012). "How the temporal framing of energy savings influences consumer product evaluations and choice", *Psychology and Marketing*, *29*(4), 198-208.

~~Taylor, S.E., and Brown, J.D. (1988). Illusion and well-being: a social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210~~

football as 7-1 thrashing in World Cup signals night the music died", URL http://www.telegraph.co.uk/sport/football/world-cup/10955368/Brazil-v-Germany-Biggest-humiliation-in-history-of-Brazilian-football-as-7-1-thrashing-in-World-Cup-signals-night-the-music-died.html (accessed 16 January 2015).

Trope, Y., Liberman, N., and Wakslak, C. (2007). "Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation, and Behavior", *Journal of Consumer Psychology,* 17(2), p.83-95.

Tobin, J. (1959). On the predictive value of consumer intentions and attitudes. *The review of economics and statistics*, 1-11.

Vohs, Kathleen D., Baumeister, Roy F., and Tice, Dianne M. (2008). "Self-Regulation: Goals, Consumption, and Choices", In: Haugtvedt, Curtis P., Herr, Paul M., and Kardes, Frank R. *Handbook of consumer psychology*. Psychology Press Taylor and Francis Group, New York.

Yang, A. X., & Urminsky, O. (2015). The foresight effect: Local optimism motivates consistency and local pessimism motivates variety. *Journal of Consumer Research*, *42*(3), 361-377.

~~Vohs, K. D., and Faber, R. (2007). "Spent Resources: Self-Regulatory Resource Availability Affects Impulse Buying", *Journal of Consumer Research,* 33, p.537–547.~~

Westbrook, R. A. (1980). A rating scale for measuring product/service satisfaction. *The Journal of Marketing*, 68-72.

~~Windschitl, P. D., Kruger, J., and Simms, E. N. (2003). "The influence of egocentrism and focalism on people's optimism in competitions: When what affects us~~

Formatado: Fonte: Arial

Formatado: Fonte: 11 pt

Formatado: Fonte: 11 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

~~equally affects me more", *Journal of Personality and Social Psychology*, 85, p. 389-408.~~

role of construal level and Message Framing in influencing consumer efficacy and conservation Behaviors", *Journal of Marketing Research*, 76, p.472-485.

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

APPENDICES

Table 32. Mediation of Mood

~~CLT~~Temporal Distance	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	Pessimism	-.43	-10.61	3.20	*ns*
	Optimism	.84	-2.22	6.38	*ns*
Present	Pessimism	3.29	-10.20	4.33	*ns*
	Optimism	.93	-4.11	14.36	*ns*

*** p <.05

Table 43. Mediation of Self-Esteem

Temporal Distance~~CLT~~	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	Pessimism	-.74	-15.50	8.08	*ns*
	Optimism	-.21	-7.82	3.12	*ns*
Present	Pessimism	3.39	-10.03	4.91	*ns*
	Optimism	.28	-4.57	10.75	*ns*

*** p <.05

Table 45. Mediation of Self-Confidence

Temporal Distance~~CLT~~	Judgment Bias	Effect	BootLLCI	BootULCI	P
Future	Pessimism	.37	-3.37	9.81	*ns*
	Optimism	1.33	-2.75	14.51	*ns*
Present	Pessimism	.15	-6.44	9.83	*ns*
	Optimism	1.11	-2.89	15.39	*ns*

*** p <.05

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt

TEAM OPTIMISM IN STUDY 3*

Ranking	Team	Points
1	Corinthians	36
2	Grêmio	28
3	Santos	24
4	Flamengo	24
5	Palmeiras	22
6	Sport Recife	21
7	Cruzeiro	21
8	Vasco da Gama	20
9	Fluminense	20
10	Atlético	20
11	Botafogo	19
12	Coritiba	19
13	Chapecoense	18
14	Bahia	16
15	Atlético-PR	16
16	Ponte Preta	15
17	Avaí	13
18	São Paulo	12
19	EC Vitória	12
20	Atlético-GO	8

*** Notes:** Data from July 17th, 2017 – Brazilian League A (Brasileirão Série A 2017).

Top 10 teams were considered in a good season (team optimism) and teams in the bottom 10 places were considered to have a bad season (team pessimism). Please see Study 3 for ANOVA results on participants' level of optimism (vs. pessimism) towards their team and on their chronic level of judgment bias.

Formatado: Fonte: Negrito

Formatado: Espaçamento entre linhas: simples

Formatado: Não verificar ortografia ou gramática

Formatado: Fonte: (Padrão) Arial, 10 pt

Formatado: Fonte: (Padrão) Arial, 10 pt