

**Applying Priming Manipulations during Ratings to Relate
Individualism and Collectivism with Discomfort towards
Performance Appraisal and Leniency**

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Applying Priming Manipulations during Ratings to Relate Individualism and Collectivism with Discomfort towards Performance Appraisal and Leniency

Jorge Antonio Olivera Aravena

Abstract

The issue under scrutiny in this study is to answer whether priming manipulations can influence performance appraisal in terms of discomfort towards the appraisal process and leniency. We viewed priming manipulations as a potential palliative for rating elevation as well as a tool for research in performance appraisal. Following previous studies, 278 participants were primed with collectivism or individualism to alter interdependent and independent self-construals. We hypothesized that, in comparison to participants primed with individualism, participants primed with collectivism would: (1) Display more discomfort towards the rating phase of the appraisal process, and (2) provide higher ratings. Results showed significant difference neither in means of discomfort towards the rating phase of the appraisal process nor in rating elevation. We discuss practical implications concerning the use of priming in the appraisal process. Further analysis suggested that predominantly interdependent raters feel less discomfort towards rating but are more prone to elevate ratings as compared to predominantly independent raters.

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To my wife Ilse

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Glossary

| <i>Term</i> | <i>Definition</i> |
|---|--|
| Automatic cognitive effort | <i>n.</i> A category of cognitive processing which is unintentional, involuntary and occurs outside awareness. <i>aka.</i> Unconscious cognitive effort |
| Cognitive function | <i>n.</i> Mental activities that handle and/or process information. |
| Collectivism | <i>n.</i> An extreme in the individualism-collectivism continuum. In highly collectivistic societies, people see themselves as attached to others and pursue collective goals. Collectivistic, <i>adj.</i> |
| Controlled cognitive effort | <i>n.</i> A category of cognitive processing which is intentional, voluntary and occurs inside awareness. <i>aka.</i> Conscious cognitive effort |
| Discomfort towards rating | <i>n.</i> Sub-set of discomfort towards the appraisal process in which feelings of adversity, resistance, and fear that focus on the rating phase of the appraisal. |
| Discomfort towards the appraisal process | <i>n.</i> Feelings of adversity, resistance, and fear towards the different activities of the performance appraisal process. |
| Independence | <i>n.</i> Psychological extension of cultural individualism thru which the individual see himself/herself as fundamentally distinct from others. Interdependent, <i>adj.</i> <i>aka.</i> Allocentrism |
| Individualism | <i>n.</i> An extreme in the individualism-collectivism continuum. In highly individualistic societies, people see themselves as separated from others and pursue personal goals. Individualistic, <i>adj.</i> |
| Interdependence | <i>n.</i> Psychological extension of cultural collectivism thru which the individual see himself/herself as fundamentally attached to others. Interdependent, <i>adj.</i> <i>aka.</i> Idocentrism |
| Leniency | <i>n.</i> A type of bias that refers to the tendency to provide mild performance appraisals. Lenient, <i>adj.</i> |
| Performance appraisal | <i>n.</i> A variety of activities primarily conducted to assess and develop employees' performance. |

| | |
|--------------------------------------|--|
| | <p><i>abbr.</i> PA</p> <p><i>aka.</i> Performance evaluation</p> |
| Performance appraisal process | <i>n.</i> Process encompassing performance appraisal activities. The phases of such process are: Observation, storage, integration, rating, feedback. |
| Performance appraisal system | <i>n.</i> The systemic application of performance appraisal in organizations. A performance appraisal system englobes features such as purpose, content, periodicity, and performance standards. |
| Priming | <p><i>n.</i> The automatic preparation of a future unintentional or effortless response adjusted according to a preceding stimulus.</p> <p>Prime, <i>v.</i>; to prime, <i>inf.</i></p> |
| Priming activation | <i>n.</i> The first component of priming which involves the automatic activation of a schema according to a stimulus. |
| Priming effect | <i>n.</i> The second component of priming which involves an unintentional or effortless response ready to appear given certain circumstances. |
| Priming manipulation | <i>n.</i> Simple tasks, such as reading passages, listening audios, or seeing images, that are designed to induce behaviors or attitudes in participants. |
| Ratee | <i>n.</i> An employee whose performance is being evaluated. |
| Rater | <p><i>n.</i> Agent in charge of observing and rating the performance of an employee.</p> <p><i>aka.</i> Evaluator</p> |
| Raters' cognitive process | <i>n.</i> The sequence of cognitive functions used by raters to perform their tasks. These functions are observing, encoding, storing, retrieving, integrating, and rating. |
| Rating elevation | <p><i>n.</i> A kind of leniency in which ratings are purposely overestimated.</p> <p><i>aka.</i> Rating inflation</p> |
| Schemas | <i>n.</i> Sets of pre-conceived notions embedded one within another and representing different levels of abstraction. |
| Self-construals | <i>n.</i> Psychological extension of cultural individualism-collectivism that reflects how individuals describe themselves in relation to others. There are two self-construals: Independence and interdependence. |

I. Introduction

Nowadays firms recognize that human resource management (HRM) practices, if properly employed, can deliver what is necessary to increase productivity, adaptability and financial outcomes (Jiang, Lepak, Jia, & Baer, 2012). Some goals of HRM, those of securing and increasing personnel performance, are accomplished through performance appraisal (PA) systems, which involve a variety of processes conducted to assess and develop employees' performance (Fletcher & Perry, 2001).

In the last 40 years, the popularity of PA has grown with impetus. Back in 2000, Smith, Harrington, and Houghton reported that 90% of Top 1000 Fortune firms adopted appraisal system, and all the Top 40 Fortune firms did the same in 2015¹. These companies currently invest considerable amounts of resources to design and implement PA systems, which englobe elements such as content, periodicity, and standards (Fletcher, 2001; Fletcher & Perry, 2001). Despite the configuration of the system, a complete appraisal process entails a *rater* detecting, recording, and judging *ratee*' performance, and subsequently providing feedback or proposing corrective actions (Harris, 1994; Murphy & Cleveland, 1995).

Firms implement PA systems primarily for evaluative and developmental purposes, but usages extend to administrative decisions (Fletcher & Perry, 2001; Kane, Bernardin, Villanova, & Peyrefitte, 1995). The appraisal process exposes who merit rewards, who need specific training, or who deserve promotions (Bernardin & Villanova, 2005). What is more, the appraisal constitutes a defense against legal actions (Kane et al., 1995). Therefore, firms expect their PA systems to deliver valid and accurate information.

The success of PA systems relies on raters heavily. Unfortunately, rates' job is not easy. In the first place, they face diverse social and cultural pressures restraining their energy (see Murphy & Cleveland, 1995). Even in an utopic scenario free of these obstacles, raters still need to rely on cognitive efforts prone to introduce biases all along the appraisal process (e.g., perception, interpretation, and memory; DeNisi, 1996). In consequence, endless issues such as *halo error*, *recency bias*, and *leniency/stringency* pose a serious threat to the overall effectiveness of the

¹ Information obtained thru a personal revision of the Fortune list.

appraisal (Bernardin, Cooke, & Villanova, 2000). Leniency, for instance, reduces the validity of the appraisal process, lessens firm's capacity to take appropriate administrative decisions, and harms employees' attitudes towards the appraisal system (Bernardin & Villanova, 2005; Miceli, Jung, Near, & Greenberger, 1991). Kane et al. (1995) report that leniency can be as harsh as to force IBM, Pratt Whitney, and Grumman to substitute their rating procedures entirely. In theory, it is possible to reduce leniency to the extent to which raters feel *discomfort towards the appraisal process*, an amalgam of feelings of reticence and adversity towards such activities (Villanova, Bernardin, Dahmus, & Sims, 1993).

Perspectives in Performance Appraisal

Different viewpoints evolved as endeavors to solve the numerous biases afflicting PA. A traditional view depicts the appraisal process as a measurement tool. Research under this view emphasizes topics such as structure and design of the appraisal system (Fletcher, 2001; Murphy & Cleveland, 1995). Worth mentioning numerous studies testing rating scale instruments (e.g., Behaviorally Anchored Rating Scale, Mixed-Standard, Force-Choice, etc.; see Bernardin & Beatty, 1984).

The measurement perspective laid the foundations of research on PA, yet gaps in literature encouraged new angles of study. On one hand, it disregards PA as a process embodied in buoyant settings. As a response, scholars started inspecting the appraisal from a socio-psychological perspective², which emphasizes human and contextual factors (Murphy & Cleveland, 1995). Some scholars have investigated, for instance, raters'/ratees' attitudes towards PA systems (e.g., Allen & Rush, 1998; Pearce & Porter, 1986), and others have studied perceived justice and social interactions in the appraisal process (e.g., Pichler, 2012; Taylor, Tracy, Renard, Harrison, & Carroll, 2016). This perspective, in particular, unveiled emotional and social pressures affecting raters' jobs (Longenecker, Sims, & Gioia, 1987; Murphy & Cleveland, 1995).

The socio-psychological perspective has also paid attention to cultural differences interfering in the appraisal process. There are reasons to believe, for instance, that individualistic and

² We are aware that cognition is a major area in psychology; nonetheless, we prefer to distinguish them since the former emphasises raters' cognitive processes whereas the later emphasises social and contextual factors affecting both, raters and ratees.

collectivistic nations have singular approaches to PA (Chiang & Birtch, 2010; Fletcher, 2001; Murphy & Cleveland, 1995; Snape, Thompson, Yan, & Redman, 1998). Scholars propose that individualistic nations accentuate individual performance but in collectivistic nations, the appraisal pays equal care to both personal and group performance (Fletcher & Perry, 2001; Milliman, Taylor, & Czaplewski, 2002). Besides, interpersonal interactions are a crucial facet of performance in collectivistic nations (Elenkov, 1998; Fletcher, 2001). Despite its relevance, only a few studies have offered empirical evidence linking cultural factors and PA (e.g., Chiang & Birtch, 2010; Saffie-Robertson & Brutus, 2013; Snape et al., 1998).

The measurement perspective, on the other hand, overemphasizes the rating phase of the appraisal process, disregarding other pertinent aspects such as observing and interpreting information about employees' performance (DeNisi, 1996). As a response, scholars started seeing the appraisal as a decision-making procedure in which raters' cognition is vital all along the appraisal process (Landy & Farr, 1980). Research under this perspective has investigated, for instance, the formation of judgments (e.g., Hastie & Park, 1986), prototypes/stereotypes (e.g., Dobbins, Cardy, & Truxillo, 1988), and storage of information (e.g., DeNisi & Peters, 1996).

The central premise of the cognitive perspective is that raters' cognition varies in line with mental schemas (DeNisi, 1996; Feldman, 1981). Schemas were originally defined as structures of information organized according to a plasticity of patterns and hierarchies (Bartlett, 1967; Murphy & Cleveland, 1995) but according to a more refined conceptualization, they are sets of pre-conceived notions embedded one within another and representing different levels of abstraction (McVee, Dunsmore, & Gavelek, 2005). Some of the earliest schemas are: "There are good things" and "There are bad things". As we mature, we formulate new (e.g., "There are neutral things") and more complex schemas (e.g. "I must agree with people, or I will be rejected"; McVee et al., 2005; Ramirez, 1999). The value of schemas is that they permit us to interpret and construe our world (Bartlett, 1967; Bruner, 1957). Nonetheless, only some schemas are *activated* (i.e., ready to be used) at a time to deal with particular situations (Trafimow, Triandis, & Goto, 1991). For instance, people see silhouettes of either two faces or a cup in Rubin's vase depending on which schema is activated (i.e., "A face look this way" vs. "A cup looks this way"; Pérez-Sánchez, 2008). Likewise, raters' impressions about employees' performance vary according to schemas activated during the

appraisal process. For instance, some raters think that a ratee lying in a chair is wasting time, while others believe that he is having planning time (DeNisi, Cafferty, & Meglino, 1984).

Despite the efforts exerted by these three perspectives, so far there are no definitive remedies to most biases affecting the appraisal process. It is then imperative to offer solutions with genuine applicability in business settings (Banks & Murphy, 1985; Fletcher, 2001). To accomplish this aim, we propose to incorporate *priming manipulations* into the appraisal process.

Applications of Priming Manipulations

Priming constitutes an intriguing phenomenon that is not only shifting the debate on automatic (i.e., unconscious) and controlled (i.e., conscious) cognitive efforts (Bargh & Huang, 2009; Doyen, Klein, Simons, & Cleeremans, 2014; Molden, 2014) but also offering a novel method for performing experiments. In this thesis we are interested in priming because, on the basis of the evidence, it appears to interfere with raters' cognition during the appraisal process (e.g., Aaker & Lee, 2001; DeCoster & Claypool, 2004; Herr, 1986; Ikegami, 1993; Martin, 1986).

As illustrated by Doyen et al. (2014), to talk about priming is to talk about how past experiences have repercussions in the future. More strictly, it refers to the automatic preparation of a future unintentional or effortless response adjusted according to a preceding stimulus (Bargh & Huang, 2009; DeCoster & Claypool, 2004; Molden, 2014; Oyserman & Lee, 2008). Priming is evident, for instance, when a quick conversation interrupts our writing, and when we try to continue, we mistakenly add a word connected to what we were just talking. It is also evident when somebody asks us to think of an animal, and our minds instantaneity recall our pet. In these examples, there is a stimulus (i.e., the conversation, interacting with a pet) augmenting the readiness of a response, which manifests under certain conditions (i.e., writing, recalling).

Scholars from various disciplines have taken advantage of priming to conduct singular experiment procedures. The so-called *priming manipulations* consist of simple tasks, such as reading passages, listening audios, or seeing images, that are designed to induce behaviors or attitudes in participants (Bargh & Huang, 2009; Doyen et al., 2014). A classic example of priming manipulation is that of Higgins, Rholes, & Jones's (1977) experiment, which discretely influenced participants' impressions of a target person thru flashing slides containing sets of words.

Afterward, participants gave positive and negative impressions according to their exposure to positive or negative words. Other experiments with such manipulations have gone as far as to influence racial stereotypes and encourage patterns of thinking, all these without participants noticing any deliberate intervention (e.g., Abraham & Appiah, 2006; Pierce & Lydon, 1998).

Given the notorious parallelism between Higgins et al.'s (1977) experiment and the appraisal process, it seems fair to argue that priming manipulations can influence the appraisal process in terms of discomfort and leniency. Furthermore, priming manipulations would be useful for research in PA as a tactic to avoid confounding variables (Oyserman & Lee, 2008), a recurrent barrier for both the cognitive perspective and research on cultural factors (DeNisi, 1996).

Conducting Priming Manipulations in the Appraisal Process

In the present thesis, the issue under scrutiny is whether priming manipulations can influence the appraisal process in terms of discomfort and leniency. To answer this inquiry, we need to decide which schemas we should manipulate, on what phase of the appraisal process we should apply the manipulations, and how discomfort and leniency will be affected.

Part of the criticism against the cognitive perspective of PA revolves around the lack of clearness about the content and nature of schemas (see Murphy & Cleveland, 1995). To avoid this problem, we focus on individualism and collectivism, two well-studied concepts which are nested in our minds as schemas (Oyserman & Lee, 2008; Trafimow et al., 1991), and which have been successfully *primed* in several experiments (see Oyserman & Lee, 2008). To avoid confusion, “individualism” and “collectivism” here make reference to the national level (see Hofstede, 1983), while “independence” and “interdependence” are used to discuss psychological dimensions at the individual level (see Markus & Kitayama, 1991). These terms, however, portray the same values disregarding the level of analysis.

By exploring individualism and collectivism, we are addressing current business necessities (see Fletcher, 2001). Around the world, firms are expanding their HRM practices to buoyant economies in collectivistic regions (e.g., Asia and South-America). There are also numerous firms trying to manage workforce diversity. All these businesses can benefit from this study by learning to anticipate the reactions of their workforce to foreign appraisal systems.

Priming is functional only under specific circumstances (Aarts & Dijksterhuis, 2003; Fujita & Trope, 2014). Hence, the second issue is to establish the conditions in which priming will operate in this study. We chose to focus on the rating phase of the appraisal process because ample research outside the formal area of PA have already tested priming manipulations during *pre-rating* phases (e.g., Aaker & Lee, 2001; DeCoster & Claypool, 2004; Ferguson & Bargh, 2004; Herr, 1986; Higgins et al., 1977; Martin, 1986). Besides, there is not sufficient literature concerning the biases present in pre-rating phases.

The final issue is to foresee the effects from our priming manipulations. On one hand, the current evidence indicates that we can alter raters' independence and interdependence as a result of priming individualism and collectivism (e.g., Gardner, Gabriel, & Lee, 1999; Kimmelmeier & Yan-Ming Cheng, 2004; White, Lehman, & Cohen, 2006; Ybarra & Trafimow, 1998). On the other hand, Saffie-Robertson & Brutus (2013) suggest that predominantly independent and interdependent raters score differently in discomfort towards the appraisal process; therefore, on logical grounds, our priming manipulations should alter discomfort towards the rating phase of the appraisal process and leniency in the form of rating elevation. If we succeed, then we could provide further empirical evidence associating cultural factors to the appraisal process. More importantly, research would be one step closer to offer plausible alternatives to cope with leniency.

II. Literature Review

2.1. Performance Appraisal

Fletcher & Perry (2001) define PA as “a variety of processes that generally involve the assessment and development of an individual and their performance at work...” (p. 127). A formal description of the appraisal is that of annual reports of subordinates’ performance assessed by a direct supervisor, yet the practice has evolved in complexity and dynamism to match current business demands. Consequently, the notion of PA has been broadened into a “general heading” for a number activities directed not only to assess and increase employees’ performance but also to make administrative decisions, such as the distribution of rewards, contract terminations, and promotions (Fletcher, 2001; Fletcher & Perry, 2001).

As described by Harris (1994), the appraisal process encompasses several steps: *Observation* of employees’ behaviors, *storage* of information regarding employees’ performance, *integration* of multiple observations, *rating* of employees’ performance, and provision of *feedback*. Of all these phases, the rating process has received so much attention that it has become a synonym of PA (Brutus, 2010). Consequently, evaluators are called *raters*, and evaluated employees are called *ratees*. The cognitive perspective developed the claim that inherent to the mentioned process are diverse cognitive functions requiring conscious or unconscious efforts to process information regarding ratees’ performance (e.g., perception, memory, integration; DeNisi, 1996).

Scholars orient their research towards increasing the effectiveness of the appraisal process (Bernardin & Beatty, 1984; DeNisi, 1996; Murphy & Cleveland, 1995); that is to say, the extent to which the process achieves its various purposes. Accordingly, scholars have documented numerous biases constraining the accuracy of rating scores. These biases restrain raters’ ability to discriminate among levels of performance, among dimensions of performance, or among employees (see Tziner & Murphy, 1999). Examples of biases include *halo error*, in which rating scores highly correlate among distinct dimension of performance; *recency bias*, the tendency to give a higher significance to recent performance; and *leniency*, the tendency to provide mild appraisals (DeNisi, 1996; Viswesvaran, Schmidt, & Ones, 2005). Biases are not only numerous,

but they also come in many forms. For instance, *rating elevation* is a kind of leniency in which ratings are purposely inflated (Bass, 1956).

Historical Trends

PA has existed in different times and places. In the Middle Ages, Chingiz Kan (1167-1227 A.D.) acquired skillful commanders after introducing meritocracy among Mongolian hordes, an innovation encompassing some sort of PA (Archer, Ferris, Herwig, & Travers, 2002). Accounts from 1784, depict the Evening Post of Dublin pressuring Irish politicians with a “Scale of Parliamentary Merits”, which consisted on a 1 to 20 scale with nine items such as “independence, general knowledge, influence, honesty and other qualifications of importance” (Hackett, 1928, p. 130). In the XIX century, Prussia abolished military career based on nobility by introducing a system assessing corps’ performance at training and war games (Archer et al., 2002). Unfortunately, issues in the appraisal have always been present. In fact, one of the earliest records of PA complains about an “Imperial Rater” of the Wei Dynasty (China, III century A.D.) displaying personal favouritisms (Patten, 1977).

The first formal application of PA is attributed to the British reformist Robert Owen (1771-1858) who, in the early XIX century, implemented a system designed to categorize workers from his cotton mills in Scotland according to groups ranging from “weak” to “outstanding” (Andrews, 1997). But PA was not applied widely until the Man-to-Man Comparison Scale appeared some decades before the WWI. After the War, the Scott Company, now Kimberly-Clark, developed the Graphic Rating Scale, which consisted on a list labeling dimension of performance and an adjacent detailed scale. Decades later, the Critical Incident Method was implemented by the U.S.A Air Forces during WWII and then spread to industry (Flanagan, 1954). In 1963, Smith and Kendall (1963) introduced the Behaviorally Anchored Rating Scale (BARS). The scale consisted of circling statements describing ratees’ behaviors. Many scales followed BARS, such as Mixed-Standard and Force-Choice scales (for a review see Bernardin & Beatty, 1984). Despite the efforts firms’ discontent grew, especially after PA began to be applied for other purposes apart from assessment.

By the early 50's, PA was well established in North America and began to be applied for developmental purposes (Murphy & Cleveland, 1995). It was in 1952 when Wherry, aiming to describe biases beyond rating scale instruments, pioneered the cognitive perspective (Landy & Farr, 1980). But Wherry's approach went unnoticed; instead, socio-psychological factors received growing attention. The 70's brought new labor policies that increased the pressure on the effectiveness of the appraisal process (see Murphy & Cleveland, 1995). Consequently, the literature in training and socio-psychological factors flourished. Worth mentioning studies evidencing greater ratings when rater and ratee share common traits (e.g., gender, age; Landy & Farr, 1980).

In the 80's, Landy and Farr (1980) claimed that research on PA was not reducing firms' problems. Their review of 1980 raised debate on raters' cognition, placing this approach as the leading perspective (see Bretz, Milkovick, & Read, 1992). Even the literature on training adjusted to the new trend as exemplified by the Frame-of-Reference Training pretending to standardized raters' decisions making procedures (see Sulsky & Day, 1992). Nonetheless, the cognitive perspective could not overcome its limitations. In particular, dissenters claimed that the approach had restricted applications for practice (DeNisi, 1996; Murphy & Cleveland, 1995). Research on contextual factors domains literature since the 90's, yet real solutions to business seem distant and biases in the appraisal process persist even today.

An Approach to Raters' Cognition

The first model assimilating cognition to PA is that of Wherry's (1952, as cited by DeNisi & Peters, 1996) portrayal of rating accuracy as the outcome of raters synthesizing their pre-conceptions with ratees' characteristics. Decotiis and Petit (1978) expanded Wherry's model through the incorporation of motivation as a necessary factor for reaching rating accuracy. Feldman's (1981) and DeNisi, Cafferty, and Meglino's (1984) models, on the other hand, are process oriented, both describing how initial observations translate into final ratings. Mental schemas lie at the core of all these models.

To depict how schemas affect the appraisal, we adapt DeNisi et al.'s (1984) model. This model describes raters' job as a cognitive process integrating many functions (see Figure 1), each

with critical tasks defining the outputs (see Appendix 1). Furthermore, it recognizes that only some schemas are accessible during cognitive functions. The process, as described by the authors, is as follows:

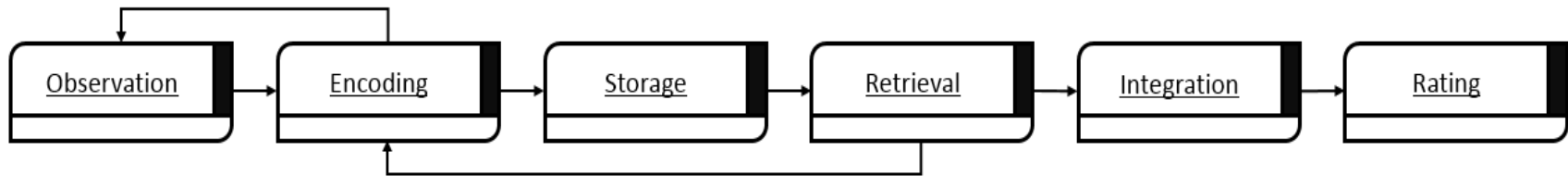


Figure 1: DeNisi et al.'s (1984) model of raters' cognition in the appraisal

Observation: In the initial phase, raters gather *data*³, which is raw information regarding ratees' behaviors collected through a wide variety of sources, including direct observations, oral reports or documentation (DeNisi et al., 1984; Feldman, 1981). The critical task here is to obtain a representative sample of observations (DeNisi, 1996). Accordingly, the sample should be as big as to avoid erroneous generalizations. If the sample is too small, raters may not be able to discriminate among performance (Hastie & Park, 1986). Nevertheless, notions of an ideal sample size may depend on schemas activated during this observation phase. In Matte's (1982, as cited by DeNisi et al., 1984) experiment different schemas activated in line with the purpose of the appraisal; thus, raters collected more data when the appraisal was for administrative decisions than when for providing feedback. On the other hand, raters decide what behaviors reflect pertinent dimensions of performance (DeNisi, 1996). Then again, schemas signal what behaviors are relevant and must be observed. Williams, DeNisi, Blencoe, and Cafferty (1985) conclude that raters observe a wider range of behaviors when the appraisal is for making salary decisions than when it is for training and promotion.

Encoding: After observing, the short-term memory saves the data (Hastie & Park, 1986). Data is then interpreted to generate initial, relatively general, pieces of information called *impressions* (e.g., shy, energetic, careless, etc.). Raters may decide to conduct additional observations when data is too hard to understand. When interpretations are possible, then the critical task is to form accurate impressions (DeNisi et al., 1984; Feldman, 1981).

Impressions form according to unique varieties of schemas called prototypes, which are preconception about standards, behaviors, or even ratees' characteristics (London & Poplawski, 1976). DeNisi et al. (1984) and Murphy and Constans (1987) point out that ambiguous dimensions of performance may lead to contradictory conceptualizations depending on raters' sets of prototypes. As exemplified by DeNisi et al. (1984), a rater evaluating the dimension "critical thinking" may consider that a ratee lying in a chair as unproductive time but another rater may believe that the ratee is having a planning time. On the other hand, prototypes generate expectations of performance that are likely to bias the appraisal (see Huber, 1987). For example,

³ We use our own terminology for a better understanding of the model. This terminology better depicts qualitative change of information, and highlights input/output units.

if a rater continually exceeds standards, subsequent minor but significant declines in performance may cause a lenient impression of good performance (Hanges, Braverman, & Rentsch, 1991; Mount & Thompson, 1987).

Beyond cohort effects, schemas may elucidate mixed and contradictory results concerning stereotyping biases in the appraisal process (see Griffeth & Bedeian, 1989; London & Poplawski, 1976). Blair & Banaji's (1996) findings support the claim that stereotypes do not bias impressions if not activated during encoding. Indeed, a pattern can be observed in which studies not activating stereotypes are those reporting non-conclusive results but those activating stereotypes do find biases (see Cleveland & Landy, 1981; Rosen & Jerdee, 1973; Rosen & Jerdee, 1974). Feldman (1981) asserts that hidden organizational characteristics activate stereotypes. For instance, Griffeth and Bedeian (1989), after failing to replicate past results evidencing bias against women accounting associates, reasoned that the previous disproportion of male to female associates in the firm activated stereotypes, but the proportion at the moment of the study did not (53% of associates were male). Hence, personnel ratios or other organizational characteristics could enable biasing schemas.

Storage: After encoding, long-term memory stores impressions. Hence, the critical task is avoiding losing relevant information⁴ (DeNisi, 1996; Hastie & Park, 1986). For that reason, DeNisi and Peters (1996) recommend the use of diaries in which raters record and organize their observations. At this stage, schemas have no function other than to store information in memory (DeNisi et al., 1984; Feldman, 1981).

Retrieval: During retrieval, impressions move from the long-term memory to the working memory (Hastie & Park, 1986). From there, impressions circulate in one of two directions: Going back to encoding or moving forwards to the next phase. If the second occurs, then it is critical to recall most impressions (DeNisi et al., 1984; Feldman, 1981).

There is a debate concerning which impressions raters recall more easily. A group of scholars believes that raters are prone to remember impressions consistent with schemas activated at this

⁴ There is debate concerning whether information is deleted in memory or is just harder to recall (see Schacter, 1995).

phase (e.g., Howard & Rothbart, 1980; Sentis & Burnstein, 1979). For instance, it is less likely for a male supervisor stereotyping women as poor performers to remember the good performance of a female employee if the stereotype keeps activated during retrieval. Other scholars consider that raters can more effortlessly recall inconsistent impressions (e.g., Hastie & Kumar, 1979; Lingle & Ostrom, 1979). Dijksterhuis and Van Knippenberg (1995) take a neutral position and argue that raters facing high workloads tend to recall consistent impressions, but raters facing small workloads tend to remember inconsistent impressions.

Integration: At one point, the working memory mixes multiple impressions. When this happens, raters generate *specific* (e.g., “She is good at interpersonal relations”, “He can’t tolerate pressures”) or *categorical judgments* (e.g., “He is a bad employee”, “She is a good employee”; DeNisi et al., 1984; Feldman, 1981). We can describe this phase as an average of impressions holding different averaging values (Schmitt, Noe, & Gottschalk, 1986). Hence, the critical task is to assign adequate values to those impressions.

DeNisi et al. (1984) and Feldman (1981) built the idea that raters value impressions differently according to four criteria: (1) Relevancy, (2) constancy, (3) time proximity, and (4) attribution. These authors agree that schemas cue the value given to impressions, yet they report that the usual is to give higher values to impressions reproducing the most relevant behaviors. Likewise, they indicate that the more impressions depict ratees’ individual efforts, the greater the value of these. More recent and constant impressions also receive higher values. However, Oishi, Wyer Jr, and Colcombe (2000) concluded that individuals from different nationalities use different schemas to assess attributions. For example, raters from some countries are more inclined to attribute ratees’ good performance to personal effort and less willing to attribute bad performance to external factors. Additional data is needed to determine whether the mentioned norms fluctuate in line with factors such as organizational culture or industrial characteristics.

Rating: Finally, raters translate judgments into rating scores (DeNisi, 1996). The last critical task is then to provide ratings that are truly reflecting judgments; otherwise, raters engage in deliberated alterations of rating scores (e.g., rating elevation; DeNisi et al., 1984; Feldman, 1981). DeNisi et al. (1984) contemplate that feelings, not schemas, interferes with raters’ cognitions at this phase. For instance, raters fearing adverse reactions of unions could elevate ratings, whereas

raters fearing losing control over subordinates could lower rating. The misunderstanding in DeNisi et al.'s (1984) view is that the authors believe that feelings and schemas are unrelated human aspects; nonetheless, their view that contrasts with evidence indicating that schemas can trigger feelings (cf. Clore & Huntsinger, 2007; Fiske, 1982; Izard, 2007).

Beyond depicting how raters' cognition affects the appraisal process, DeNisi et al.'s (1984) model is illustrative for other reasons. First, the model helps to rethink the nature of biases. For instance, does halo error originates due to memory decay as argued by Kozlowski and Kirsch (1987), is halo originated during observation due to discrimination errors among dimensions, as suggested by Murphy and Constans (1987), or is it just a form of illusory correlation generated at integration? Does leniency originates due to valuing miscalculations during integration, or is it created during rating process due to feelings? Second, the model implies that biases are carried and accumulated throughout the appraisal process, what makes DeNisi (1996) wonder if biases are corrected or exacerbated from phase to phase until reaching rating scores. So far, no efforts have been invested to inspect these inquiries despite its centrality to the cognitive perspective. According to DeNisi (1996) and Murphy and Cleveland (1995), the underlying obstacle is that information is hard to control. Nonetheless, this barrier would be at least partially relieved if scholars realize that information not just accumulates from one phase of the cognitive model to the next; instead, it changes qualitatively. Accordingly, scholars could asset and compare behaviors, data, impressions and judgments (see Appendix 1).

There is an additional question regarding raters' cognitive model to which both DeNisi et al. (1984) and Feldman (1981) propose the same answer. If raters' schemas frequently change in response to external forces, then what underlying mechanism allows such flexibility? For the authors, this mechanism is *priming*.

2.2. Priming

Defining Priming

Defining priming is not easy. The term is used in various disciplines to study diverse effects, a situation that is leading to confusion (see Bargh, 2014); yet, broadly speaking, priming refers to an implicit memory adjustment that allows the human mind to adapt and react more efficiently to the environment (Doyen et al., 2014; Tulving & Schacter, 1990).

Bargh (2014) attributes the first reference of priming to Lashley's (1951) chapter "The problem of serial order in behavior". Lashley was intrigued by the apparent simplicity of speech production, as it is not necessary to evoke each word before its vocalization. For the author, a "priming of expressive units" (p. 119) aids speech by mediating the intention and action of speaking. Thus, Lashley relates priming to speech production, a perspective that, although controversial⁵, printed the idea of priming increasing the readiness of a response.

It was Storms (1958) who, for the first time, identified responses generated by priming. Storms believed that backward associations facilitated the learning of associative word responses (e.g., learning to respond "Eagle" after hearing "Bird" when participants formerly experienced the sequence eagle-bird). Storms' experiment⁶ gave some evidence in support of this hypothesis, but the author suspected that a "recency effect" was contaminating the results. Hence, Storm conducted a complementary experiment using lists of unrelated paired words, which he called C-B pairs and whose associative occurrence was calculated by Russell and Jenkins (1954; as cited by Storms, 1958). Participants first read a sheet containing 14 C words (e.g., mutton). Then, they

⁵ There is debate concerning whether priming aids speech production (see Dell & O'Seaghdha, 1991).

⁶ To conduct this experiment, Storms used lists of syllables (A), control words (X), and paired words (B-C) whose associative occurrence had been already calculated in Russell and Jenkins's (1954; as cited by Storms, 1958) technical report and were 32% of B-C mean associative occurrence and 0% of C-B mean associative occurrence. He instructed one group of participants to learn 5 consecutive A-C pairs (e.g., zil-eagle) followed by 5 consecutive A-X pairs (e.g., zil-king). The order group started reading the A-X followed by the A-C pairs. Then, all participants received the same list of ten A-B pairs (zil-bird) to memorize. Participant's memory was tested by making them to response all B words after hearing A words, these until 3 consecutive correct sequences were attained. The five A-B pairs with an associated A-C previously exposed were easily memorized in contrast to the other pairs. An additional task revealed that participants were able to respond B after hearing C with a response occurrence of 80%.

received a second sheet with 36 words, of which 14 were B words (e.g., lamb) and the rest were control words. Participants wrote the first word that appeared in their minds after reading each word on the sheet. Finally, they wrote all the words of the first sheet as a misleading task to hide the real purpose of the experiment. The author confirmed the presence of the recency effect that made words more likely than usual to be associated. C-B associations reached 19% of mean occurrence while the average occurrence was 1%. Afterward, a plethora of studies struggled to unveil Storms' *priming effects*, as labeled by Segal and Cofer (1960, as cited by Bargh, 2014), all limited to experiments with word associations (e.g., Clifton, 1966; Cramer, 1965). Nonetheless, the real scope of priming effects remained concealed.

Although priming effects were recognizable as words associations, it was unknown what other kinds of effects existed until Higgins et al.'s (1977) experiment. Higgins et al. (1977) hypothesized that it is possible to manipulate judgments thru the activation of schemas. To test their view, the authors exposed 60 participants to positive, negative and neutral characterizing words contained in flashing slides, each lasting 8 seconds. Participants then joined an “unrelated” experiment in which they read a short story about the life of a person, and they finally wrote a depiction of the person. The authors designed these conditions to attribute the results to schema activation rather than to experimenter effects. Participants exposed to positive words (e.g., self-confident, independent, persistent) were more likely to describe the person positively. Conversely, participants exposed to negative words (e.g., reckless, conceited, aloof) were more likely to describe the person negatively; and those exposed to neutral words were equally likely to describe the person either positively or negatively. The authors reported that no participant guessed the real purpose of the study nor informed being suspicious of the relation between tasks. Higgins et al.'s (1977) experiment convey two contributions. First, it expanded the range of priming effect to judgments, indicating that priming has deeper repercussions in cognitive faculties. Second, it proposes that priming works through altering schemas.

These three investigations lead to the study of priming in diverse areas (e.g., linguistic production, social psychology, and cognitive psychology; see Bargh & Huang, 2009; Dell & O'Seaghdha, 1991; Molden, 2014). Although such expansion has obstructed a common definition, priming can be described as the automatic augment of the readiness of a future unintentional or

effortless response according to previous stimulus (Bargh & Huang, 2009; DeCoster & Claypool, 2004; Molden, 2014; Oyserman & Lee, 2008).

Understanding Priming Activation and Priming Effects

In this section, we enlighten the components of such a complex phenomenon by separating activation (stimuli-activation) and effect (circumstance-response). *Priming activation* refers to the automatic activation of a schema according to stimulus, whereas *priming effect* is the unintentional or effortless response ready to appear under certain circumstances and as long as the schema remains activated (Bargh, 2014; Bargh & Huang, 2009; Molden, 2014).

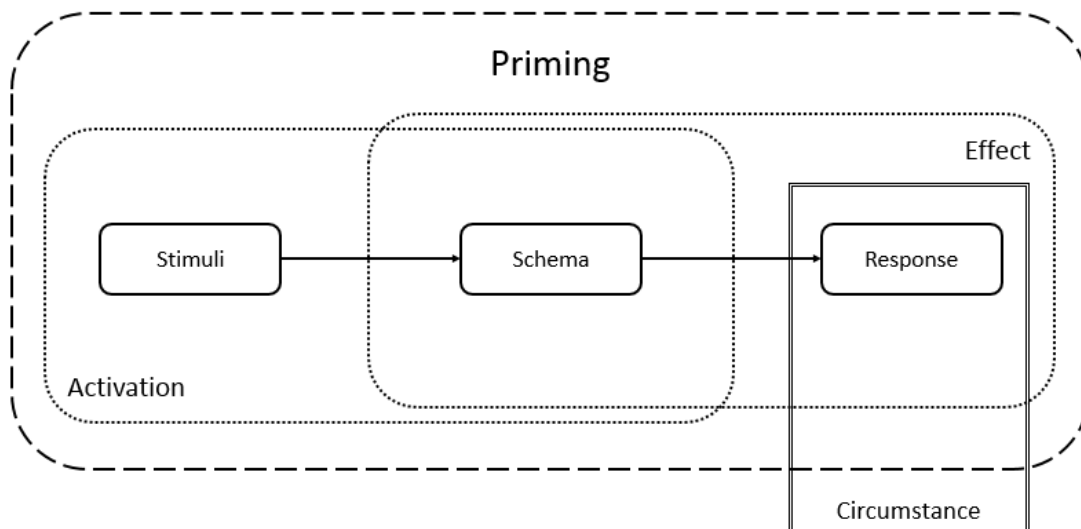


Figure 2: Priming activation and effects based on Bargh & Huang (2009) and Bargh (2014)

The process of priming starts with the priming activation, which is elicited by a semantic, phonetic, or visual stimulus. Bargh and Huang (2009) considers that the activating stimulus is external, but his view denies priming activations when individuals visualize certain scenarios (e.g., Gardner, Gabriel, & Hochschild, 2002; Pierce & Lydon, 1998; Zabelina & Robinson, 2010). Whatever the case, individuals are not always aware of the perceived stimulus (Dupoux, Gardelle, & Kouider, 2008; Kouider & Dupoux, 2005). Perception with awareness occurs, for example, when we see a tree, and we think of “tree”, but at the same time we see branches, bark, and surroundings without thinking of them (see Merikle, 1992). Along similar lines, *supraliminal*

priming occurs when the activating stimulus is perceived by higher-level perceptual functions, which permit us to see the three as a whole (Dupoux et al., 2008). A good illustration of supraliminal priming are those situations in which individuals get emotionally affected after waiting in a room with certain colors (e.g., red triggers anger in some cultures; see Hupka, Zaleski, Otto, Reidl, & Tarabrina, 1997). In this cases, participants perceive the colors in the room but are not necessarily thinking of the walls. Conversely, *subliminal priming* occurs when the activating stimulus is perceived by lower-level perceptual functions (Dupoux et al., 2008; Soussignan, Jiang, Rigaud, Royet, & Schaal, 2010). Back to the tree example, the surroundings, the cuts in the trunk, and the broken branches are perceived thru lower-level perceptual functions.

It has been proposed that the priming stimulus activates schemas (Higgins et al., 1977; Oyserman & Lee, 2008; Srull & Wyer, 1979). As implied by Molden (2014), the content is somehow associated with the stimulus but also with a response. The schema is then the bridge between a prior stimulus and a future response (see Figure 2. The more the stimulus is perceived, the more activated becomes the related schema, and thus the readiness of the future response rises (Ferguson, 2008; Srull & Wyer, 1979). After the activation, the associated response is the most prone to happen amongst other feasible responses (Loersch & Payne, 2014). Recalling Higgins et al.'s (1977) experiment, the semantic stimuli (i.e., words in flashing slides) made negative or positive schemas more accessible to the participants. When required to evaluate the target person, the first ideas that appeared in the mind of participants were negative or positive thoughts.

The central theoretical premise behind priming is that the activation is automatic. This because, although individuals may be aware of the stimulus, they do not deliberately prepare a future response (Bargh & Chartrand, 1999; Bargh & Huang, 2009; Ferguson, 2008). Even if automatic, priming activations are as strong as non-automatic activations (see Bargh & Chartrand, 1999). Evidence supporting the strength of priming lie in the findings of neuroscience, which show that both automatic and conscious activations stimulate the same regions in the brain (Pessiglione et al., 2007). About the strength of priming, some scholars propose a distinction between *long-term* from *short-term priming* to designate how long the schemas remain activated (see Wentura & Rothermund, 2014). Dupoux et al., (2008) consider that such distinction is superficial. The authors specify that supraliminal priming activates schemas for a longer period than subliminal priming.

The activation of schemas can generate priming effects, which are cognitive, affective, or behavioral responses that manifest under the proper circumstances (Aarts & Dijksterhuis, 2003; Fujita & Trope, 2014). In fact, priming is intriguing due to its effects. In Pierce and Lydon's (1998) experiment, for instance, students discretely exposed to positive words conveyed greater levels of positive affect than those exposed to negative words. Aarts and Dijksterhuis (2003) report that participants started to speak softly after exposure to library photos. Gardner, Gabriel, and Lee (1999) describe higher scores of collectivistic values in participants who read a passage containing solely plural nouns, and higher scores of individualistic in participants who read a passage with singular nouns. Similar examples of priming effects abound in the literature.

Cognitive, behavioral and affective types of responses could reflect different layers of priming effects (Ferguson & Mann, 2014). The immediate effect is cognitive (i.e. schema activation). This lead to measurable perceptual or judgemental responses (Higgins et al., 1977; Srull & Wyer, 1979), which may translate into behavioral responses (see Blair & Banaji, 1996), or to affective responses (see Pierce & Lydon, 1998), depending on circumstances.

In most occasions, participants seem to be unable to relate an observed priming effect to the activating stimuli. Bargh and Huang (2009) comment that when they have shared their results with participants some of these were reluctant to accept that apparently unconnected tasks influenced their actions. Furthermore, (Soussignan et al., 2010) study suggests that some priming effects are undetectable even for researchers. These authors, for instance, were only able to detect minimum activity in facial muscles after their priming intervention with a sophisticated electromyographic device.

Application of Priming as Research Tool

Scholars take advantage of the properties of priming to conduct particular procedures called *priming manipulations* (see DeCoster & Claypool, 2004). Priming manipulations consist of naïve tasks, such as reading passages, listening audios, or seeing images, which seem irrelevant for participants but hold hidden stimulus. These manipulations are supposed to increase the salience of an independent variable (IV) by activating a target schema (Oyserman & Lee, 2008).

Experiments conducting priming manipulations proceed substantially in the same way. The first step is to associate an IV to a target schema. A logical fit between IV and schema is compulsory to augment the salience of the IV. It is equally necessary to anticipate an effect on the dependent variable (DV) due to the manipulation. The next step is to *prime* (i.e., to activate) the target schema with a specific technique. This action should increase the salience of the IV. Ideally, experiments should try to conceal the stimuli (e.g., grammar cues hidden within a passage in Gardner et al., 1999; flashing slides in Higgins et al., 1977) as a way to attribute responses to the activation of schemas rather than to experimenter effects. Experiments with priming manipulations typically include control groups, but sometimes a dichotomous schema is activated as a control. The final step consists of measuring the DV. At this point, it is recommendable to check if any participant noted the connection between manipulation and response as an additional precaution for distinguishing priming effects from experimenter demands effect (DeCoster & Claypool, 2004; Doyen et al., 2014).

Take one experiment (viz., Zabelina & Robinson, 2010) as an example of the application of priming manipulations. Zabelina and Robinson aimed to link responsibilities and creativity. They hypothesized that “child-like mind” schemas could well reflect a state of few responsibilities, a state that would result in high scores of creativity. Contrariwise, “adult-like mind” schemas could indicate a state of many responsibilities, which would result in low scores of creativity. To prime “child-like mind” schemas, 36 students wrote a short passage about what they would feel, think, and do if they were seven years old and somebody told them that classes were canceled for the day. To prime “adult-like mind” schemas, a second group of 40 students performed the same writing task but omitting the “seven years old” condition. Data yielded from this study showed that participants exposed to the “seven years old” priming condition scored higher in creative performance as measured by the Abbreviated Torrance Test for Adults than those exposed to the second condition.

The underlying argument for using priming manipulations is that any variance in the DV is directly accredited to the salient IV because salience evades confounding variables, what is especially convenient when unknown or unmeasurable confounders are present (Oyserman & Lee, 2008). However, there are also concerns prompting doubts on priming manipulations. For example, it is sometimes unclear whether participants noticed the connection between task and

effect. Hence, experimenter effects may perhaps contaminate the results (e.g., Sassenberg & Moskowitz, 2005). A second issue is that occasionally scholars adopt schemas ambiguously reflecting the desired DV (e.g., does “child-like mind” schemas reflect a state of few responsibilities?; Zabelina & Robinson, 2010). Fortunately, manipulation and awareness checks can overcome these concerns (DeCoster & Claypool, 2004; Doyen et al., 2014).

Integrating Priming to Performance Appraisal

In previous sections, we described Higgins et al.’s (1977) experiment in which the authors unobtrusively manipulated participants’ cognition and subsequent impressions of a target person. Their research suggests that priming can affect PA. Supporters of the cognitive perspective of PA have already proposed that priming interferes with the appraisal process (e.g., DeNisi et al., 1984; Feldman, 1981). In their view, priming is the mechanism allowing raters to change schemas in response to contextual factors but these schemas can bias appraisals. Ample evidence outside the field of PA supports this claim (see Aaker & Lee, 2001; DeCoster & Claypool, 2004; Herr, 1986; Ikegami, 1993; Martin, 1986).

The main argument to connect the appraisal process with priming rests in the nature of raters’ job. Raters face time pressures, limited resources, and an overwhelming amount of information requiring processing (DeNisi & Peters, 1996; Mintzberg, 1990). Raters see themselves deprived of time to ponder carefully what kind of behaviors they must observe, what are behaviors saying of the employee, nor how to value each impression to provide an accurate evaluation. Consequently, their appraisals of others are less the product of deliberated efforts and more the result of automatism (DeNisi et al., 1984; Feldman, 1981; Hastie & Park, 1986). Therefore, when controlling for experience and time, priming guides raters’ cognitive functions involved in the appraisal process.

The incidence of priming seems palpable all along DeNisi et al.’s (1984) model. The matter is to detect stimuli, schemas, and responses. For instance, prior experiences activate schemas related to performance expectations; if an initial observation of a particular type of behavior fits the expectations, then the rater may stop observing those behaviors, thus increasing the risk of discrimination errors (Feldman, 1981). The composition of the labor force and perhaps other

organizational characteristics may activate stereotypes yielding erroneous impressions during encoding (Abraham & Appiah, 2006; Blair & Banaji, 1996; Griffeth & Bedeian, 1989). It also seems feasible that higher rivalry among U.S.A. firms activates schemas containing higher standards of exigency or competitiveness in raters laboring in these companies; what would explain why there is a general trend in this nation to give greater value to negative than to positive impressions (DeNisi et al., 1984).

Although activations and responses were automatic in all the mentioned scenarios, raters may be able to make sense of their actions if inquired. More subtle activations could take place as well, as analogs of priming manipulations (see Aaker & Lee, 2001; DeCoster & Claypool, 2004). In fact, evidence from research on social cognition suggests that impressions can be manipulated during the encoding phase of the appraisal process (e.g., Ferguson & Bargh, 2004; Higgins et al., 1977; Ikegami, 1993; Srull & Wyer, 1979). In Herr's (1986) experiment, for instance, participants exposed to pictures of celebrities displaying aggression were prone to tag a neutral target person as hostile than participants exposed to pictures of celebrities showing friendliness. What is more, there is evidence indicating that priming manipulations can be applied in the appraisal to overcome stereotyping biases (e.g., Blair & Banaji, 1996). In Sassenberg & Moskowitz's (2005) experiment, participants requested to think of a time of high creativity production in their lives gave less stereotyping responses than those in the control group. Similarly, Oishi et al. (2000) experiment suggests that priming manipulations can affect judgments during integration. In this study, participants primed with collectivism were more inclined to attribute good performance to dispositional factors and more willing to attribute bad performance to external factors than did students primed with individualism. Likewise, subtle priming manipulations may well activate schemas affecting rating scores (see Ikegami, 1993).

Under such scenarios, it is conceivable to influence the rating process of the appraisal with subtle priming manipulations concealed in rating scales instruments, or even in official statements of the purposes of the appraisal system. Words *per se* lack any sense; they are just commands activating schemas that give immediate meaning to a language system. Relatively minor semantic features can convey additional instructions activating unintended schemas (Abraham & Appiah, 2006; Carrell & Eisterhold, 1984; Ferguson, 2008). Words, therefore, can produce notorious repercussions in cognitive functions (see Carrell & Eisterhold, 1984; Gardner et al., 1999;

Oyserman & Lee, 2008). Similarly, rating scale instruments masking priming manipulation may alter raters' cognitive functions and thus the outputs of the appraisal process.

It is tempting to contemplate scenarios depicting priming applications. For instance, there are words that can augment raters' social attachment (Gardner et al., 1999). These words could make raters to give greater value to positive than to negative impressions (see Elenkov, 1998; Milliman et al., 2002), what would result in fewer stringency biases. Other words can increase the sense of shared responsibility (Gardner et al., 1999). These words could make raters to become less inclined to attribute performance to ratees' efforts (see Oishi et al., 2000), what would result in less leniency. There are words that can foster raters' anxiety about supervisory controls (Aaker & Lee, 2001), and thus make raters less likely to alter rating scores (see Tziner & Murphy, 1999). Likewise, those words that can boost raters' self-enhancement (Gardner et al., 2002), could reduce rating elevation (see Tziner & Murphy, 1999). In sum, the use of priming manipulation may lead to diverse practical applications for the appraisal process.

Priming manipulations can also be useful for research on PA. On one hand, DeNisi (1996) highlights that it is not easy to control all the information being treated during raters' cognitive process. Priming manipulations can alleviate this difficulty by making schemas containing the information under scrutiny more salient (Oyserman & Lee, 2008). Priming manipulations then could be used to study the incidence of a stimulus over a cognitive function and even explore how biases are carried all along the cognitive process. With these advantages, scholars would be in a better position to develop not only rating scales but "performance appraisal instruments" incorporating other phases of rates' cognition process (see Williams, Cafferty, & Denisi, 1990). On the other hand, research linking culture and PA can use priming manipulations to circumvent confounding variables present at the cultural level of analysis (Oyserman & Lee, 2008). Hence, researchers can obtain a better image of the incidence of culture in the appraisal process, what would benefit firms dealing with workforce diversity as well as firms expanding their operations to foreign countries.

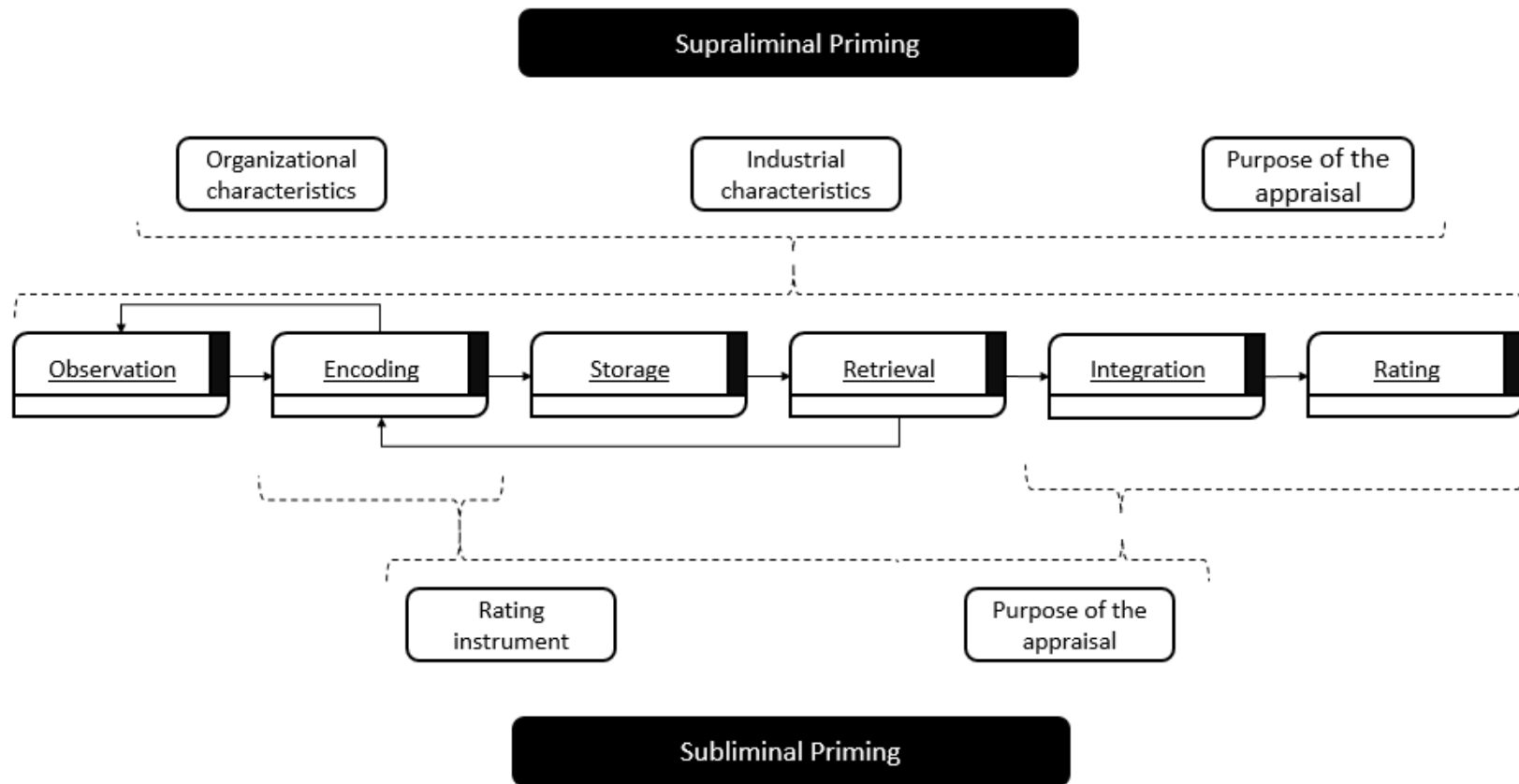


Figure 3: Integrating priming in the appraisal

2.3. Culture

As discussed in the previous section priming is one mechanism thru which raters' schemas adapt in response to the context. In this section, we propose which cultural factors can play the role of priming stimuli.

Culture and Performance Appraisal

A formal definition of culture is elusive for scholars; nonetheless, it is commonly accepted that it refers to a shared system of norms, values, and assumptions (Trompenaars & Hampden-Turner, 1998). *Norms* refer to common sense about what to do and how to act; *values* denote a common sense of what is right or wrong (Hofstede, 2001); and *assumptions* constitute a deeper layer of guidelines from which norms and values originate (Trompenaars & Hampden-Turner, 1998).

During the 1950s and 60s, supporters of the then widely accepted “convergence hypothesis” took for granted that a number of universal principles lined management. In other words, they considered that managerial practices that have proven to be effective and efficient in North American and European nations necessarily had to be effective and efficient if applied to other societies disregarding any domestic difference. With time, an overwhelming amount of data demonstrated that culture shapes most facets of management, and PA should not be the exception. Aspects such as purpose, content, legitimacy and standards of the appraisal system are all affected by cultural factors (Fletcher & Perry, 2001; Murphy & Cleveland, 1995). In Japan, for instance, the appraisal systems reproduce a culture in which social groups hold immense power. In this nation, the appraisal systems gain legitimacy from employees' social norms rather than from organizational policies. What is more, standards of performance are imposed by the group and determine, for instance, that good white-collar employees work until late in the night (Hofstede, 1993). In Hong Kong, whose culture characterizes by its tolerance to authoritarianism, the appraisal system usually determines rewards and punishments. The opposite happens in the United Kingdom, where authoritarianism is not accepted, and evaluations follow developmental purposes (Snape et al., 1998). In Russia, lastly, the great predilection for providing indirect feedback reflect a culture concerned with achieving political power (Elenkov, 1998).

Despite the relevance of culture in PA, only a few studies have offered empirical evidence of such connection (e.g., Chiang & Birtch, 2010; Saffie-Robertson & Brutus, 2013; Snape et al., 1998). The biggest obstacle for this kind of research is that the macro level is full of unknown or uncontrollable confounding variables (e.g., educational attainment, national income; Chiang & Birtch, 2010; Oyserman & Lee, 2008). Under such scenario, priming offers a window thru which scholars can witness how raters adapt their schemas in line with cultural factors (Oyserman & Lee, 2008). Therefore, researchers would need to revise cultural factors that can be primed and are likely to affect PA. *Individualism* and *collectivism* meet both requisites.

Individualism and Collectivism

Inquiries on individualism and collectivism comprise a long and rich tradition. The origins of this tradition can be traced back to Confucius's "*wu lun*" or fundamental relationships (emperor-subject, husband-wife, parent-child, older brother- younger brother, and older friend-younger friend); or at least to modern philosophies, such as Tocqueville's democratic emphasis, Rousseau's social contract, and Locke's individual liberty (Earley and Gibson, 1998). In the managerial field, interest on these constructs, and culture in general, nurtured after Geert Hofstede's (1980) article "Motivation, leadership, and organization: Do American theories apply abroad?"

According to Hofstede's (1983) approach, which has prevailed in the managerial field, individualism and collectivism are fixed poles in a continuum mirroring how individuals think of themselves in relation to others. In highly individualistic nations, people pursue their personal interest, respect individual privacy, and follow social norms to avoid feelings of guilt. Conversely, in highly collectivistic nations, people seek common interest, strive for social approval, and follow social norms to prevent feelings of shame (Hofstede & Bond, 1984; Hofstede, 1983, 2001, 2011). Markus and Kitayama (1991) introduced the notion of *independent* and *interdependent self-construal* identities (also known as *allocentric* and *idiocentric*; Triandis, Leung, Villareal, & Clack, 1985) to label an extension of individualism and collectivism in individual psychology. The former see themselves as fundamentally distinct from others, whereas the later see themselves as essentially attached to others (Haberstroh, Oyserman, Schwarz, & Ku, 2002; Singelis & Sharkey, 1995), a description that does not deviate from that of Hofstede's (Hofstede, 1983, 2001, 2011).

As individualistic and collectivistic nations comprise different sets of goals, needs, and motivations, their approach to the appraisal process also differs. For instance, Chiang and Birtch (2010) found that rates from all the individualistic countries (i.e., The United Kingdom, Finland, Sweden, USA, and Canada) display higher levels of trust towards the overall appraisal process than rates from collectivistic countries (i.e., Hong Kong and Singapore). The authors argue that the need of collectivistic nations of maintaining harmony underpins trust because the appraisal procedures become lax. Saffie-Robertson and Brutus's (2013) study points in the same direction, showing that interdependence is positively related to leniency.

Rethinking Individualism and Collectivism

As mentioned earlier, it is possible to prime individualism and collectivism. Nonetheless, Hofstede's view of individualism and collectivism as two opposing and relatively unchanging features seems to neglect such prospect. Further clarification is necessary to conciliate both postures.

Hofstede (1983, 1993, 2001, 2011) recognizes that culture delineates several facets of individuals. Individualism and collectivism are not immune to this pattern: The more individualistic (collectivistic) the culture, the more individualistic (collectivistic) the individuals (Markus & Kitayama, 1991; Trafimow et al., 1991; Triandis, 1989). Nevertheless, the connection between culture and self-construals is not entirely straightforward; on the contrary, individualism and collectivism vary across levels of analysis (Earley & Gibson, 1998), being this the key to understanding why it is possible to prime individualism and collectivism.

According to Hofstede, individualism and collectivism constitute a continuum, with extremely individualistic societies on one side and extremely collectivistic societies on the other side. Why then, as Earley and Gibson (1998) point out, do individuals from individualistic (collectivistic) cultures display collectivistic (individualistic) behaviors in certain situations? Triandis (1989) gives an explanation for this apparent contradiction claiming that individuals hold both identities, *idiocentric* (i.e., independent) and *allocentric* (i.e., interdependent). Trafimow, Triandis, and Goto (1991) provide empirical evidence in support of this claim. Their data indicate that independence and interdependence are two separated schemas coexisting in memory. Therefore, while individualism and collectivism obey a continuum at the national level, independent and

interdependent identities coexist as two dimensions at the individual level (also see Kemmelmeier & Yan-Ming Cheng, 2004; White et al., 2006).

The second interpretation in Hofstede's view is that the author contemplates individualism and collectivism as relatively stable conditions. Nonetheless, individuals can adjust to new cultures with reasonable ease (Earley & Gibson, 1998). Trafimow et al. (1991), for instance, were able to induce collectivistic values in North-American students, which are mainly independent, and to induce individualistic values in Hong Kong Chinese students, which are mainly interdependent. White et al. (2006) went further. After, prompting collectivistic and individualistic values in European- and Asian-Canadian students, respectively, the authors found significant dissimilarities in participant's personal identity and attitudes towards success. Thus, even if individualism and collectivism are fixed conditions at a national level, at an individual level independence and interdependence are malleable.

In sum, independence and interdependence are two separated and malleable aspects of individuals' psychology. Each self-construal holds a particular set of schemas (e.g., "It is Ok to disagree with others" vs. "I must agree with others"; Ramirez, 1999; Triandis, 1989), schemas that reflect individualism and collectivism at a national level.

III. Hypotheses

3.1. Priming Individualism and Collectivism

By thinking of individualism and collectivism or, more precisely, of independence and interdependence as malleable and separated dimensions, it is easier to appreciate why priming can alter these self-construals.

Several experiments have primed individualism and collectivism thru diverse techniques, thus activating independent and interdependent schemas (e.g., Gardner et al., 1999; Kimmelmeier & Yan-Ming Cheng, 2004; Trafimow et al., 1991; White et al., 2006). This thesis draws on the cited experiments to investigate if the appraisal process can successfully assimilate priming manipulations to alter discomfort towards the appraisal process and leniency. Priming individualism and collectivism should affect measures of self-construals, both differently and in the desired direction. Specifically, independence will decrease and interdependence will increase under collectivistic priming conditions, whereas independence will increase and interdependence will decrease under individualistic priming conditions. We stated these inquiries as manipulation checks.

Manipulation Check: Measures of self-construals will be affected differently and in a desired direction according to each priming manipulation conditions.

Manipulation Check A: Independence will decrease and interdependence will increase under collectivistic priming conditions.

Manipulation Check B: Independence will increase and interdependence will decrease under individualistic priming conditions.

In addition to these manipulation checks, we formulate hypotheses linking the self-construals to discomfort towards the appraisal process and leniency during the rating phase of the appraisal.

3.2. Self-Construals and Discomfort

The consensus view is that the appraisal of others is highly demanding for raters, comprising emotional, psychological, and social pressures that generate feelings of adversity, resistance, and fear towards appraisal activities. This amalgam of emotions is what scholars describe as *discomfort towards the appraisal process*.

The concept of discomfort towards the appraisal process has its origins in the job compatibility theory. According to this theory, employees prefer to work in job positions whose characteristics suit employees' personal needs and motivations; otherwise, there would be a mismatch leading to discomfort (Bernardin, 1987; Villanova & Bernardin, 1990). Villanova et al. (1993) translated the concept of discomfort to PA. The authors propound that raters are likely to feel discomfort towards the appraisal process because their needs and motivations are constantly at odds with the appraisal.

There are reasons to believe that independence and interdependence self-construals differ in their relation to discomfort towards the appraisal process since each carries a unique set of needs and motivations (Saffie-Robertson & Brutus, 2013). The first argument in favor of this premise rests on raters' attitude towards social status. In both individualistic and collectivistic cultures, people care about social status but not for the same motives. For independent identities, social status relates to personal achievement, which must grow in comparison to that of others; whereas for interdependent identities, social status refers to roles within groups that must be preserved (Markus & Kitayama, 1991; Triandis, McCusker, & Hui, 1990). Research on self-enhancement offers clues on these divergences. Independent identities accentuate positive traits of themselves (e.g., their talent), and interdependent identities accentuate positive qualities of their social groups or collectives (e.g., their hockey team, their nation; Kurman, 2001; Sedikides, Gaertner, & Toguchi, 2003). In the appraisal process, raters feel discomfort when they perceived threats to their status (Bernardin & Villanova, 2005; Tziner & Murphy, 1999). For instance, some raters reason that they will not be able to prove to themselves that they are competent bosses if they give low rating scores to subordinates (Longenecker et al., 1987; Ramirez, 1999). Other raters reason that their membership to the group is in danger if they give low ratings to peers or subordinates (Longenecker et al., 1987). While the first example would be valid to predominantly independent raters, the later would be valid to predominantly interdependent raters, yet it is not clear-cut which

self-construal feels more discomfort due to social status. We can merely speculate interdependent identities would feel more discomfort as they primarily care about being accepted, and they would be facing social pressures. In comparison, independent identities would feel less discomfort because they overlook others' opinions, and thus they are not affected by social pressures (see Hofstede, 1993; Markus & Kitayama, 1991; Triandis et al., 1990).

A second, more robust argument concerns raters' attitudes towards interpersonal conflicts. Interdependent identities value social harmony as a state that must be conserved and cultivated (Earley, Gibson, & Chen, 1999; Hofstede, 2011; Hofstede & Bond, 1984; Triandis et al., 1990). This tendency replicates a great need for membership, sympathy, and blame avoidance (Markus & Kitayama, 1991), and is sufficiently strong as to subordinate personal opinion to the beliefs of the collective (Hofstede, 1993; Markus & Kitayama, 1991; Triandis et al., 1990). On the contrary, independent identities are not afraid of harmony disruptions and openly deal with such problems to eradicate misunderstandings, apprehensions or distrusts (Markus & Kitayama, 1991). Within the appraisal process, it has been claimed that raters feel discomfort when they believe that low ratings lead to conflicts (Bernardin & Villanova, 2005; Tziner & Murphy, 1999). Many raters believe that ratees are prepared to express disagreement with rating scores (Waung & Highhouse, 1997). Such hesitations are justified. Longenecker et al. (1987) report cases of ratees complaining against their raters due to low rating scores. Thus, it can be claimed that interdependent identities are more likely to feel discomfort towards the appraisal process than independent identities because they fear interpersonal conflicts.

Finally, the self-construals not only differ in their motivation to protect themselves, both also differ in their motivation to aid others. Driven by collective goals, interdependent identities are prone to help others since they are inclined to see others' problems as own (Earley & Gibson, 1998; Markus & Kitayama, 1991). This affinity is consistent with Cross, Bacon, & Morris's (2000) study, which shows that participants displaying high scores of interdependence make decisions based on others' necessities and desires. What is more, the available evidence relates interdependence to higher levels of empathy (e.g., Duan, Wei, & Wang, 2008; Heinke & Louis, 2009). In the appraisal process, there are many reasons why raters want to protect ratees. Raters know that ratees could earn less income, lose motivation or lose their jobs as a result of low rating scores (Longenecker et al., 1987). On these grounds, it can be assumed that interdependent identities feel more

discomfort towards the appraisal process than independent identities because they recognize that their appraisals can harm ratees' welfare.

In sum, it is logical to assume that, in the overall, independent identities tend to feel less discomfort towards the appraisal process than interdependent identities (Saffie-Robertson & Brutus, 2013), a situation that should be reflected during the rating phase of the appraisal. Therefore, we hypothesize that discomfort towards the rating process will be greater under the collectivistic priming conditions than under individualistic priming conditions.

Hypothesis 1: Discomfort towards the rating process will be greater under the collectivistic priming conditions than under individualistic priming conditions.

3.3. Discomfort and Leniency

Leniency comes in many forms, probably depending on the phases of the appraisal process. In the rating process, for instance, such indulgence comes in the shape of rating elevation, which is best described as a conscious tendency to inflate evaluations (Bass, 1956).

Scholars have observed various antecedents of leniency, including attitudinal and motivational factors (see Tziner, Murphy, & Cleveland, 2005). These factors, however, appear to moderate rather than generate leniency (cf. Bernardin et al., 2000; Tziner & Murphy, 1999). Conversely, Villanova et al. (1993) attempted to find the core causes of leniency. The authors reasoned that only a stable antecedent could generate an equally stable behavior such as leniency. For the authors, this stable antecedent was discomfort. As stated by the job-compatibility theory, discomfort results in employees displaying less immersion in the tasks of the job (Bernardin, 1987). For instance, employees feeling excessive discomfort, for instance, may display high rates chronic lateness (see Blau, 1994), and personal web usage during work hours (see Kim & Byrne, 2011). Analogically, discomfort towards the appraisal process leads to less job involvement in the form of leniency (Villanova et al., 1993), a position that is supported by the evidence (e.g., Saffie-Robertson & Brutus, 2013; Smith et al., 2000; Tziner & Murphy, 1999).

Discomfort is present during the rating process and should lead to less job involvement in the form of rating elevation. Therefore, we hypothesize that discomfort towards the rating process is positively related to rating elevation.

Hypothesis 2: Discomfort towards the rating process of the appraisal is positively related to rating elevation.

It is challenging to pinpoint which self-construal is more prone to elevate rating scores. So far, few studies have attempted to link these variables, but none offers a complete overview of the mentioned issue. Oishi et al. (2000) suggest that interdependent identities are more lenient because they are more likely to attribute ratees' bad performance to external factors, but the authors do not indicate how these attributions rebound in rating scores. Ng, Koh, Ang, Kennedy, & Chan (2011) do analyze rating elevation and link it to individualism and collectivism. The authors show that the higher the levels of collectivism, the higher the rating scores, but they operationalize individualism and collectivism as a unidimensional construct. Saffie-Robertson & Brutus (2013) evidenced that interdependence is positively related to rating elevation, but the authors do not include independence in their model. Since we expect a significant discomfort towards rating and rating elevation interaction, we anticipate differences in rating elevation between the collectivistic and individualistic priming conditions.

Hypothesis 3: Rating elevation will be greater under the collectivistic priming conditions than under individualistic priming conditions.

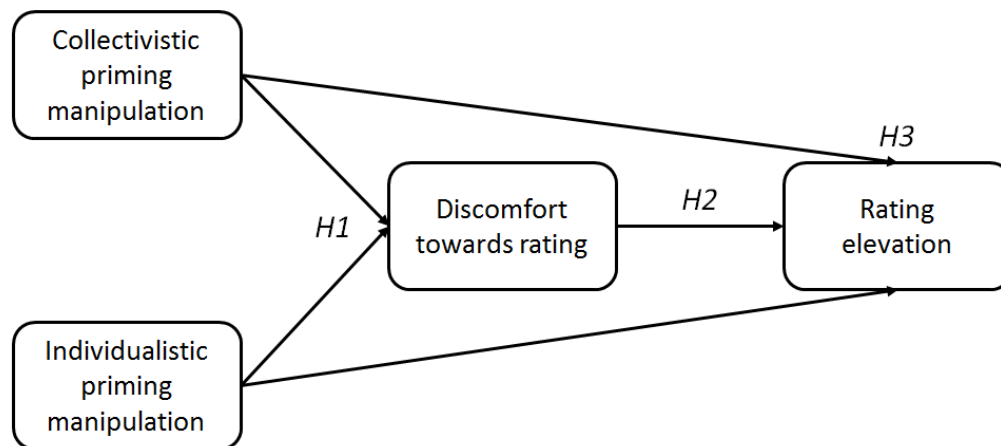


Figure 4: Theoretical model

IV. Methodology

4.1. Sample

We designed a pretest-posttest experiment combining peer ratings and priming manipulations. Data was collected from undergraduate students via two electronic questionnaires. Students received half a credit for each completed questionnaire. Participation was voluntary, and students could withdraw from the experiment freely at any moment. All the students enrolled in the same course (Organizational Behavior and Theory - Comm222). As part of the course requirements, students engaged in a team project that included real peer ratings. The course professor used these ratings to compute students' grades.

A total of 310 students completed both questionnaires; however, we removed 26 students from the study because they did not deliver matching information in two distinct questions in which we asked participants to report the names of their teammates. We discarded another 6 participants due to evident careless responses, as detected by sequences of 24 or more consecutive identical entries (see Meade & Craig, 2012). Appendix 4 details this issue. Thus, the final sample consisted of $N = 278$ students, whose average years in the program was 1.68 and average GPA was 3.07.

4.2. Measures

Independence and Interdependence

To measure independence and interdependence, we employed Singelis's (1994) Self-Construal Scale (SCS), which is a bi-dimensional scale designed to measure individual rather than cultural differences. The whole scale consisted of 24 items re-estimated from Bhawuk and Brislin (1992), Cross and Markus (1991), and Yamaguchi (1994). Of these items, 12 measured independence and 12 measured interdependence. Items included: "My happiness depends on the happiness of those around me", "I'd rather say 'No' directly than risk being accepted", and "Being able to take care of myself is a primary concern for me." For this scale, we employed Likert-type scales ranging from 1 = *strongly agree* to 7 = *strongly disagree*. Results showed acceptable reliability for pre-test independence and interdependence (both $\alpha = .87$), as well as for post-test independence and interdependence ($\alpha = .86$ and $\alpha = .84$, respectively).

Rating Elevation

As mentioned before, all the students were enrolled in the same course that encompassed a team project and the course professor used peer ratings to compute students' grades. Following Villanova et al.'s (1993) methodology, we operationalized rating elevation as the average peer rating given by one student to each of his or her teammates in the course project. Participants rated each peers' individual performance in 2 items: "Overall, I am satisfied with the performance of this teammate in the group project" and "The performance of this teammate has been, in general, excellent", with Likert-type scales ranging from 1 = *strongly agree* to 7 = *strongly disagree*. We then averaged all the ratings given to all peers of each participant in both items. The reliability of this measure was high ($\alpha = .92$).

Course resources ratings

In addition to rating peers, we asked participants to rate the extent to which the textbook, the class environment (i.e., light, heat), and the tech equipment (i.e., projector, clicker) were adequate to learn the course material. Participants responded on a Likert-type scale ranging from 1 = *strongly agree* to 7 = *strongly disagree*.

Discomfort towards Rating Peers

We assessed discomfort towards rating using Saffie-Robertson and Brutus's (2013) Discomfort with Peer Evaluation Scale (DPE). This scale is a re-statement of Villanova et al.'s (1993) Performance Appraisal Discomfort Scale (PADS) and Bernardin and Villanova's (2005) Performance Appraisal Self-Efficacy Scale (PASES). Participants read the question "When evaluating the performance of your group members or peers, how comfortable do you feel...?" and responded to 3 items: "Evaluating peer's performance independent of your personal like or dislike for that person," "Assigning ratings that are accurate but that you know may disagree with your peer's expectations," and "Evaluating your peers according to their performance." For this assessment, we employed Likert-type scales ranging from 1 = *strongly agree* to 5 = *strongly disagree*. The reliability of this measure was acceptable ($\alpha = .85$).

Discomfort towards Rating Course Resources

We assessed discomfort towards rating course resources with 2 items from the DPE scale. These items were: “Evaluating the resources independent of your personal like or dislike for these”, and “Assigning ratings that are accurate but that you know may disagree with other people’s expectations”. Again, we employed Likert-type scales ranging from 1 = *strongly agree* to 5 = *strongly disagree*. The reliability of this measure was acceptable ($\alpha = .83$).

Control variables

Age: There is evidence indicating that participants’ age may interfere with our analysis. For instance, Cleveland and Landy's (1981) study with a sample of managers working for the manufacturing industry, revealed a small but significant age effect only on 1 out of 8 performance dimensions. Conversely, Griffeth and Bedeian (1989) analyzed 464 supervisor-subordinate dyads from an accounting firm. Their results show small but significant age effects indicating that younger raters provided lower rating scores than senior raters. The average age of the participants in our sample was 21.96.

Gender: There is also evidence indicating that participants’ gender may interfere with our analysis. Shore and Thornton (1986) and Landy and Farr (1980) report several studies showing that women give higher ratings than men (e.g., Hamner, Kim, Baird, & Bigoness, 1974; London & Poplawski, 1976). In a recent example, Bernardin & Villanova (2005) also found females rating higher than males, though differences were not significant. In our sample, of the 278 participants, 57.2% were females and 42.8% were males.

Impression Management: In addition to age and gender, we included *impression management* (IM) as a control variable since raters may evaluate ratees guided by the necessity to look like a “good partner” (Paulhus, 1991). To measure IM we used 12 items from Paulhus's (1988, as cited by Paulhus, 1991) Balance Inventory of Desirable Responding (BIDR). This scale included many reversed-coded items such as: “There have been occasions when I have taken advantage of someone”, “I have said something bad about a friend behind his or her back”, and “I have done things that I don’t tell other people about.”. Participants responded on a Likert-type scale ranging from 1 = *strongly agree* to 5 = *strongly disagree*. Following Paulhus’s (1991)

instructions, we counted all the *strongly agree* responses to calculate IM scores. The reliability of this measure was low ($\alpha = .63$).

4.3. Ethics Review

Given that we pretend to influence participants' cognition, we would like to provide an ethics review before continuing to the next section. Firstly, we must clarify that priming manipulations place no risk to participants since its effects are limited and only last a few minutes (Bargh & Huang, 2009; Srull & Wyer, 1979). Furthermore, as part of the research procedures in our institution, we obtained a Certification of Ethical Acceptability for Research Involving Human Subjects granted by the Human Research Ethics Committee in our institution. The Committee originally approved this certificate on March 27th, 2015, and then revalidated it on February 16th, 2016, for a period of one year (see Appendix 5). This study collected data within the certificates' validation periods. Therefore, we guarantee that the procedures employed in this study meet the pertinent ethical requirements.

4.4. Procedure

At the beginning of the semester, students formed teams of 3 to 6 members as part of the term project. In the second half of the semester, participants received an e-mail with their first electronic questionnaire. The first part of the questionnaire consisted of demographic (gender, age) and academic information (student ID, years in the program). In the second part, participants responded to Paulhus's (1991) BIDR and Singelis's (1994) SCS.

Two weeks later, participants received a second electronic questionnaire. The first part of this questionnaire consisted of either individualistic or collectivistic priming manipulations. We randomly assigned participants to one of these conditions. We employed a priming technique called *Pronoun Circling* in which participants read a short passage and circled all its pronouns (Oyserman & Lee, 2008). The passages contained either singular pronouns (e.g., I, myself, my) or plural pronouns (e.g., we, ourselves, our) to prime individualism and collectivism respectively. Around half of the participants (50.7%) were primed with collectivism and the rest (49.3%) with individualism. As stated in the instructions, participants carefully read the entire passage and digitally circled all the 19 pronouns after proceeding to the next part of the questionnaire.

The passage was taken from Gardner et al. (1999) and is as follows:

I go to the city often. My anticipation fills me as I see the skyscrapers come into view. I allow myself to explore every corner, never letting an attraction escape me. My voice fills the air and street. I see all the sights, I window shop, and everywhere I go I see my reflection looking back at me in the glass of a hundred windows. At nightfall, I linger, my time in the city almost over. When finally I must leave, I do so knowing that I will soon return. The city belongs to me.

Following the priming intervention, participants once again completed Singelis's (1994) SCS. In the last parts of the questionnaire, participants rated their teammates' performance in the project and the course resources. We altered the order of these rating tasks so that half of the participants primed with individualism and half of the participants primed with collectivism rated their peers first and then the course resources. Conversely, the rest rated the course resources first and then their peers. Participants completed DPE instruments right after each rating task. We summarize these sequences in Figure 5. We expected our priming manipulations to affect peer ratings rather than not course resources ratings.

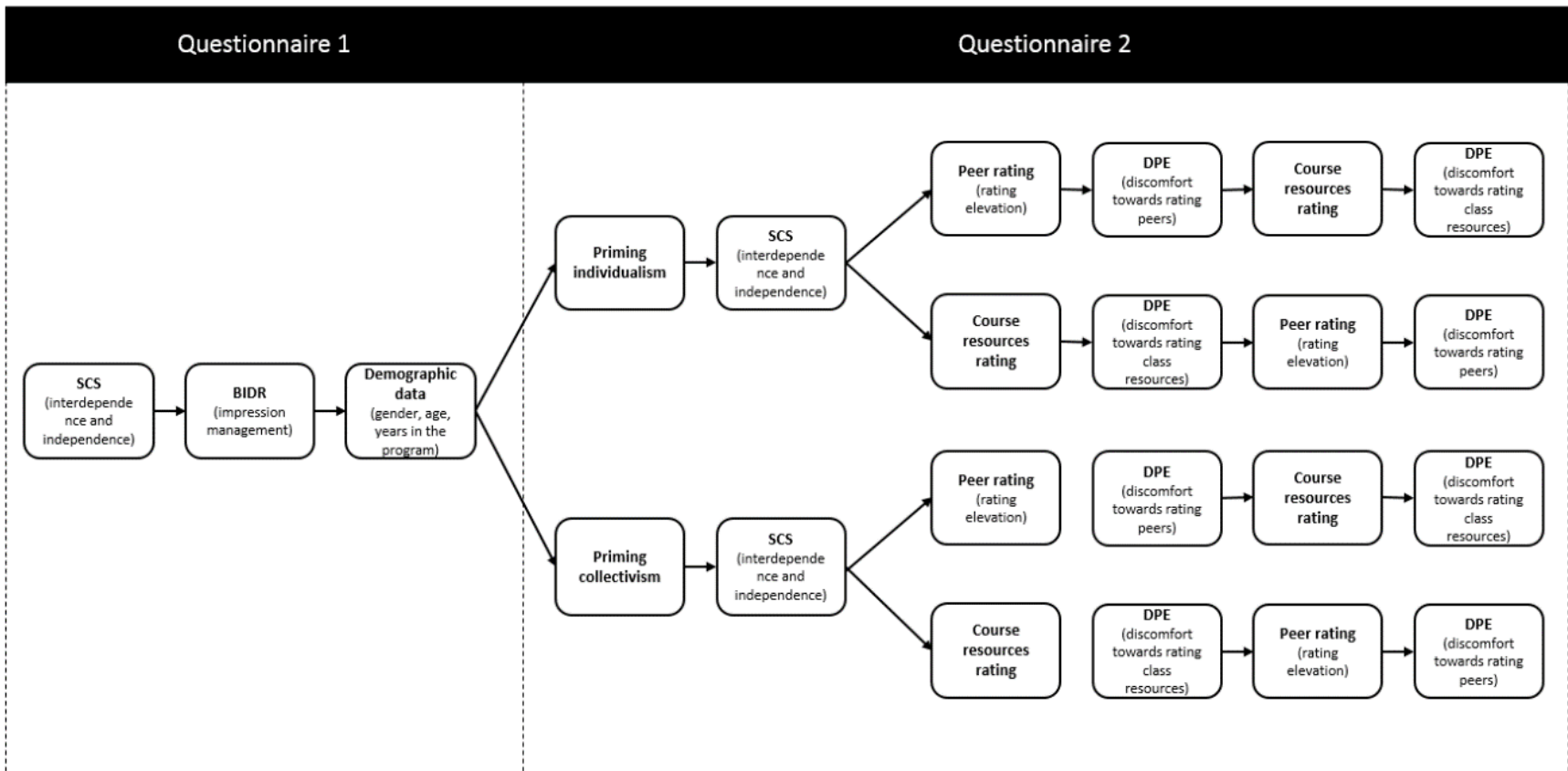


Figure 5: Sequences of the study

V. Analysis

5.1. Descriptive Statistics

The first step performed in our statistical analysis was to reverse all the entries contained in the data, for the maximum scores to denote the uppermost level of the measured constructs. We then computed correlations, general means, and other central tendency measures.

As shown in Table 1, pre-test means barely differed from one another, with $M = 4.86$ ($SD = .06$) for pre-interdependence and $M = 4.83$ ($SD = .07$) for pre-independence. Both means increased over time, with $M = 5.06$ ($SD = .05$) for pre-interdependence, and $M = 5.08$ ($SD = .59$) for pre-independence. A close inspection of the variances of these variables revealed that the data was more dispersed for the pre-test measures, with $\sigma^2 = 1.15$ for pre-interdependence and $\sigma^2 = 1.16$ for pre-independence, than for the post-test measures, with $\sigma^2 = .78$ for post-interdependence and $\sigma^2 = .95$ for post-independence. This give the impression that the priming manipulations refined participants' responses towards the mentioned constructs. Pre-interdependence and pre-independence were positively correlation, $r = 0.62$, $p < .01$. The same for post-interdependence and post-independence, $r = .56$, $p < 0.01$. Pre- and post-test measures were positively correlated as well, with $r = .33$, $p < .01$, for pre- and post-interdependence, and $r = .34$, $p < .01$, for pre- and post-independence.

As expected, rating elevation displayed high scores with means $M = 5.86$ ($SD = .08$), while mean score for discomfort towards rating peers was $M = 4.19$ ($SD = .06$). These variables were moderately correlated, $r = .46$, $p < .01$. Discomfort towards rating peers exhibited stronger correlation with post-independence, $r = .30$, $p < .01$, than with post-interdependence, $r = .15$, $p < .05$, suggesting that our predictions were erroneous. What is more, both post-test measures showed stronger correlation with rating elevation than with discomfort towards rating peers, with $r = .24$, $p < .01$ for post-interdependence, and $r = .35$, $p < .01$ for post-independence. Discomfort towards rating course resources ($M = 4.10$, $SD = .49$) was also positively correlated, with $r = .13$, $p < .05$ for post-interdependence and $r = .26$, $p < .01$ for post-independence. The same applied for ratings of course resources ($M = 5.22$, $SD = 1.41$), with $r = .17$, $p < .01$ for post-interdependence and $r = .26$, $p < .01$ for post-independence.

Table 1.

Central tendency measures and bivariate correlation matrix

| | Measure | <i>M</i> | <i>SD</i> | σ^2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|--|----------|-----------|------------|--------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 1 | Age | 21.96 | 3.11 | 9.65 | - | | | | | | | | | |
| 2 | Gender | .57 | .50 | .25 | -.20** | - | | | | | | | | |
| 3 | IM | 1.99 | 1.92 | 3.68 | .12* | .01 | - | | | | | | | |
| 4 | Pre-interdependence | 4.86 | 1.07 | 1.15 | .04 | -.05 | .15* | - | | | | | | |
| 5 | Pre-independence | 4.83 | 1.08 | 1.16 | .09 | -.13* | .10 | .62** | - | | | | | |
| 6 | Post-interdependence | 5.06 | .88 | .78 | -.05 | .01 | .07 | .33** | .13* | - | | | | |
| 7 | Post-independence | 5.08 | .98 | .95 | .08 | -.07 | .07 | .09 | .34** | .56** | - | | | |
| 8 | Discomfort towards rating peers | 4.19 | .92 | .84 | .01 | -.10 | -.03 | .08 | .13* | .15* | .30** | - | | |
| 9 | Rating elevation | 5.86 | 1.36 | 1.85 | -.04 | -.04 | -.07 | .19** | .20** | .24** | .35** | .46** | - | |
| 10 | Discomfort towards rating course resources | 4.10 | .94 | .89 | .13* | .02 | -.09 | .03 | .09 | .13* | .26** | .61** | .39** | - |
| 11 | Course resource ratings | 5.22 | 1.41 | 1.98 | -.02 | .07 | -.12 | -.05 | -.06 | .17** | .26** | .38** | .38** | .45** |

Note. * $p < .05$, ** $p < .01$

5.2. Manipulation Checks

A central task in this thesis was to determine if the measures of interdependence and independence change differently and in the desired direction as a result of priming manipulation conditions. Since there is no formal multivariate analysis of two within-subject factors and one between-subject factor with repeated measures, we decided to conduct single two-way mixed ANOVA for each self-construal.

Manipulation Check for Interdependence

For this procedure, we analyzed the data from the 278 participants exclusively to compare measures of interdependence over time (within-subject factor) between the two priming conditions (between-subject factor).

Concerning the assumptions of the analysis, there were 16 outliers in the data, which had studentized residual values below -3. Our primary reports, together with tests of assumptions and tables of results, provide results with outliers removed; but we also provide results with outliers⁷. Z-skewness scores at 99% of confidence revealed that 3 out of 4 cells were not approximately normally distributed. Pre-interdependence was moderately skewed in a negative direction, with skewness of -.95 ($SE = .21$), kurtosis of .82 ($SE = .43$) under the collectivistic priming conditions; and skewness of -.90 ($SE = .21$), kurtosis of .32 ($SE = .42$) under the individualistic priming conditions. Post-interdependence was also moderately and negatively skewed under the individualistic conditions, with skewness of -.65 ($SD = .21$), kurtosis of -.18 ($SD = .42$) and under the collectivistic conditions, with skewness of -.35 ($SD = .21$), kurtosis of -.09 ($SD = .43$). Our main reports show the results with non-normalized data, but we also report result with transformations in all cells⁸. There was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$), as well as homogeneity of covariances, as assessed by Box's

⁷ We considered all the outliers in this study as genuinely unusual values since there was no data entry or measurement error. Our main reports through this study, along with reports of assumption and tables, show results with no outliers, but we also provide results with outliers.

⁸ We transformed the data by subtracting each pre- or post-interdependence score from the greatest value of pre- and post- interdependence plus 1.

test of covariance matrices ($p = .825$). There was no need to test sphericity since there were only two categories in the between-subjects factor, so the degrees of freedom were equal to zero.

As indicated in Table 2, there was no interaction effect between the priming interventions and time on interdependence, $F(1, 260) = .05, p = .792, \eta^2 < .001$. This result differs neither when considering outliers, $F(1, 276) = .001, p = .975, \eta^2 < .001$, nor when normalizing the data, $F(1, 260) = .07, p = .79, \eta^2 < .001$. Therefore, scores of interdependence did not differ over time between the two priming manipulation conditions. With reference to the main effect of time, results revealed a significant difference in mean interdependence at the pre and post time points, $F(1, 260) = 12.04, p < .001, \eta^2 = .044$, with participants scoring an average of .18, 95% CI [.08 to .28] higher in the post-test. There was not a significant difference in mean post-interdependence between the two groups, $F(1, 260) = 2.69, p = .102, \eta^2 = .010$. In sum, we were expecting an increase of interdependence over time due to collectivistic priming and a decrease over time due to individualistic priming; however, none of the priming conditions yielded to the expected results.

Table 2.
Results of two-way mixed ANOVA for interdependence

| | Priming manipulation condition | | | | | |
|----------------------|--------------------------------|-----------|----------|---------------|-----------|----------|
| | Collectivism | | | Individualism | | |
| | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> |
| Pre-interdependence | 5.05 | .88 | 128 | 4.88 | .92 | 134 |
| Post-interdependence | 5.22 | .70 | 128 | 5.07 | .75 | 134 |
| | | | | <i>F</i> | df | η^2 |
| Time*group | | | | .05 | 1, 260 | .000 |
| Time | | | | 12.04** | 1, 260 | .044 |
| Group | | | | 2.69 | 1, 260 | .010 |

Note. * $p < .05$, ** $p < .001$

Manipulation Check for Independence

For this procedure, we analyzed data from the 278 participants exclusively for comparing measures of independence over time (within-subject factor) between the two priming conditions (between-subject factor).

We identified 14 outliers, which had studentized residual values below -3. Again, our main reports ignore the outliers, but we also provide results with outliers. Z-skewness scores at 99% of confidence revealed that measures of independence were approximately normally distributed in 3 out of 4 cells. Post-independence had skewness of -.32 ($SE = .21$), kurtosis of -.07 ($SE = .21$) under the collectivistic priming conditions; and skewness of -.31 ($SE = .21$), kurtosis of -.25 ($SE = .41$) under the individualistic conditions. Pre-independence had skewness of -.52 ($SE = .21$), kurtosis of -.08 ($SE = .42$) under collectivistic conditions. Under the individualistic conditions, pre-independence had z-skewness (-2.78), barely away from the accepted limit of ± 2.58 , with skewness of -.58 ($SE = .21$) and kurtosis of -.07 ($SE = .41$). No transformation was performed. There was homogeneity of variances, as assessed by Levene's test ($p > .05$), as well as homogeneity of covariances, as assessed by Box's test ($p = .030$).

Table 3.
Results of two-way mixed ANOVA for independence

| | Priming manipulation condition | | | | | |
|-------------------|--------------------------------|-----------|----------|-----------------|-----------|----------|
| | Collectivistic | | | Individualistic | | |
| | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> |
| Pre-independence | 4.91 | 1.00 | 129 | 4.91 | .91 | 135 |
| Post-independence | 5.21 | .77 | 129 | 5.15 | .85 | 135 |
| | | | | <i>F</i> | <i>df</i> | η^2 |
| Time*group | | | | .26 | 1, 262 | .000 |
| Time | | | | 22.21** | 1, 262 | .078 |
| Group | | | | .07 | 1, 262 | .000 |

Note. * $p < .05$, ** $p < .001$

As indicated in Table 3, there was no interaction effect between the priming interventions and time on independence, $F(1, 262) = .26, p = .612, \eta^2 < .001$. The same results were obtained when considering outliers, $F(1, 276) = .01, p = .936, \eta^2 < .001$. Therefore, scores of independence did not differ over time between the two priming conditions. There was a significant difference in mean independence at the pre and post time points, $F(1, 262) = 22.21, p < .001, \eta^2 = .078$, with participants scoring an average of .275, 95% CI [.16 to .39] higher in the post-test. There was not a significant difference in mean post-independence between the two groups, $F(1, 262) = .27, p = .601, \eta^2 < .001$. In sum, we were expecting a decrease in interdependence over time due to individualistic priming and an increase in independence over time due to collectivistic priming; however, none of the priming conditions yielded to the expected results.

5.3. Hypotheses Testing

Comparing Discomfort between the Priming Conditions

To test Hypothesis 1, which stated that discomfort towards the rating process would be greater under collectivistic priming conditions than under individualistic priming conditions, we ran two independent-samples t-test to find differences in mean discomfort towards the rating.

Concerning the assumptions of the analysis, there were 12 outliers with studentized residual values below -3. Our primary reports provide results with outliers removed, but we also provide results with outliers. Discomfort towards rating peers was moderately skewed in the negative direction in both cells of analysis. There was skewness of -.95 ($SE = .21$), and kurtosis of .43 ($SE = .42$) under the collectivistic conditions; and skewness of -.92 ($SE = .21$), kurtosis of .171 ($SE = .41$) under the individualistic conditions. Because t-tests are robust to non-normalization, our main reports show the result with no transformation, but we also report results with transformations⁹. There was homogeneity of variance for discomfort towards the rating process for collectivistic and individualistic conditions, as assessed by Levene's test of equality of variances ($p = .860$).

⁹ We subtracted each discomfort towards rating peers score from the highest score in the data plus 1.

Table 4.

Results of independent t-test and descriptive statistics for discomfort towards rating peers

| | Priming manipulation condition | | | | | | 95% CI for mean difference | t | df |
|--|--------------------------------|-----------|----------|-----------------|-----------|----------|----------------------------------|-------|-----|
| | Collectivistic | | | Individualistic | | | | | |
| | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> | | | |
| Discomfort towards rating peers | 4.28 | .69 | 129 | 4.38 | .65 | 137 | -.26, .06 | -1.26 | 264 |
| Discomfort towards rating course resources | 4.14 | .82 | 132 | 4.27 | .73 | 136 | -.13, .10 | -1.36 | 266 |

Note. * $p < .05$

According to the results, discomfort towards rating peers mean score was $M = 4.28$ ($SD = .687$) for participants primed with collectivism ($n = 129$), and $M = 4.38$ ($SD = .65$) for participants primed with individualism ($n = 137$); but there was a no statistically significant difference among the two priming conditions, $t(264) = -1.26$, $p = .209$. The same was true when considering outliers, $t(276) = -1.70$, $p = .090$, and when considering transformations $t(263) = 1.47$, $p = .144$. Hence, Hypothesis 1 was not supported, a predictable outcome given that the priming manipulation failed to alter either interdependence or independence. No significant difference was found when comparing discomfort towards rating course resources, $t(266) = -1.36$, $p = .176$.

Discomfort towards Ratings as Predictor of Rating Elevation

We conducted hierarchical multiple regression analysis to test Hypothesis 2, which predicted that discomfort towards the rating process of the appraisal would be positively related to rating elevation. Age, gender, and IM entered as control variables.

Concerning the assumptions of the analysis, there was independence of residuals, as assessed by a Durbin-Watson statistic of 1.88. There was a linear relationship between discomfort towards rating and rating elevation, as determined by visual inspection of partial regression plots. There was homoscedasticity, as determined by visual inspection of a plot of studentized residuals contrasted with unstandardized predicted values. There were no leverage point values above 0.2,

nor Cook's distance values above 1 evidencing highly influential points in the data. There were 5 outliers with studentized deleted residuals below -3. We provide results with outliers and without outliers. The residuals were approximately normally distributed, as assessed by visual inspection of a histogram with a superimposed normal curve and a P-P plot. We report these plots in Appendix 6. There was no need to test multicollinearity since we were working with one independent variable.

Concerning the core analysis, we first entered the control variables in Model 1. None of the control variables predicted rating elevation $F(3, 269) = .69, p = .56$, as indicated in Table 5. This result did not differ when considering outliers $F(3, 274) = 1.78, p = .54$. We then added discomfort towards rating peers into Model 2. The overall model was statistically significant, $F(4, 268) = 18.78, p < .001$, with $R^2 = .22$ and $\Delta R^2 = .21$. An inspection of coefficients indicated that discomfort towards rating peers was significantly related to rating elevation, $\beta = .69, t(270) = 8.52, p < .001$. This result did not differ when considering outliers in the analysis with $R^2 = .17$ and $\Delta R^2 = .16, F(4, 273) = 13.87, p < .001$; and with discomfort towards rating peers as predictor of rating elevation $\beta = .60, t(277) = 7.01, p < .001$. Therefore, Hypothesis 2 was supported.

Table 5.
Results of hierarchical multiple regression

| | Model 1 | | | Model 2 | | |
|---------------------------------|---------|--------|-----|---------|---------|-----|
| | β | t | SE | β | t | SE |
| Age | -.02 | -.60 | .03 | -.02 | -.64 | .02 |
| Gender | -.13 | -.76 | .17 | -.002 | .01 | .15 |
| IM | -.05 | -1.04 | .04 | -.04 | -.91 | .04 |
| Discomfort towards rating peers | | | | .69 | 8.52** | .08 |
| <i>F</i> | | 1.64 | | | 18.78** | |
| df | | 3, 268 | | | 4, 272 | |
| R^2 | | .02 | | | .22 | |
| ΔR^2 | | .01 | | | .21 | |

Note. * $p < 0.05$, ** $p < .001$

Comparing Rating Elevation among the Priming Conditions

To test Hypothesis 3, which stated that rating elevation would be greater under the collectivistic priming conditions than under individualistic priming conditions, we ran two independent-samples t-test.

Concerning the assumption of the analysis, we found 10 outliers, which had studentized residual values below -3. Our primary reports provide results with outliers removed, but we also provide results with outliers. Rating elevation was not approximately normally distributed in any cell of the analysis, with a substantial skewness in the negative direction. There was skewness of -1.17 ($SE = .21$), kurtosis of .57 ($SE = .42$) under the collectivistic conditions; and skewness of -1.10 ($SE = .21$), kurtosis of .44 ($SE = .41$) under the individualistic condition. We expected this distribution given the nature of rating elevation. Our main reports show the result with no transformation, but we also provide results with transformations¹⁰. There was homogeneity of variance for collectivistic and individualistic conditions, as assessed by Levene’s test of equality of variances ($p = .317$).

Table 6.
Results of independent t-test and descriptive statistics for rating elevation

| | Priming manipulation condition | | | | | | 95% CI for mean difference | t | df |
|--------------------------|--------------------------------|-----------|----------|-----------------|-----------|----------|----------------------------|--------|-----|
| | Collectivistic | | | Individualistic | | | | | |
| | <i>M</i> | <i>SD</i> | <i>n</i> | <i>M</i> | <i>SD</i> | <i>n</i> | | | |
| Rating elevation | 6.08 | 1.05 | 131 | 5.95 | 1.16 | 137 | -1.31, .40 | 1.00 | 266 |
| Course resources ratings | 5.24 | 1.19 | 130 | 5.55 | 1.09 | 136 | -.59, -.04 | -2.23* | 264 |

Note. * $p < .05$

¹⁰ We subtracted each rating elevation score from the highest score in the data plus 1. We then calculated the Lg10 of this subtraction.

According to the results, rating elevation mean score was $M = 6.08$ ($SD = 1.05$) for participants primed with collectivism ($n = 13$), and $M = 5.95$ ($SD = 1.16$) for participants primed with individualism ($n = 137$); but there was no statistically significant difference among the two priming conditions, $t(266) = 1.009$, $p = .319$. The same was true when considering the outliers, $t(276) = .43$, $p = .669$, and transformations $t(266) = -.90$, $p = .370$. Hence, Hypothesis 3 was not supported, a predictable outcome given that the priming manipulation failed to alter either interdependence or independence. A significant difference was found when comparing ratings of course resources, $t(264) = -2.23$, $p = .027$.

5.4. Further Analysis

The manipulation checks evidenced that neither interdependence nor independence differed over time in the desired direction due to the priming manipulations. Therefore, mean scores of discomfort towards rating peer and rating elevation did not differ between the two conditions. Frustrated by these results, we conducted additional analysis to determine whether discomfort towards rating peers is greater for predominantly interdependent raters (i.e., those scoring higher in interdependence than in independence) than for predominantly independent raters (i.e., those scoring higher in independence than in interdependence). Results from this analysis are far from being conclusive since we cannot guarantee null contamination due to the priming conditions, but may encourage future research.

Predominantly independent participants, those scoring higher in post-interdependence than in post-independence, were dummy coded as 1 and predominantly interdependent participants, those scoring higher in post-independence than in post-interdependence, were coded as -1. These were our two groups of analysis to run a new independent-sample t-test. There were 7 participants whose difference between independence and interdependence was exactly zero, so we removed them from the analysis.

Since we conjectured that independent identities tend to feel less discomfort towards the appraisal process than interdependent identities, it was logical to assume that predominantly interdependent raters would feel more discomfort than predominantly independent raters. However, results showed that predominantly independent participants ($n = 127$) scored 0.15 95%

CI [.001, .31] higher in discomfort towards rating peers than interdependent participants ($n = 128$). What is more, this difference was significant among both groups, $t(253) = -1.97, p = .049$. On the other hand, predominately interdependent participants ($n = 131$) scored .41 95% CI [.10, .71] higher than predominately independent participants ($n = 259$), a significant difference among both groups, $t(259) = -2.62, p = .009$. Therefore, predominantly independent raters did provide lower ratings than predominantly interdependent raters, they did feel more discomfort towards the rating process. We attempt to make sense of such results in the Future Research section.

VI. Discussion

6.1. General Discussion

Our analysis indicates that neither priming collectivism nor priming individualism had the anticipated impact on independence and interdependence. There was a significant rise in both self-construals over time under both priming conditions, but it is uncertain if priming caused such trend since our experiment lacked a control group. These results are inconsistent with previous investigations, which show that participants primed with collectivism score higher in interdependence than independence and participants primed with individualism score higher in independence than interdependence (cf., Gardner et al., 1999; Kimmelmeier & Yan-Ming Cheng, 2004; Trafimow et al., 1991; White et al., 2006). It is convenient to remark that, to the best of our knowledge, past experiments have never compared measures of self-construals over time. Since our experiment failed to alter the self-construals, there was no significant difference in measures of discomfort towards rating and rating elevation between priming conditions.

For the sake of discussion, the query is then to clarify why our manipulations failed to produce the desired outcomes. A first reason may be that Pronoun Circling, the technique we adopted to prime individualism and collectivism, is not strong enough for the purpose of altering self-construals in a PA scenario. According to Oyserman and Lee's (2008) meta-analysis, although Pronoun Circling proved to be effective, other priming techniques have better results when it comes to altering independence and interdependence (e.g., *Sumerian Warrior*, *SDFP*; see Appendix 3). A more plausible reason is related to the settings in which participants were primed. This is so because, as inferred from the literature, priming manipulations may require highly structured and homogeneous experiment conditions for participants (see Fujita & Trope, 2014; Loersch & Payne, 2014). Likewise, the circumstances in which priming effects arise may also necessitate some uniformity (see Dijksterhuis & Van Knippenberg, 1995). Unfortunately, we could not meet such requirements given that we approached participants on-line. Therefore, we are inclined to believe that our priming manipulations were unproductive due to the absence of standardization pertaining to the physical space in which participants read the priming passage and rated their peers.

Respecting discomfort towards rating, our investigation supports the claim that this variable and rating elevation are positively related. These results reproduce those of Saffie-Robertson and Brutus (2013), but the proportion of rating elevation explained by discomfort towards rating was much higher in our study even under equal methodologies ($\Delta R^2 = .21$ vs. $\Delta R^2 = .07$). The suppression of careless responses in our study should explain such discrepancy. In any case, our analysis reinforces the argument that firms can lessen leniency if they make certain arrangements to reduce discomfort (see Smith et al., 2000; Tziner & Murphy, 1999; Villanova et al., 1993). Actions may include, as suggested by Saffie-Robertson & Brutus (2013), providing anonymity during the appraisal process and communicating the genuine purpose of the appraisal. These recommendations would be convenient for reducing discomfort in predominantly interdependent raters; however, special training would be more suitable for predominantly independent raters (see Bernardin & Villanova, 2005).

6.2. Limitations

Although this thesis has fulfilled his objectives, some shortcomings should be mentioned. First, like most studies on PA, we used a sample of undergraduate students; hence, the generalizability of our results is constrained even though participants engaged in a real rating task. To our defense, research with students was a realistic point of departure for evaluating priming manipulations as a supporting tool in the appraisal process.

Regarding our variables, concerns may arise about using the average of peer ratings as a valid measure of rating elevation. Although such approach is commonplace (see Bernardin et al., 2000; Saffie-Robertson & Brutus, 2013), it makes hard to discern to what extent the ratings given by the participants are lenient rather than accurate. To overcome such obstacles, scholars may attempt to compare their own measures of rating elevation with proxies of performance, such as students' GPA or professors ratings (see Bernardin et al., 2000). On the other hand, we controlled IM using Paulhus's (1988) BIDR but not for *self-deception*. Whereas IM reflects individuals' need to defend their social image (i.e., ego-defense), self-deception centers on individuals' need to accentuate their personal characteristics (i.e., ego-enhancement; Paulhus, 1991). In this sense, self-deception may have interfered with our assessments of independence and interdependence or with our analysis of the relationship between discomfort towards rating and rating elevation. Likewise, *self-efficacy*

was another variable that we did not control. Raters exhibiting great self-efficacy experience lower levels of discomfort towards rating because, as stated by Bernardin and Villanova (2005), they “perceive themselves as more capable of performing social behaviors that contribute to successful resolution of potential conflict with ratees” (p. 63).

The design of our experiment presents additional limitations. Internet-based studies have a greater rate of careless responses, with reports ranging from 10% (Meade & Craig, 2012) to 50% (Curran, Kotrba, & Denison, 2010, as cited by Meade & Craig, 2012). We tried to detect these responses through long-strings, but we might have overlooked other patterns of careless responses. When possible, priming manipulations experiments should elude internet-based designs, or at least include additional countermeasures to reduce the negative impact of careless responses (e.g., *Mahalanobis Distance*, *Even-Odd Consistency*; see Johnson, 2005; Meade & Craig, 2012). Finally, our experiment lacked awareness checks. In consequence, it is plausible that some participants had detected the link between manipulations and self-construals. Scholars agree that participants who notice such connections are prone to produce responses opposing the intended priming effects (DeCoster & Claypool, 2004; Doyen et al., 2014). Therefore, in our study, some participants facing individualistic priming conditions could have intentionally accentuated interdependence, and some participants under collectivistic priming conditions could have accentuated independence. Supposedly, our sample ($N = 278$) was big enough as to mitigate the adverse effect of careless responses potentially remaining in the sample and of participants’ awareness of the priming and self-construals relation.

6.3. Future Research

We hope that this thesis will encourage future investigations. The next logical step would be to determine whether priming manipulations can function as a research method in PA to study how individualism and collectivism impact the appraisal process without the intrusion of confounding variables. This aspect was not directly examined due to the scope of our study. To resolve this issue it will be essential to conduct priming manipulations within laboratory settings with a standardized environment for participants. Additionally, future research may attempt to determine if stronger priming techniques are capable of altering self-construal in the appraisal process.

However, we believe that this kind of scrutiny would be of little practical interest, as we will discuss later.

This thesis may inspire new research avenues for discomfort towards the appraisal process. A central issue is to verify if raters really feel discomfort when they see the appraisal process as a threat to their social status, ratees' well fare, or collective harmony. These three scenarios are described in Longenecker et al.'s (1987) semi-structured interviews with 60 managers, a study that stands as the theoretical pivot linking discomfort to leniency. Hence, it is imperative to acquire empirical evidence confirming the causes of raters' discomfort. Additionally, future research may also investigate how different sources of discomfort account for each aspect of discomfort towards the appraisal process (e.g., towards observing, providing feedback; see Villanova et al., 1993), and how these aspects of discomfort relate to independence and interdependence. Interdependent identities, for instance, appear to be more susceptible to discomfort towards providing feedback than independent identities; while both self-construals may experience equal levels of discomfort towards observing ratees' behaviors. This kind of research would yield relevant implications, as it could indicate which type of rater is more capable of accomplishing each phase of the appraisal process.

On the other hand, the causal relation between discomfort and leniency is still open-ended. So far, only Villanova et al. (1993) have addressed causality with data from undergraduate students but further evidence is needed. We are particularly appealed to the results of our additional analysis according to which predominantly interdependent raters are more willing to give high ratings but less affected by discomfort towards rating than predominantly independent raters. On this line, we wonder why those interdependent raters in our sample would feel less discomfort if they already protected themselves through rating elevation. Future research may expose in which situations leniency reduces discomfort towards the appraisal process, and when discomfort generates leniency.

6.4. Practical Implications

The aim of this section is to generalize beyond the data in order to expose practical implications of applying priming manipulations in real business settings.

On logical grounds, we have doubts about the success of priming manipulations in real PA settings. Firstly, priming manipulations require participants working on standardized situations (see Aarts & Dijksterhuis, 2003; Fujita & Trope, 2014; Loersch & Payne, 2014); nonetheless, the dynamism and complexity of the appraisal process makes such conditions unattainable (cf. Murphy & Cleveland, 1995; Tziner et al., 2005). Secondly, the phenomenon of priming is so intricate that it could become more problematic than dealing with discomfort and leniency directly. For instance, firms would urge special training for those in charge of PA systems to comprehend when and how priming operates. Furthermore, priming manipulations would require a closer control over the appraisal process to handle aspects such as timing ratings with priming interventions or to supervise if raters correctly perceive the priming stimulus. Lastly, it would be challenging to adapt current language-based priming techniques to rating instruments currently used by firms. We evidenced that the Circling Pronoun technique has no influence on independence and interdependence but there are stronger methods that may probably alter these self-construals during the appraisal process. Two examples are the Sumerian Warrior, in which participants read a short story about an ancient hero, and the SDFF, in which participants describe similarities or differences with family or friends (Oyserman & Lee, 2008, see Appendix 2). It would be cumbersome to reframe the mentioned techniques in such way that raters perceive them repeatedly before engaging in ratings.

Even if firms were somehow able to overcome all the obstacles mentioned above, they would have to revise some ethical implications of using priming techniques on their raters. This is so because priming would necessarily comprise an unauthorized manipulation of raters' cognition, which can be seen as a direct violation of employees' privacy and free will and lead to legal actions against firms.

In sum, despite initial interest, we believe that priming manipulations are not a plausible option to cope with discomfort, leniency, or any other biases affecting the appraisal process.

6.5. Conclusions

The results derived from this thesis pose doubts respecting the use of priming manipulations as a method to deal with discomfort towards rating and leniency in the form of rating elevation during the rating phase of the appraisal process. We believe that it would be prohibitively

problematic to assimilate intricate procedures such as priming to the appraisal process. Nonetheless, we consider that scholars can apply priming manipulations to study the impact of individuals and collectivism on the appraisal process.

VII. References

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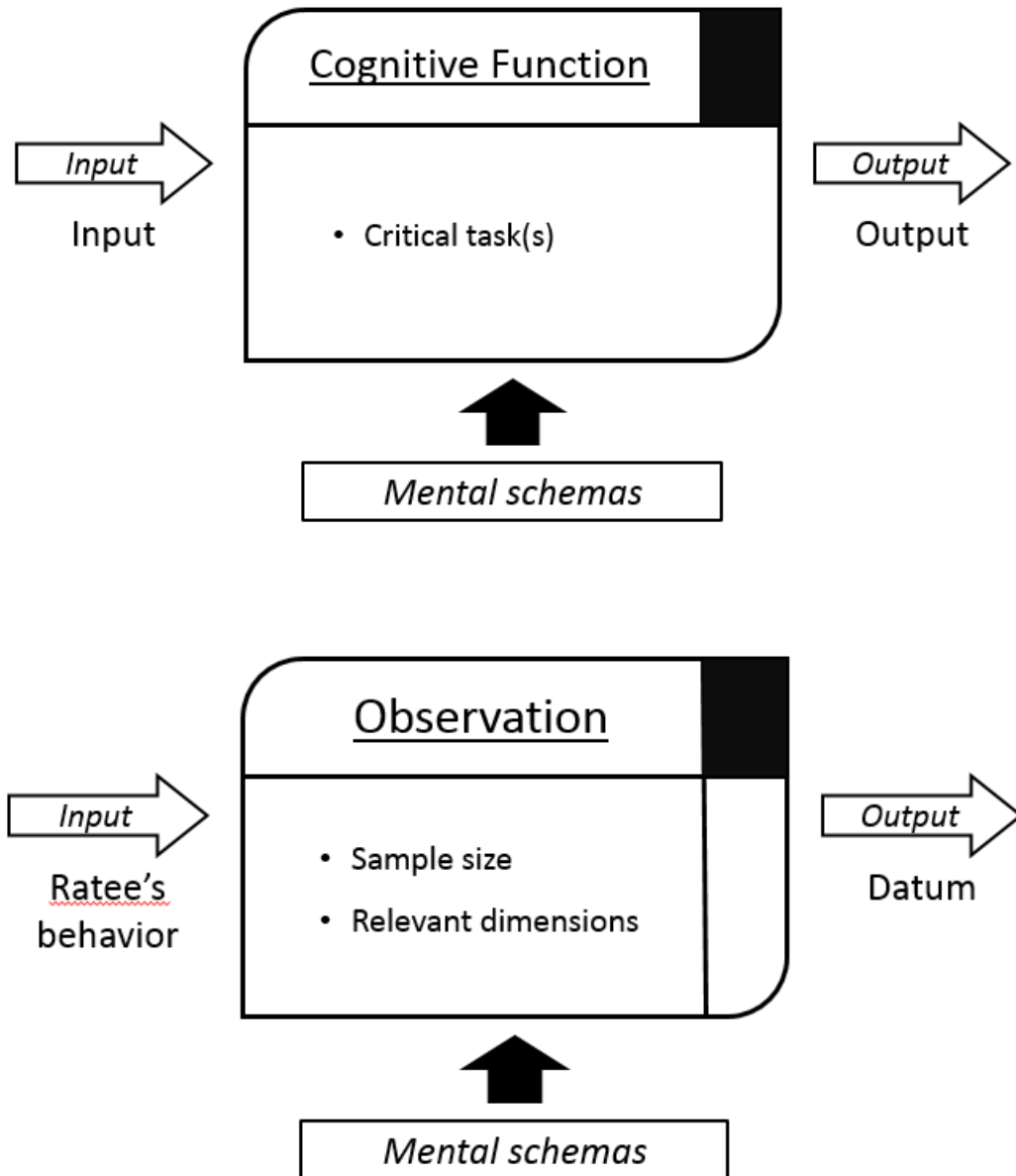
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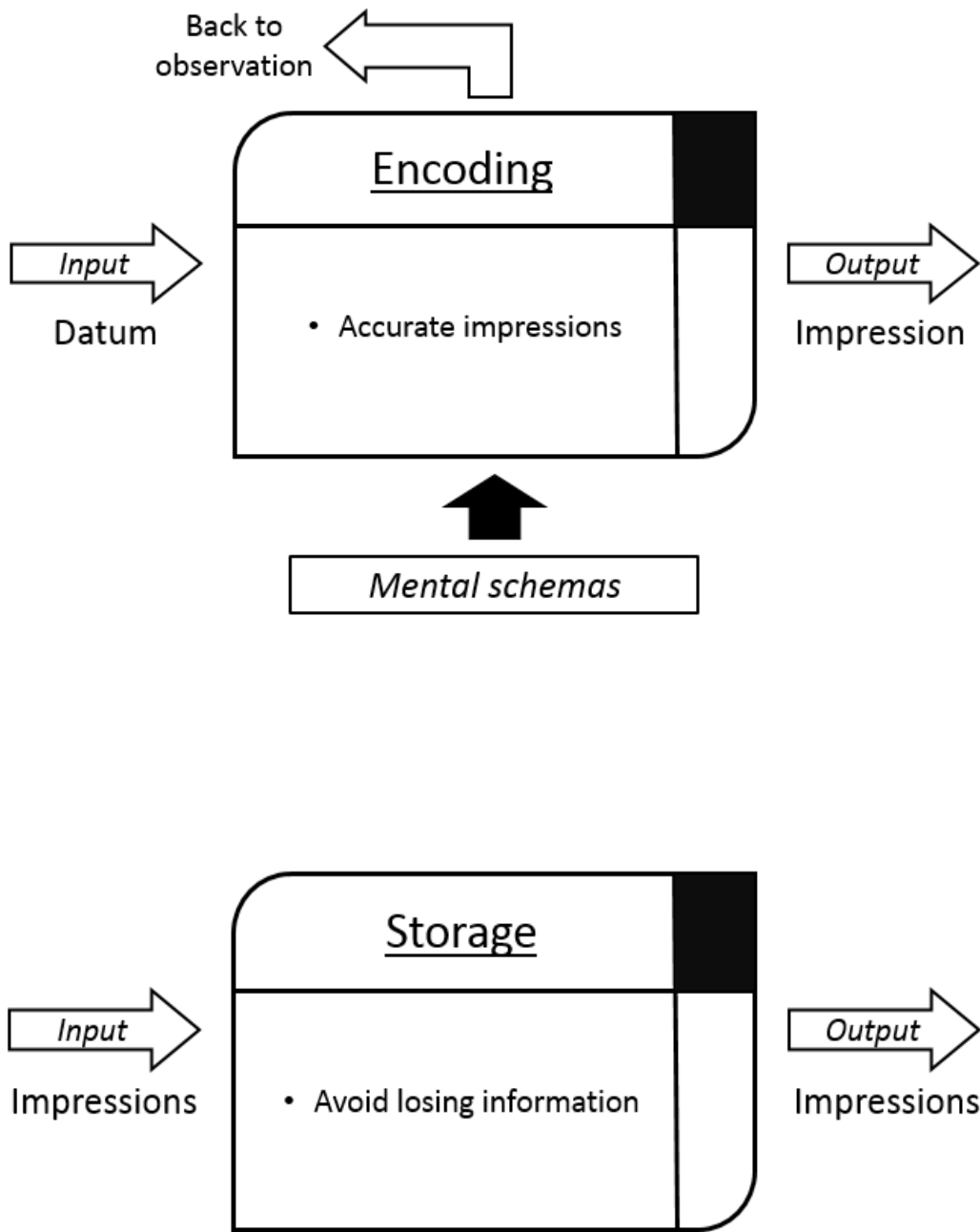
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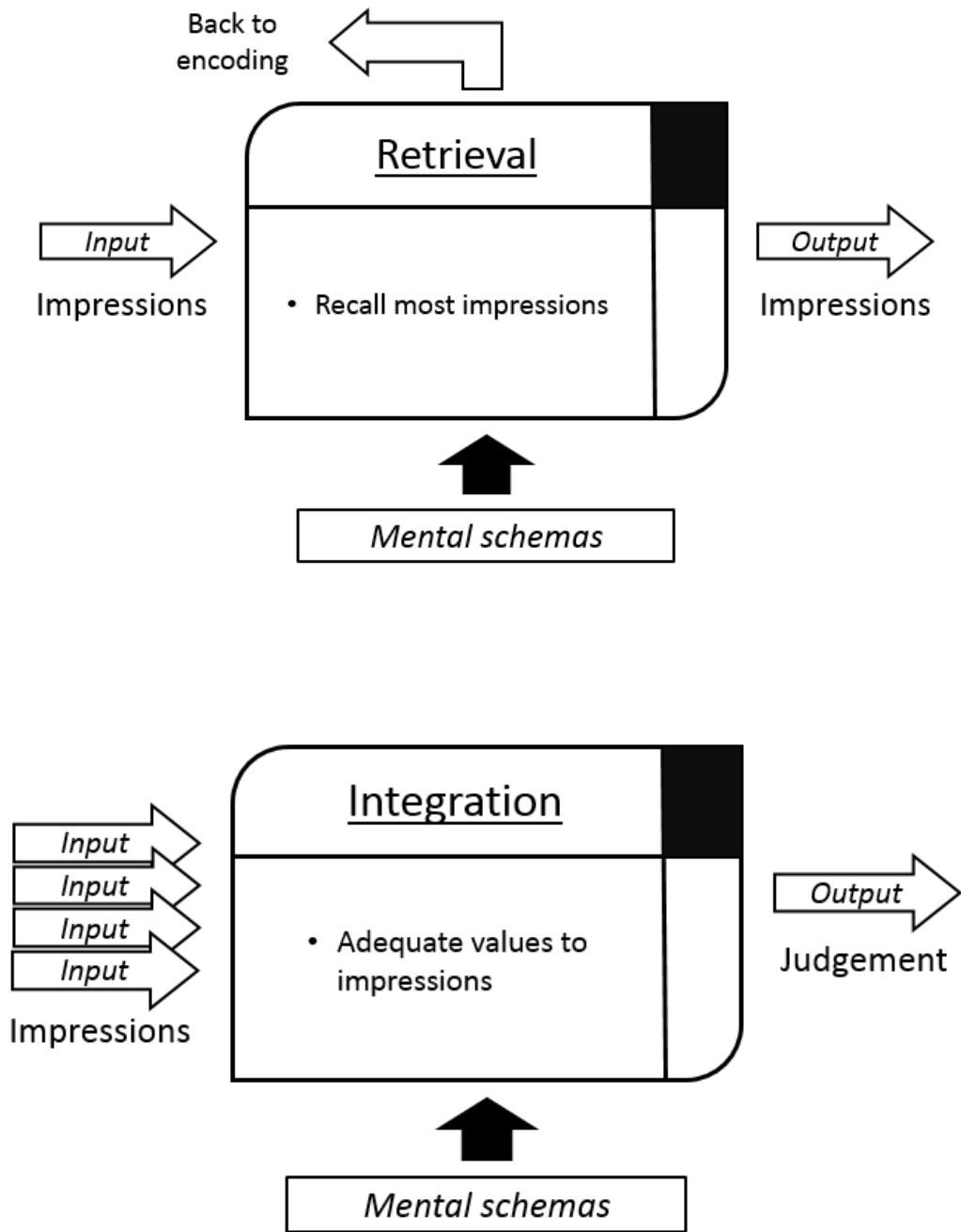
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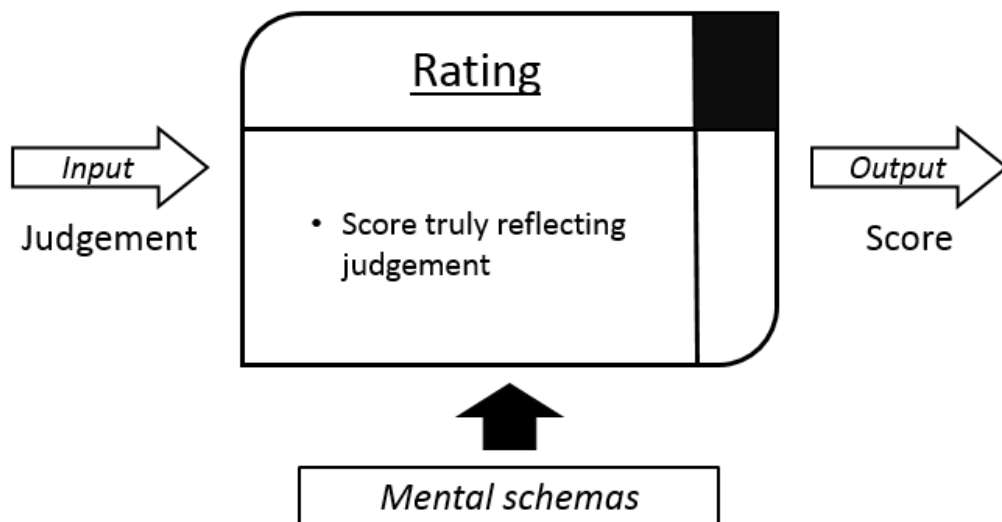
VIII. Appendices

Appendix 1: Cognitive Functions in DeNisi's et al. (1983) Model









Appendix 2: Techniques to Prime Individualism and Collectivism

Past experiments conducted priming manipulations to activate individualism or collectivism. In their meta-analysis, Oyserman & Lee (2008) listed seven different techniques to prime individualism and collectivism documented in 67 studies. These methods, as described by the authors, are:

Group instantiation: To prime collectivism, participants form groups and are stimulated to compete against other groups. To prime individualism, participants are encouraged to compete, but they do not form groups.

Group imagination: Participants imagine themselves competing in a tennis match or consuming grape juice. To prime collectivism, participants imagine themselves as part of a team or a family. To prime individualism, participants imagine themselves acting alone.

Similarities and differences with family and friends task (SDFP): To prime collectivism, participants think of what they have in common with their relatives or friends. To prime individualism, participants reflect on what makes them different and unique from family and friends.

Pronoun circling task: Participants circle all the pronouns contained in a short story. To prime collectivism, all the pronouns in the story are plural [e.g., we, us]. To prime individualism, all the pronouns are in singular [e.g., I, me].

Scrambled sentence task: Participants read sets of words, and then create sentences with those words. To prime collectivism, participants read terms such as *we, us, ours, share, cooperative, help, group, together, team, support, closeness, cohesive, connection, interdependence, merged, overlap, similar, shared, together, union, friendships*, etc. To prime individualism, participants read words such as *I, me, mine, competitive, own, free, unique, dissociate, assertive, unusual, autonomy, alone, apart, autonomous, detached, distinct, diverge, independence*, etc.

Subliminal priming: Participants read target words or pictures very quickly [35 milliseconds]. The words *share, ours, cooperate, us, we, group, same, and team* are used to prime collectivism;

whereas the words *own*, *mine*, *compete*, *I*, *me*, *individual*, *distinct*, and *free* are used to prime individualism.

Sumerian warrior story: Participants read a dense text about a Sumerian hero. To prime collectivism, the talent of the warrior is attributed to the tribe. To prime individualism, the ability of the warrior is attributed to the warrior himself.

Oyserman & Lee's (2008) meta-analysis reveals that priming has divergent effects on values, self-concept, relationality, well-being, and cognitive style when activating individualism or collectivism. Therefore, priming manipulations are, in general, useful.

Appendix 3: Research Questionnaires

Questionnaire T1

Individualism/Collectivism Scale

Answer the following questions considering 1=Strongly Agree and 7=Strongly Disagree

- I/C Q1 I have respect for the authority figures with whom I interact.
- I/C Q2 It is important for me to maintain harmony within my group.
- I/C Q3 My happiness depends on the happiness of those around me.
- I/C Q4 I would offer my seat in a bus to my professor.
- I/C Q5 I respect people who are modest about themselves.
- I/C Q6 I will sacrifice my self-interest for the benefit of the group I am in.
- I/C Q7 I often have the feeling that my relationships with others are more important than my own accomplishments.
- I/C Q8 I should take into consideration my parent's advice when making education/career plans.
- I/C Q9 It is important to me to respect decisions made by the group.
- I/C Q10 I will stay in a group if they need me, even when I'm not happy with the group.
- I/C Q11 If my brother or my sister fails, I feel responsible.
- I/C Q12 Even when I strongly disagree with group members, I avoid argument.
- I/C Q13 I'd rather say "No" directly than risk being misunderstood.
- I/C Q14 Speaking up during class is not a problem for me.
- I/C Q15 Having a lively imagination is important to me.
- I/C Q16 I am comfortable with being singled out for praise or reward.
- I/C Q17 I am the same person at home that I am at school.
- I/C Q18 Being able to take care of myself is a primary concern for me.
- I/C Q19 I act the same way no matter who I am with.
- I/C Q20 I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.
- I/C Q21 I prefer to be direct and forthright when dealing with people I've just met.
- I/C Q22 I enjoy being unique and different from others in many respects.
- I/C Q23 My personal identity independent of others is very important to me.
- I/C Q24 I value being in good health above everything.

Impression Management Scale

Answer the following questions considering 1=Strongly Agree and 5=Strongly Disagree

- IM Q1 I never cover up my mistakes.
IM Q2 There have been occasions when I have taken advantage of someone.
IM Q3 I always obey laws, even if I'm unlikely to get caught.
IM Q4 I have said something bad about a friend behind his or her back.
IM Q5 When I hear people talking privately, I avoid listening.
IM Q6 I have received too much change from a salesperson without telling him or her.
IM Q7 When I was young I sometimes stole things.
IM Q8 I have never dropped litter on the street.
IM Q9 I never look at sexy books or magazines.
IM Q10 I have done things that I don't tell other people about.
IM Q11 I have pretended to be sick to avoid school or work.
IM Q12 I don't gossip about other people's business.

Info only for matching purposes and for the credit.

Concordia ID number:

Email address:

Age:

Gender: Male Female

Years in the current program at Concordia:

Questionnaire T2 - Collectivism

Please highlight all the pronouns (such as we, us and ours) in the following text (19 in total)

We go to the city often. Our anticipation fills us as we see the skyscrapers come into view. We allow ourselves to explore every corner, never letting an attraction escape us. Our voice fills the air and street. We see all the sights, we window shop, and everywhere we go we see our reflection looking back at us in the glass of a hundred windows. At nightfall, we linger our time in the city almost over. When finally we must leave, we do so knowing that we will soon return. The city belongs to us.

Individualism/Collectivism Scale

Answer the following questions considering 1=Strongly Agree and 7=Strongly Disagree

- | | |
|---------|--|
| I/C Q1 | I have respect for the authority figures with whom I interact. |
| I/C Q2 | It is important for me to maintain harmony within my group. |
| I/C Q3 | My happiness depends on the happiness of those around me. |
| I/C Q4 | I would offer my seat in a bus to my professor. |
| I/C Q5 | I respect people who are modest about themselves. |
| I/C Q6 | I will sacrifice my self-interest for the benefit of the group I am in. |
| I/C Q7 | I often have the feeling that my relationships with others are more important than my own accomplishments. |
| I/C Q8 | I should take into consideration my parent's advice when making education/career plans. |
| I/C Q9 | It is important to me to respect decisions made by the group. |
| I/C Q10 | I will stay in a group if they need me, even when I'm not happy with the group. |
| I/C Q11 | If my brother or my sister fails, I feel responsible. |
| I/C Q12 | Even when I strongly disagree with group members, I avoid argument. |
| I/C Q13 | I'd rather say "No" directly than risk being misunderstood. |
| I/C Q14 | Speaking up during class is not a problem for me. |
| I/C Q15 | Having a lively imagination is important to me. |
| I/C Q16 | I am comfortable with being singled out for praise or reward. |
| I/C Q17 | I am the same person at home that I am at school. |
| I/C Q18 | Being able to take care of myself is a primary concern for me. |
| I/C Q19 | I act the same way no matter who I am with. |

- I/C Q20 I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.
- I/C Q21 I prefer to be direct and forthright when dealing with people I've just met.
- I/C Q22 I enjoy being unique and different from others in many respects.
- I/C Q23 My personal identity independent of others is very important to me.
- I/C Q24 I value being in good health above everything.

In the next section, you will be asked to think and evaluate your experience as a Comm222 student this semester.

Take a moment to think about your Comm222 group project. Please evaluate the performance of your group members: (Please provide the first name of each group member)

- Q1 Overall, I am satisfied with the performance of this team member in the group project (1=Strongly Agree, 7= Strongly Disagree)
- Peer 1
 - Peer 2
 - Peer 3
 - Peer 4 (if applicable)
 - Peer 5 (if applicable)
- Q2 The performance of this team member has been, in general, excellent (1=Strongly Agree, 7= Strongly Disagree)
- Peer 1
 - Peer 2
 - Peer 3
 - Peer 4 (if applicable)
 - Peer 5 (if applicable)

Think about the evaluations you just completed. When evaluating the performance of your group members or peers, how comfortable do you feel...

(1=Very comfortable and 5=Very uncomfortable)

- Q1 Collecting information of your peers' performance to assign accurate ratings.
- Q2 Using and trusting your observations to assign ratings.
- Q3 Evaluating peer's performance independent of your personal like or dislike for that person.
- Q4 Assigning ratings that are accurate but that you know may disagree with your peer's expectations.
- Q5 Evaluating your peers according to their performance.
- Q6 Talking to a peer about the evaluation you gave him/her.
- Q7 Telling a peer how his/her performance can improve if he/she asks for your advice.
- Q8 In future courses, being in the same workgroup with a peer whose performance you evaluated as below average.
- Q9 Developing a friendship or social relationship with a peer whose performance you evaluated as below average.

Now take a moment to think about the resources you used as a Comm222 student.

- Q3 Overall, I believe the following resources were adequate to learn the material for this course (1=Strongly Agree, 7= Strongly Disagree)
 - Textbook
 - Classroom environment (such as light, heat)
 - Classroom tech equipment (such as projector, clicker)

Think about the evaluations you just completed. When evaluating the resources available to you in Comm222 (textbook, classroom environment, tech equipment), how comfortable do you feel... (1=Very comfortable and 5=Very uncomfortable)

- Q1 Collecting information of the resources to assign accurate ratings.
- Q2 Using and trusting your observations to assign ratings.
- Q3 Evaluating the resources independent of your personal like or dislike for these.
- Q4 Assigning ratings that are accurate but that you know may disagree with other people's expectations.
- Q5 Providing written feedback or comments regarding the usefulness of these resources.

Questionnaire - T2 Individualism

Please highlight all the pronouns (such as I, me and my) in the following text (19 in total)

I go to the city often. My anticipation fills me as I see the skyscrapers come into view. I allow myself to explore every corner, never letting an attraction escape me. My voice fills the air and street. I see all the sights, I window shop, and everywhere I go I see my reflection looking back at me in the glass of a hundred windows. At nightfall, I linger, my time in the city almost over. When finally I must leave, I do so knowing that I will soon return. The city belongs to me.

Individualism/Collectivism Scale

Answer the following questions considering 1=Strongly Agree and 7=Strongly Disagree

- I/C Q1 I have respect for the authority figures with whom I interact.
- I/C Q2 It is important for me to maintain harmony within my group.
- I/C Q3 My happiness depends on the happiness of those around me.
- I/C Q4 I would offer my seat in a bus to my professor.
- I/C Q5 I respect people who are modest about themselves.
- I/C Q6 I will sacrifice my self-interest for the benefit of the group I am in.
- I/C Q7 I often have the feeling that my relationships with others are more important than my own accomplishments.
- I/C Q8 I should take into consideration my parent's advice when making education/career plans.
- I/C Q9 It is important to me to respect decisions made by the group.
- I/C Q10 I will stay in a group if they need me, even when I'm not happy with the group.
- I/C Q11 If my brother or my sister fails, I feel responsible.
- I/C Q12 Even when I strongly disagree with group members, I avoid argument.
- I/C Q13 I'd rather say "No" directly than risk being misunderstood.
- I/C Q14 Speaking up during class is not a problem for me.
- I/C Q15 Having a lively imagination is important to me.
- I/C Q16 I am comfortable with being singled out for praise or reward.
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- I/C Q20 I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.
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- I/C Q24 I value being in good health above everything.

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Take a moment to think about your Comm222 group project. Please evaluate the performance of your group members: (Please provide the first name of each group member)

- Q1 Overall, I am satisfied with the performance of this team member in the group project
(1=Strongly Agree, 7= Strongly Disagree)
- Peer 1
 - Peer 2
 - Peer 3
 - Peer 4 (if applicable)
 - Peer 5 (if applicable)
- Q2 The performance of this team member has been, in general, excellent
(1=Strongly Agree, 7= Strongly Disagree)
- Peer 1
 - Peer 2
 - Peer 3
 - Peer 4 (if applicable)
 - Peer 5 (if applicable)

Think about the evaluations you just completed. When evaluating the performance of your group members or peers, how comfortable do you feel...

(1=Very comfortable and 5=Very uncomfortable)

- Q1 Collecting information of your peers' performance to assign accurate ratings.
- Q2 Using and trusting your observations to assign ratings.
- Q3 Evaluating peer's performance independent of your personal like or dislike for that person.
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- Q7 Telling a peer how his/her performance can improve if he/she asks for your advice.
- Q8 In future courses, being in the same workgroup with a peer whose performance you evaluated as below average.
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Now take a moment to think about the resources you used as a Comm222 student.

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 - Textbook
 - Classroom environment (such as light, heat)
 - Classroom tech equipment (such as projector, clicker)

Think about the evaluations you just completed. When evaluating the resources available to you in Comm222 (textbook, classroom environment, tech equipment), how comfortable do you feel... (1=Very comfortable and 5=Very uncomfortable)

- Q1 Collecting information of the resources to assign accurate ratings.
- Q2 Using and trusting your observations to assign ratings.
- Q3 Evaluating the resources independent of your personal like or dislike for these.
- Q4 Assigning ratings that are accurate but that you know may disagree with other people's expectations.
- Q5 Providing written feedback or comments regarding the usefulness of these resources.

*Appendix 5: Certification of Ethical Acceptability for Research Involving
Human Subjects*



CERTIFICATION OF ETHICAL ACCEPTABILITY
FOR RESEARCH INVOLVING HUMAN SUBJECTS

Name of Applicant: Dr. Stephane Brutus
Department: John Molson School of Business \ Management
Agency: Social Sciences & Humanities Research Council
Title of Project: The Impact of Rater's Individualism/Collectivism
on Performance Evaluation

Certification Number: 30004275

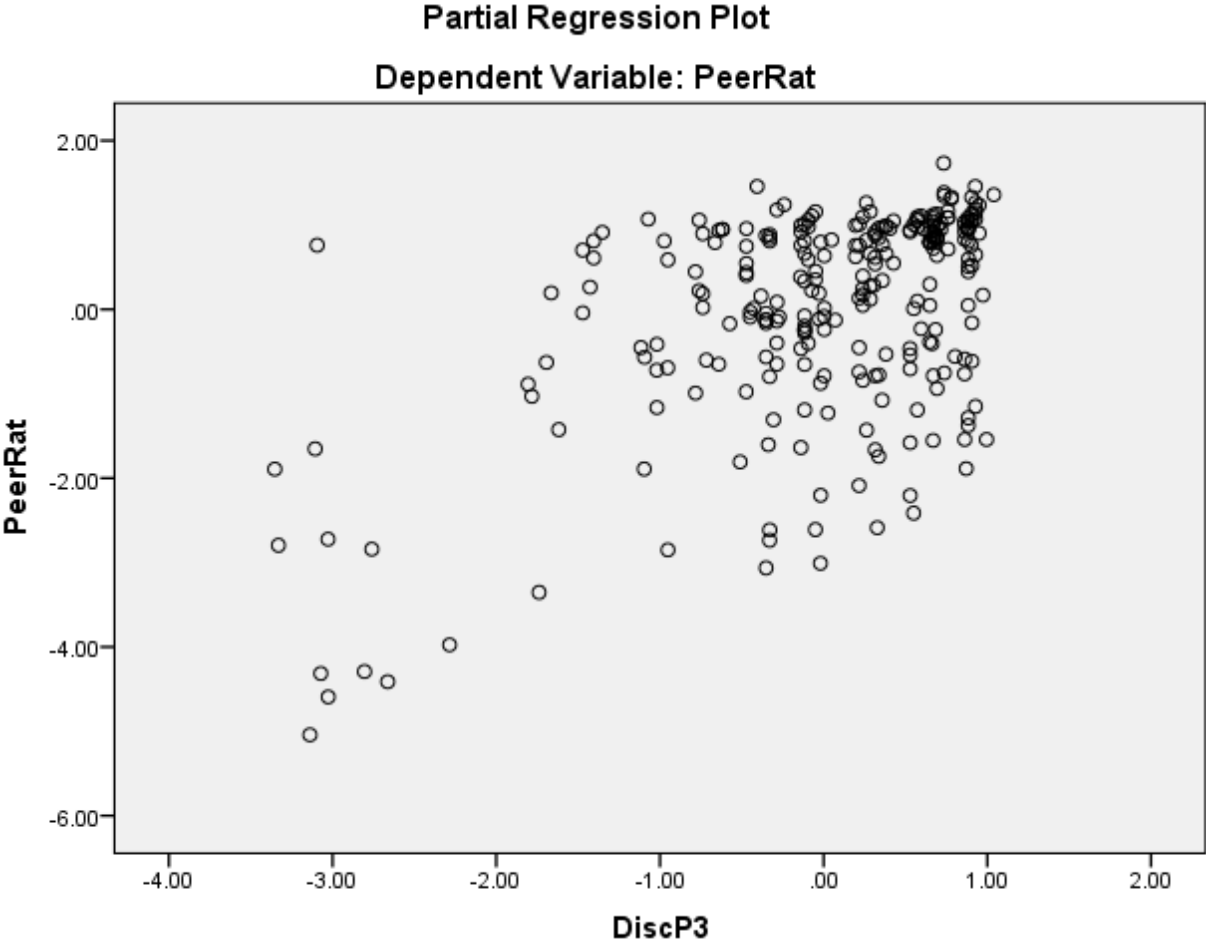
Valid From: February 16, 2016 to: February 15, 2017

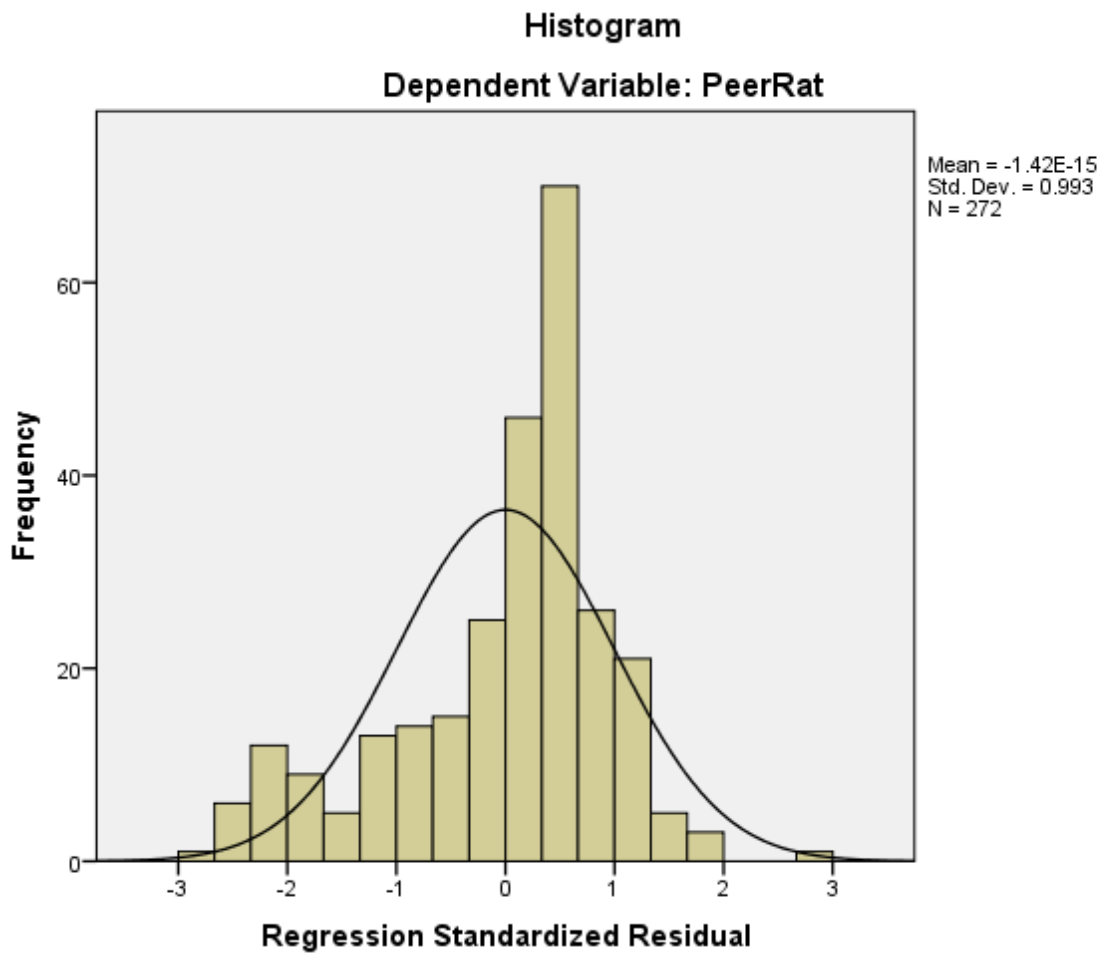
The members of the University Human Research Ethics Committee have examined the application for a grant to support the above-named project, and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

A handwritten signature in black ink, appearing to read "J. Pfaus".

Dr. James Pfaus, Chair, University Human Research Ethics Committee

Appendix 6: Statistical plots for Hypothesis 2





Normal P-P Plot of Regression Standardized Residual
Dependent Variable: PeerRat

