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ABSTRACT
Accounting information is known as the language of business, even though many researchers do not accept this as true (Bloomfield, 2008). Accounting language can be manipulated to create reality and it has considered the role played by preparers on creating reality via presentation of financial reporting. In addition, this research proposal argues that investors also create reality for themselves depending on their expectations on their investment portfolios and psychological biases on the decision-making process. The Prospect Theory states that investors would be more sensitive to unfavorable information rather than favorable. This research proposal hypothesizes on the concepts of impression management and halo effect to attenuate the impact of unfavorable information on investors’ judgments. Furthermore, we also hypothesize that investors create reality for themselves through self-deception because they find the status quo quite comfortable and want to protect their ego from damage.

Keywords: creating reality, self-deception, impression management, halo effect.

1. Introduction
How can someone create reality? Although this seems like a question directed to science fiction fans, it is a question that should be made to all accountants. Reality can be created, for example, by use of selective silence or of selective obfuscation in both the preparation and analysis of financial reports. Selective silence and selective obfuscation have different meanings and these terms are used only in this introduction to conceptualize them. In the remainder of this research proposal they will be treated as mechanisms used to minimize the impact of unfavorable information, i.e. as mechanisms used to create reality for investors.

Accounting arbitrarily combines, defines, adds and subtracts information from our picture of reality. The question is, however, what is “the full picture”? The answer is “there is no full picture” (Hines, 1988, p. 254). We create the picture as Beaver (1991, p. 132) suggests, “A single number creates the appearance of certainty when it does not exist.”

Investors observe the reality created by preparers via financial reporting. However, such reality is still not enough for them to make a decision. Therefore, investors create their own reality based on the information they received, their expectation and psychological biases. Creation of reality occurs due to the existing environment of uncertainty in the market.

Accountants deal with uncertainty on a daily basis. Investors hope that their investments are profitable and they fear losses. Consequently, favorable and unfavorable information have different weights in the decision-making process. The Prospect Theory states that investors are more sensitive to unfavorable information than to favorable information (KAHNEMAN; TVERSKY, 1979).

Obviously, everyone wants to make the best decisions in business and make money and, why not, massage their own ego. Therefore, preparers and investors are motivated to act in a way that minimizes the negative impact of information. This research proposal argues
that managers use mechanisms to minimize negative impact from unfavorable information presented in their company’s financial reports (CLATWORTHY, M.; JONES, 2003; DECHOW; SLOAN; GODFREY; MATHER; RAMSAY, 2003; JONES, 2010). On the other hand, investors also try to minimize the negative impact of unfavorable information, for example, via self-deception, a kind of motivational dominance of belief-formation (FERNBACH; HAGMAYER; SLOMAN, 2014; LAZAR, 1999; MICHEL; NEWEN, 2010).

Preparers and investors have strong incentives to minimize bad news, and both of them are able to use created reality to influence judgments. In order to simplify the analysis of the decision-making process, from preparation of (un)favorable information to when the decision is made by investors, our framework covers two parts of reality creation: (i) preparers creating reality for investors and (ii) investors creating reality for themselves, as depicted in Figure 1.

Financial reporting is represented in our framework (Figure 1) by a dashed square, and it can be analyzed under a language spotlight, the way communicators and receptors “talk”. Accounting resembles a language; some of its rules are well defined while others are not, similar to the lack of consensus between grammarians on sentence structure, punctuation, and word choices. There are different ways an economical fact should be measured (ANTHONY, 1970).

However, the accounting communication environment is different from the natural language environment. When two people speak, we can assume that they will cooperate in comprehended meaning in order to bring meaning across (GRICE, 1975). In this way, natural language creates cooperative communication because most of the time meaning comes from the context and motivation of the speaker. On the other hand, accounting language can be manipulated to create reality. Therefore, the cooperative communication fails to apply to many accounting settings, and financial reporting could be better understood by elaborating the maxims underlying a non-cooperative principle (BLOOMFIELD, 2008).

Companies have incentives to minimize the impact of unfavorable information and to maximize the impact of favorable information. As a result, selective silence occurs when companies choose what to make evident to investors in voluntary accounting disclosure. In other words, one should remain silent unless silence makes it worse (Verrecchia, 1983). Another maxim is that of selective obfuscation: making favorable information easy to find, and unfavorable information hard to find by using big words and long and complex sentences to describe unfavorable ones (BLOOMFIELD, 2008, 2012; LI, 2008).

The first part of this framework discusses how preparers create reality for investors. There are different ways to shape accounting information so as to make it “creative”. For example, preparers can use discretionary patterns to recognize and measure assets, liabilities, revenues and expenses. However, this research proposal focuses on the use of impression management and halo effect in a Management Report.

Another term often used in accounting literature is “creative accounting”, which has been considered by researchers a mechanism to create selective silence and selective obfuscation. Creative accounting is defined as “using the flexibility in accounting within the regulatory framework to manage the measurement and presentations of the accounts so that they give primacy to the interests of the preparers not the users” (JONES, 2010, p. 6). Self-interest may drive managers to use such accounting flexibility for their own interests.

Impression management occurs when preparers try to emphasize favorable information and obfuscate unfavorable information. Halo effect is defined as the influence of a global evaluation on evaluations of individual attributes, but it has not been investigated in depth in the field of accounting. Some researchers suggest the potential of the halo effect on decision-making in the capital market (COOMBS; HOLLADAY, 2006; HARRISON; FREEMAN, 1999; HIRSHLEIFER, 2001), but none of them conducted an empirical analysis
of such an impact. Based on the research that might derive from this research proposal, we aim to fill such gap.

The concepts of Conflict of Agency (JENSEN; MECKLING, 1976) and Asymmetric Information (AKERLOF, 1970) have also been selected by researchers as a theoretical platform to study how managers can manipulate financial reporting aiming to influence investors’ decisions. However, there is a gap in this analysis. Such studies do not take into consideration a psychological theoretical basis to understand how investors have created reality for themselves. Psychologists have studied many of the variables in which we are interested, in situations very similar to those that characterize the practice of accounting (LIBBY, 1981).

The term “creating reality” was preferred to “creative accounting” as it is a broader term. While the latter is restricted to the preparation of financial reports, the formal covers not only preparers’ activities, but also investors’ activities. Investors also create reality for themselves when they choose which information to believe in, by denying bad news or being self-deceivers by seeking for confirmatory information. Behavioral Accounting is concerned about knowing how cognition, intuition and judgment can change decision-making. The main question for Behavioral Accounting Research (BAR) is to identify that such behavioral issues are predictable and can change the entire decision-making structure.

Investors are given incentives to minimize the discomfort caused by unfavorable information, depending on their investment position. Moreover, in order to maintain the status quo and protect their egos from damage, investors will deny the unfavorable information and deceive themselves as to the information received. There are hidden traps in the decision-making process, which should be considered because sometimes the fault lies not in the process itself but rather in the mind of the decision maker. The mode in which the human brain works may sabotage our decisions. For example, our brain can be tricked by anchoring traps, status quo traps, sunk-cost traps, framing traps, etc. (Hammond et al., 1998).

Figure 1 – Theoretical framework of the thesis and propositions.

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<th>PREPARERS CREATING REALITY FOR INVESTORS</th>
<th>INVESTORS CREATING REALITY FOR THEMSELVES</th>
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* Dependent Variable (except to test H6). ** Dependent Variable. *** (a) Perceived conservatism and (b) Natural optimism
Investors create reality for themselves depending on their own decision-making traps (Hammond et al., 1998). Considering the status quo and the sunk-cost theoretical approaches, it can be argued that the investment position is a great moderator for investors to acquire, believe in and scrutinize accounting information. We expect that the negative impact of unfavorable information has a different weight depending on the investment position.

Potential/effective or short/long investors will behave differently when they receive (un)favorable information. Status quo and sunk-cost biases make investors scrutinize more unfavorable information than favorable information (HALES; KUANG; VENKATARAMAN, 2011; THAYER, 2011). We expect that the investment position moderates the relationship between information and information process. There is nothing novel about it and research has shown such results. However, none of this research investigated what causes this behavior. We also intend to fills this gap on the research that might derive from this research proposal, because in our view, depending on the investment position, the investor deceives himself (self-deception) as regards to unfavorable information. Self-deception explains why investors make bad decisions even when they have available information to help them.

Self-deception can be considered a special kind of motivational dominance in belief-formation. Self-deception is typically induced by the influence that desires and emotions exert upon our cognitive faculties, and thereby upon the process of belief formation (MICHEL; NEWEN, 2010; MIJOVIĆ-PRELEC; PRELEC, 2010). In our view, self-deception is a mediator between (un)favorable information and information process. When an unfavorable information is presented, investors are motivated to better scrutinize such information, but depending on their investment position, they will deny it to maintain the status quo. Conservatism is examined as a control variable (perceived conservatism) in our framework because investors can consider that the accounting information is naturally conservative, and therefore they are able to discount the effect of unfavorable information in their analysis. In addition, investors can be naturally optimistic (naturally conservative). Consequently, natural optimism is also examined as a control variable, because it can influence investors’ judgments.

This research proposal contributes to both accounting and psychology literature on the reality created by companies via presentation of financial reporting, as well as the influence of investors’ biases on information acquisition and evaluation of “the full picture”. Although significant advances have been made in the understanding of how investors react to (un)favorable information, very little further attention appears to have been given to the halo effect and self-deception in this process. It is worth mentioning that this research proposal aims to investigate accounting information only from the investors’ perspective, although it is possible to investigate it from the preparer or other stakeholders’ perspectives.

2. Background and Hypotheses
2.1 Favorable or Unfavorable Accounting Information (Good News or Bad News)

Psychological and organizational behavior research have shown that people respond differentially to positive and negative stimuli, and negative events tend to generate stronger behavioral responses than positive events (CACIOPPO; GARDNER; BERNTSON, 1997; ROZIN; ROYZMAN, 2001). People also tend to pay more attention to and place more weight on negative information (BARSADE, 2002). This is due to both risk and uncertainty being present in significant choices, and people, in general, do not appreciate risk. Negative event is defined as one that has the potential or actual ability to create adverse outcomes for the individual, regardless of the fact that these events have or not occurred (TAYLOR, 1991).

Kahneman & Tversky (1979) wrote an article called “Prospect Theory: An Analysis of Decision under Risk” that describes several classes of choice problems in which preferences
systemically violate the axioms of expected utility theory and propose an alternative account of choice under risk. The authors call it the reflect effect: a loss of nine hundred dollars has a subjective value greater than 90% to lose one thousand dollars. A certain loss is aversive and it tends to drive us at risk. In general, people are favorable at risk when all other options are worse.

Kahneman (2011) claims that there are blind spots in his theory. First, human beings in prospect theory are guided by short-term time perspective impacts of emotion, not by long-term perspective. Moreover, prospective theory does not deal with disappointment and regret. These emotions are real and decisions makers anticipate them when they make their choices.

We would say loss aversion has two motivations. First, we are driven by avoidance of losses more strongly than gains. Second, a future target can also drive us. In this way, not reaching a target is a loss, while overcoming a target is a gain. Considering loss aversion, not reaching a target is much more powerful than expectations to overcoming it (HEAT; LARRICK; WU, 1999). Emett (2013) supports that when a firm performs badly, the investor will believe in an optimist disclosure rather than in a realistic one. Conversely, the investor will prefer a realistic disclosure to an optimist one.

Loss aversion is a powerful conservatism force that promotes minimal changes of status quo in companies and people. Such conservatism is what makes us avoid moving to another city, changing our jobs, etc. Hammond et al. (1998) explains that decision-makers display a strong bias toward alternatives that perpetuate the status quo, for example, the first automobiles (called horseless carriages) looked very much like the buggies they replaced. The authors illustrate the above-mentioned examples by saying that people who inherit shares of stock that they would never have bought themselves, surprisingly, would not sell them. Their explanation is that people find the status quo comfortable, and they avoid changes that would upset it. The source of the status quo trap lies deep within our psyches, in our desire to protect our egos from damages.

Samuelson & Zeckhauser (1988) found that, in general, individuals display a bias toward sticking with status quo because it is an illusion of control. Thus, we argue that loss aversion, the need for status quo, and the fear of not reaching targets will make people aversive to bad news in accounting information.

**Hypothesis 1**: unfavorable information is more intensively scrutinized than favorable information.

2.2 Impression Management

According to Leary & Kowalski (1990) people regularly monitor their impact on others and try to gauge the impressions other people form of them simply to ensure that their public persona is intact. On the other hand, under certain circumstances, people become motivated to control the way others see them; such motivation is a key to apply impression management.

Impression management has been treated by researchers as a mechanism used by managers to manipulate impression that stakeholders have about their companies. According to Jones (2010), impression management involves managers influencing the financial reporting in their favor. This does not imply in a fraud and it is normally associated with the presentational aspects of reporting such as accounting narratives, graphs and photographs.

The Management Report could be used by managers to present news selectively, skew the accounting narratives or use graphs to favorable aspects and downplay unfavorable results. Therefore, that report is not audited allowing preparers to use freely different tones, scales on graphs, approaches to present good or bad news. If we think in terms of first dates, for example, it is common to picture one trying to impress the other by his or her choice of
cool clothes, good fragrances, and other moves of the kind. Well, don’t we all use impression management strategies somehow? Why wouldn’t companies use it?

Jones (2010) explains that accounting narratives, graphs and photographs can be used in impression management. There are many researchers who have concentrated on graph distortion analyzes (Beattie & Jones, 1999, 2000; Cho, Michelon, & Patten, 2012; Tang, Hess, Valacich, & Sweeney, 2014) or photographs (BERNARDI; BEAN; WEIPPERT, 2002). In accounting narratives, our focus, managers often: (i) stress the positive (good news), downplay the negative (bad news); (ii) baffle the readers conveying good news into more easy-to-read way than bad news; (iii) report strategies differently; (iv) attribute good news to themselves, but bad news to the environment.

Clatworthy & Jones (2003, 2006) investigated differences in reporting between good and bad news and they found a tendency in unprofitable companies to overlook their strategic financial performance indicators in discretionary reports and instead distracted the readers’ attention to future planning. Deegan & Gordon (1996) found that Australian companies used, in average, six times more positive words than negative ones. Aerts (1994) shows that positive performance was much easier to understand than negative performance in Belgian annual reports. Nelson & Rupar (2015) evidence that investors' risk judgments are affected by the numerical format used to describe outcomes within accounting disclosures. Investors assess higher risk in response to dollar-formatted disclosures than to equivalent percentage-formatted disclosures.

Tan, Ying Wang, & Zhou (2014) examined how the effect of language sentiment differs with readability and investor sophistication level. Their findings show that language sentiment influence investors’ judgments when readability is low, but not when readability is high. Hales et al. (2011) investigate the effect of vivid (pallid) language on investor judgments; they found that vivid language significantly influences the judgment of investor who hold contrarian positions (short or long investors). Huang et al. (2014) investigate whether and when firms manage the tone of words in earnings press releases, and how investors react to tone management; overall, the evidence is consistent with managers using strategic tone management to mislead investors about firm’s outcomes.

Our purpose is to analyze how investors react to the impression management made by preparers. Firstly, by facilitating the language used so to make good news better understood and by making it harder for the bad news. Secondly, by showing more pieces of information about good news than bad news. Thirdly, by attributing good news to the company and bad news to the environment.

**Hypothesis 2:** Impression management minimizes the impact of unfavorable information, and then investors spend more time to scrutinize neutral information than manipulated information.

### 2.3 Halo Effect

We can all recall the old saying “You never get a second chance to make a good first impression”. Well, when we like someone, we often assume that the person’s attributes about which we know little are also favorable, and we tend to believe other attributes we do not know are favorable too.

This effect is one of the oldest and most widely known in psychology phenomena, but little is known about its nature, according to Thorndike (1920), who named the phenomena. Asch (1946) was one of the first who studied how the impression of someone’s character forms itself in us, after we look at such person for the first time. The author analyzed the forming of impression more carefully by making several number of experiments using the halo effect concept. “Halo effect is defined as the influence of a global evaluation on
evaluations of individual attributes of a person, but this definition is imprecise with respect to
the strength and character of the influence” (Nisbett & Wilson, 1977, p. 250).

Asch (1946) analyzed if the direction in which characteristics are presented can change impressions. In Asch’s sixth experiment, he questions if it is possible to change impression without changing a particular characteristic. The author presented to two different groups of subjects characteristics of an individual. The two series of characteristics presented to subjects are identical, differing only in the order of succession of the latter. Series A opens with qualities of high merit and ends with dubious quality (e.g.: intelligent – industrious – impulsive – critical – stubborn – envious). This order is reversed in Series B. After presented the characteristics, the author instructed the groups to comment about the individual. The following series of psychological traits are read, each to a different group.

Results from that experiment showed that subjects of the group A reported the individual as much more favorable than the second one (group B). Traits placed in the beginning of the sentence change the meaning of traits placed in the end. Furthermore, halo effect works as an “illuminative” to ambiguity, for example, considering that adjective stubborn (headstrong/determined) is ambiguous, it will be interpreted to be coherent into context. The sequence of presentation matters, because halo effect will improve weight of first impressions to the point that subsequent information is discarded in grand part. In addition, our system 2 is lazy and we do not need more information than necessary (Kahneman, 2011).

Nisbett & Wilson (1977) found that global evaluations of a person could induce altered evaluations of the person’s attributes, even when there is sufficient information to allow for independent assessments of them. Some findings from researches using the halo effect are shown as follows.

Sine, Shane, & Gregorio (2003) studied halo effect in technology licensing. Their findings show that institutional prestige increases a university’s licensing rate over and above the rate that is explained by the university’s past licensing performance. Chernev & Blair (2015) provide evidence that a firm’s pro-social activities can have a significant impact not only on consumers’ goodwill toward the firm’s brand, but also on their beliefs about the firm’s products. O’Donnell & Schultz Jr (2005) suggest that the halo effect generated during strategic assessment influences judgment by altering auditor tolerance for inconsistent fluctuations.

We suggest that the halo effect can be used by preparers of financial reportings to create a better reality to information’s users. In this way, we argue that the halo effect can be considered a way to impression management.

Moreover, the halo effect is seen in many cases as the first impression that one has over the other, and how this first impression, or global impression, shapes impression about other characteristics. So, there is a weakness in our initial analysis, as when one considers, for example, investors in an active market, it must be considered that companies are already known, then the first impression is not formed by the current accounting information.

On the other hand, some marketing research has found that the halo effect exists in relation to a new product even when the company is already known for a long time on the market (CHERNEV; BLAIR, 2015; COOMBS; HOLLADAY, 2006). Like this, we believe that investors also have impressions of the current situation of the company, regardless if companies are already known. We mean, the halo effect has also an impact on current financial information.

Halo effect is a quite broad concept, but on this research proposal we conceive it are the phenomena by presenting favorable (unfavorable) characteristics before unfavorable (favorable) ones. It is quite plausible to imagine halo effect as a type of impression management, because somehow, positive information is being stressed and negative one is downplayed. However, for the purpose of this work, halo effect will be a variable concerning
the presentation order, while the way accounting narratives is shaped will be treated as an impression management construct. Halo effect depends on the context where features are presented, for example, always placing good news at the beginning and bad news at the end. Our intention is to investigate how investor perceive the information from preparers. Consequently, how halo effect, together with impression management, moderate relationship between (un)favorable information and information process.

**Hypothesis 3a:** Halo effect decreases the impact of unfavorable information on scrutinizing and analyzing processes.

**Hypothesis 3b:** Double interactions between halo effect and impression management decreases further the impact of unfavorable information on scrutinizing and analyzing processes.

### 2.4 Investment Position

Under investment position construct in our theoretical model, there are two important aspects: sunk-cost bias and confirming-evidence bias. Firstly, sunk-cost bias is to make choices in a way that justifies past choices. That sunk-cost are irrelevant to the present decision, nevertheless they prey on our minds, leading us to make inappropriate decisions (HAMMOND; KEENEY; RAIFFA, 1998).

The sunk-cost bias is the “tendency to continue an endeavor once an investment in money, effort, or time has been made” (Arkes & Blumer, 1985, p. 124). For example, it can be unexpectedly difficult to ignore bad advice that one has paid for (GINO, 2008), or to sell a stock that has fallen in value (ODEAN, 1998), or to delete carefully written text from a manuscript (HAFENBRACK; KINIAS; BARSADÉ, 2014). Explanation for the sunk-cost bias include loss aversion, (KAHNEMAN; TVERSKY, 1979), and the desire not to appear wasteful (ARKES; BLUMER, 1985).

We can easily admit the sunk-cost bias in investment, management or accounting tasks, for example, or in a small company that have been unprofitable for a long time although its owners insist on keeping the business running. In accounting tasks, we can imagine situations when there is necessity to recognize impairment losses on assets but managers avoid doing so.

Effective investors are unlikely to be impartial in their acquisition of information regarding a currently held position after receiving information that casts doubt on the profitability of the position, because individuals prefer their actions to match their beliefs. Like this, information received subsequent to taking a position influences whether this internal balance is maintained and the investor may selectively seek additional information supporting the position to regain that balance (THAYER, 2011).

One of the most important findings in this literature is that attention is not uniformly applied to all pieces of information. Instead, people exhibit “motivated sensitivity” to information; that is, people become sensitive to and tend to scrutinize, information that is inconsistent with their directional preferences; but tend to accept information that is consistent with their preferences with little scrutiny. Research in accounting and finance has provided clear evidence that positions investors and traders hold cause them to be motivated reasoners – even though those same positions also create incentives for evaluating information in an unbiased manner. Such directional preferences influence not only the decisions people make, but also how information gets processed (DITTO; LOPEZ, 1992).

Hammond et al. (1998) states that people tend to decide what they want to do before they figure out why they want to do it, subconsciously. In addition, people have inclination to be more engaged by things they like than things they dislike.
Hypothesis 4a: Effective investors spend more time scrutinizing unfavorable information than favorable information.

Hypothesis 4b: Potential investors spend more time scrutinizing favorable information than unfavorable information.

Hypothesis 4c: Effective investors scrutinize unfavorable information much more than potential investors. On the other hand, there is no significant difference between them when information is favorable.

Researches have used investors who hold contrarian positions as investment position variable, i.e., short investors in a bull market and long investors in a bear market. Moreover, in disagreeing, long investors expect earnings to be relatively high and short investors expect earnings to be relatively low. Participants with short positions will more deeply process the information in the news flashes than will participants with long positions, causing their judgments to be more sensitive to the subtleties of the language chosen to express the news (HALES; KUANG; VENKATARAMAN, 2011).

2.5. Self-Deception

Accounting creates reality (HINES, 1988). Such assertive is easily comprehended in a situation where a company prepares information to external shareholders, because they have made decisions considering financial reporting in a non-cooperative way. Information comes from managers to investors, and investors are not able to get more information for clarification and more knowledge.

By considering that favorable and unfavorable information have impact on expected future, that people have aversion to losses, and also that people are afraid of not reaching targets, we argue that some people will avoid bad news in accounting information. The question, then, is ‘Depending on the situation, could an investor use worse information on purpose? Would he or she refuse information or deny bad news?’

A manager is able to have information about his company whenever s/he needs it. In order to make decisions, there is rational belief that s/he will try to clarify the information in the best possible way by using a cooperative language. However, we argue that sometimes managers ignore certain pieces of information or deny them, mainly bad news. For example, we are aware of situations in which politicians have denied breaking economy bad news, or even of small family business operating in losses though their owners keep on going with the business.

Sloman, Fernbach, & Hagmayer (2010) call that phenomena self-deception, that is, people tendency to deceive themselves about the diagnostic value of their own actions. Self-deception has always been a difficult and provocative issue for any theory of human consciousness and so has produced a great amount of literature in both psychology and philosophy fields (Clegg & Moissinac, 2005).

Self-deception has been analyzed in two different ways: intentionalism and motivated irrationality. The first considers self-deceivers as those who want to believe in something even though that is not necessarily true. Davidson (1985) claims that self-deception is not an accidental process that the agent would be the victim, but, rather, a process that requires an explicit and deliberate intention to believe that he knows or suspects to have been false, i.e. the one who deceives himself must have the intent to deceive. The akrates agent is one who believes he has the best reasons for doing A and ends however doing B intentionally, that problem is called weakness of will. Similarly, the agents who deceive themselves (self-deceiver) have the best reasons to believe in p, however, they are persuaded by non-p.
Intentionalism to anchor on believing in a positive thinking can be helpful to achieve a goal, because confidence can be improved when the individual is optimistic. People prescribe optimism when they believe it has opportunity to improve the chance of success. People believed optimism is faith that leads to achievement, that “it is right to be wrong about the future” (Tenney, Logg, & Moore, 2015).

Natural optimism in financial reporting provide an alternative view about the role of preparers on financial reporting, because optimism can be thought as the natural state of mind for most people and therefore preparers can be likely to exhibit naturally occurring optimism. Natural optimism would be an intrinsic characteristic of people, and it is more likely to have an impact on financial reporting (CAPPS; KOONCE; PETRONI, 2016).

However, intentionalism faces several paradoxes that threat its viability. For example, is it psychologically possible to hold contradictory beliefs simultaneously? How can the agent fall into his own trap known from the beginning of its existence? How can we comprehend that someone would choose consciously a less beneficial option? How can we understand that someone could adhere to their own will, in full knowledge of the facts, a manifestly false belief?

Motivational conception is an alternative approach to self-deception. According to Mele (2000), self-deception does not derive from a deliberate intention, but results from motivated irrationality phenomenon, which is the influence that our desires and emotions are likely to have on the process of formation of belief. In this way, irrational agent’s desires and emotions are not purported reasons in order to adopt certain criteria intentionality, but as simply unthinking causes of illusory beliefs of the subject. Tversky & Kahneman (1974) claim that emotions deform or “skew” (bias) our reasoning and our beliefs and they are able to affect cognitive faculties responsible for the judgment formation process. For example, when someone wishes that his or her philosophic beliefs were the truth, they could overlook data that go against their expectation.

Ordinary cases of self-deception and akrasia derive from the phenomenon of motivated irrationality. Self-deception is typically induced by the influence that desires and emotions exert upon our cognitive faculties, and thereby upon the process of belief formation (Correia, 2009).

People distribute beliefs over two possible causal paths to an action, one where the action is freely chosen and one where it is due to factors outside of conscious control. Self-deceivers take advantage of uncertainty about the influence of each path on their behavior, and shift weight between them in a self-serving way. This allows them to change their behavior to provide positive evidence and deny doing so, enabling diagnostic inference to a desired trait (Fernbach, Hagmayer, & Sloman, 2014).

Fernbach, Hagmayer, & Sloman (2014) analyzed effort denial in self-deception in two experiments. In experiment one, women were told pain tolerance was a good (bad) signal about future skin heal, so they changed their pain tolerance to provide positive evidence, but judgment of effort claimed the opposite. In experiment two, they apply a picture task where the search performance was purportedly linked to self-control.

The “effort denial” above suggest that participants’ mental representation of their behavior was dissociated from their actual behavior, facilitating self-deception. People change their behavior to provide positive evidence for a desirable trait. Fernbach, Hagmayer, & Sloman (2014) claim that self-deception does not involve a contradiction among beliefs concerning the causes of behavior, but between a belief and an action.

According to Fernbach et al. (2014) self-deception is a contradiction between belief and action. We claim that other actions could be motivated by self-deception, for example, acquisition or not acquisition of information based on individual’s preference or desire;
tendency to scrutinize information that is inconsistent with their directional preferences; and, denial of bad news.

Self-deception could be measured by the denial of the denial. That is, individuals are motivated to deny information that contradicts their initial desires, but when asked about it, they deny that negative information has been set aside as contrary to what they would like.

Individuals do not process all of the information available to them with the same level of cognitive effort. Individuals often accept information that is consistent with their preferences at “face value” without in-depth thinking. Hales (2007) finds that investors are motivated to agree unthinkingly with information suggesting they might make money on their investment, but disagree with information that suggest they might lose money.

Our supposition is that people will deny negative information about the company depending on their cognitive characteristics, even when they have sufficient financial information to make their decisions. People will try self-deception when there are negative events, because emotion will generate irrational reaction on decision-making process.

We propose to analyze self-deception as a way to deny information, considering a gap of Prospect Theory to deal with disappointment. In other words, self-deception is used by people to create realities for themselves.

Thus, we suppose self-deception mediates the relationship between (un)favorable information. Moreover, we suppose that such mediation is higher when there is unfavorable information and investment position is effective investor than positive information and probable investor. Whether we considerate short/long investment position, the mediation is higher depending on kind of information expected or desired by investors. Self-deception is the reason why people do not consider some information that opposes to their desire, even when such information is available and when it is better analyzed than good information.

**Hypothesis 5:** Self-deception mediates the relationship between unfavorable information and information process, moderated by investment position.

Finally, our last hypothesis consider how reality created influences investors’ decisions. We will ask subjects to indicate, after having received information, which is more likely: to invest or maintain investment. Maybe, task will be related with rewards to subjects with the intent to make the task as real as possible. Our hypothesis is that decision will be manipulated by how information process occurred and by how subjects were self-deceivers. Thus, we expect that subjects maintain status quo in their decisions.

**Hypothesis 6:** Investors will maintain the status quo in their decisions.

3. Methodological Proposal

We investigate how investors react to accounting information in a broad perspective. First, how they react to the reality created by preparers of financial reports. Second, how they react to their own motivations to create their own reality. These two perspectives are investigated separately in two different experiments. For this we will establish causal chains based on Spencer, Zanna, & Fong's (2005) argument that experiments which claim that mediational analyses are overused and sometimes improperly held as necessary for a good social psychology paper.

The experiment research will make it possible to enhance internal validity via randomization to reduce the problem of endogeneity (Libby, Bloomfield, & Nelson, 2002).
As we will focus on external validity, we plan to use real accounting information in the experiments so as to create tasks that are as real as possible.

We will work with nonprofessional investors, but to a minimal extent participants might have knowledge of the fundamental concepts of financial accounting and analysis of financial reports, and experience (or willing to invest) in the stock exchange market. Target participants are nonprofessional investors in the database of the Brazilian Comissão de Valores Mobiliários (CVM) (Securities and Exchange Comission). Other possibilities include using MBA students as subjects and using Amazon Mechanical Turk.

3.1. Experiment 1 – Impression Management and Halo Effect

Participants will be required to analyze a hypothetical public company’s financial reports and answer their propensity to invest in such company’s stock.

**Design:** We will employ a 2x2 between-participants design that manipulates (1) the impression management condition and (2) the halo effect condition.

**Halo effect manipulation:** Two lists of characteristics pertaining to one company will be presented to two different groups (of subjects). The lists are identical, but the order of characteristics are different in each list. Series A opens with qualities of high merit and ends with dubious quality. This order is reversed in Series B. After the characteristics are presented, subjects comment about their propensity to invest in the company.

**Impression management manipulation:** Using different impression management techniques based on Jones’ (2011) framework, such as (i) stress the positive (good news), downplay the negative (bad news); (ii) baffle the readers conveying good news in a more easy-to-read way than bad news; (iii) report strategies differently; (iv) attribute good news to themselves but bad news to the environment.

**Perceived conservatism:** Perceived conservatism is influenced by investors’ knowledge about accounting principles and it influences how investors scrutinize the information. Whether investors think that accounting information is mandatorily prudent, the unfavorable information can be not so impactful. Subjects will be asked questions about accounting conservatism in order to identify their general knowledge about it. In addition, they will be questioned just how conservative the pieces of information in the experiment were. The Likert scale will be used to obtain the answers.

**Natural optimism:** Optimism is the natural state of mind for most people. Some individuals have an innate tendency to expect that good things will happen to them in the future. Such individuals have high levels of natural optimism (CAPP; KOONCE; PETRONI, 2016; HALES; WANG; WILLIAMSON, 2015). The most prominent example of a notion embedded in accounting standards to curb optimism is conservatism. Therefore, we can argue that when individuals are not optimistic, they are intrinsically conservative. We will use a natural optimism scale as a proxy to investigate how investors’ natural optimism (or intrinsic conservative) affects judgments. To measure natural optimism, we will use the Life Orientation Test-Revised (LOT-R) questionnaire developed by Scheier & Carver (1985) and later modified by Scheier, Carver, & Bridges (1994). The LOT-R instrument has been extensively used in psychology literature to capture an individual’s natural optimism (NES; SEGERSTROM, 2006). LOT-R scale was used in Accounting field by Hales et al. (2015).

3.2. Experiment 2 – Investment Position and Self-Deception

Participants will be required to analyze a hypothetical public company’s financial reports and answer their propensity to invest on such a company’s stock.

**Design:** We will employ a 2x2 between-participants design that manipulates (1) the participant’s investments position and (2) unfavorable or favorable information received. We plan to use a web-based experiment where subjects will be randomized to different
manipulation groups. The dependent variable would be the time that subjects spend to scrutinize information and which links subjects clicked on and read to acquire information. **Self-deception:** Such variable will be self-measured by subjects using post-task questions about how much and which information subjects consider important, and mainly how subjects deny effort to scrutinize information. Our variable will be based on Fernbach et al. (2014).

**REFERENCES**


DANIEL KAHNEMAN. *Thinking, fast and slow*. New York: [s.n.],


