The Influence of Power Dynamics and Power Distance on Nudge Effectiveness

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Abstract

Title: The Influence of Power Dynamics and Power Distance on Nudge Effectiveness

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This dissertation investigated the influence of power dynamics and the cultural dimension of power distance on nudge effectiveness. This investigation was examined within an organizational context, particularly in a hiring scenario. The goal of this thesis was to find out if individuals in different power positions or in different power distance cultures are more susceptible to nudges.

An online survey was conducted using a quantitative research design to test the hypotheses. The survey focused on testing nudge effectiveness in different hiring scenarios. Participants were randomly assigned to either a control or two nudge groups. They were presented with a hiring scenario in which they should make the decision by themselves or give a suggestion to their manager. A logistic regression was used to analyze the interaction between power dynamics, power distance, and nudge effectiveness.

The results showed no significant influence of power dynamics and power distance on nudge effectiveness in the hiring scenario. These findings suggest that the effects of power dynamics and power distance on nudge effectiveness may not exist or may be smaller than what this study had the power to detect. Moreover, these findings indicate that nudge effectiveness may be consistent across the levels of the two variables, thus suggesting that nudges can be implemented broadly across different power levels and power distances. Further research should include other variables, such as personal traits and organizational factors, and a larger sample to further explore the relationships to increase the efficient use of nudges in an organizational setting.

Keywords: Nudge, Nudge Effectiveness, Power Dynamics, Cultural Dimensions, Power Distance, Decision-Making

Sumário

Título: A influência da dinâmica do poder e da distância do poder na eficácia de *nudges*

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Esta dissertação investigou a influência da dinâmica do poder e da dimensão cultural da distância ao poder na eficácia dos *nudges*. A investigação foi realizada num contexto organizacional, particularmente num cenário de contratação. O objetivo desta tese foi descobrir se indivíduos em diferentes posições de poder ou culturas de distância ao poder são mais suscetíveis a *nudges*.

Foi conduzido um inquérito *online* utilizando um desenho de pesquisa quantitativa para testar as hipóteses. O inquérito focou-se na eficácia dos *nudges* em cenários de contratação. Os participantes foram distribuídos aleatoriamente entre um grupo de controlo ou dois grupos de *nudge*. Foi-lhes apresentado um cenário de contratação em que deveriam tomar a decisão por si mesmos ou sugerir uma opção ao gestor. Utilizou-se regressão logística para analisar a interação entre a dinâmica do poder, a distância ao poder e a eficácia do *nudge*.

Os resultados não mostraram uma influência significativa da dinâmica do poder e da distância ao poder na eficácia dos *nudges*. Estes achados sugerem que os efeitos da dinâmica do poder e da distância ao poder na eficácia dos nudges podem não existir ou serem menores do que este estudo teve poder para detetar. Além disso, indicam que a eficácia dos *nudges* pode ser semelhante em diferentes níveis das duas variáveis, sugerindo que os *nudges* podem ser amplamente implementados. Investigações futuras devem incluir outras variáveis, como características pessoais e fatores organizacionais, e uma amostra maior para explorar melhor as relações e aumentar a eficiência do uso de *nudges* num contexto organizacional.

Palavras-chave: *Nudge*, Eficácia do *Nudge*, Dinâmica do Poder, Dimensões Culturais, Distância do Poder, Tomada de Decisão

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List of Abbreviations

& - *And*

Exp(B) - *Exponentiated coefficient*

H1 - *Hypothesis 1*

H2 - *Hypothesis 2*

M - *Mean*

p - *p-Value*

R² - *R-squared*

SD - *Standard deviation*

1. Introduction

People are continually faced with decisions, some unimportant, some life changing. Research suggested that an average adult makes around 35,000 decisions daily (Krockow, 2018), showing that decisions are essential to human life. Consequently, understanding and influencing decision-making processes are vital for various stakeholders, such as policymakers and business leaders.

One way to influence the decision-making process is through so-called nudges. Thaler and Sunstein (2008) defined a nudge as a subtle change in the environment that guides people's behavior without impeding their freedom of choice. They also stated that the goal of nudges is to facilitate people's lives and help them make better decisions. Nudges have been used to foster positive behavioral changes in various areas (Thaler & Sunstein, 2008). For example, in the UK, the Behavioural Insights Team, known as the nudge unit, was established in 2010 to improve people's lives and communities. Since then, the team has successfully used multiple nudge strategies. For instance, during the COVID-19 pandemic, they encouraged public health practices by using disgust as an incentive to wash hands (The Behavioural Insights Team, 2018). Moreover, with the help of personalized text reminders, the Behavioural Insights Team increased attendance at medical appointments. Their most significant application of nudging was changing the default for automatic enrollment for pensions from opt-in to opt-out, which has been used to enroll 10 million people into pensions to date (Rutter, 2020; The Behavioural Insights Team, 2018). Nudges also have been used in organizational behavior, especially in hiring processes (Keck & Tang, 2019). These nudges aimed to minimize biases and improve fairness (Milkman et al., 2015). Bohnet et al. (2016) found that the individual judgment of candidates led hiring managers to gender biases. Furthermore, they found that the simultaneous evaluation of the candidates led the hiring manager to focus more on direct performance metrics and qualifications, which minimized the impact of gender biases.

However, different factors could influence the effectiveness of nudges, such as the organizational context and cultural settings (Lehner et al., 2016). For instance, power dynamics, which refers to the distribution and exercise of power within an organization (Boonstra & Gravenhorst, 1998), or the cultural dimension of power distance (Hofstede, 2011), which examines whether a society accepts and expects power to be distributed unequally. Given the

importance of power distance and power dynamics in organizational decision-making (Earley, 1999; French & Raven, 1959), these two variables may influence the effectiveness of nudges.

This dissertation investigated how power dynamics and the cultural dimension of power distance influence the effectiveness of nudges in a hiring scenario to understand how to improve the effectiveness of nudges.

1.1 Relevance of the Topic

Understanding the influence of power dynamics and the cultural dimension of power distance on nudge effectiveness within an organizational context is relevant for academic research and managerial practice. For instance, nudges have been used to promote energy consumption in public settings by, among other practices, setting printers to default to double-sided printing, which significantly reduced paper usage (Brown et al., 2013). Moreover, Lehner et al. (2016) showed that specific organizational characteristics, such as the culture of an organization, could influence nudge effectiveness. While the existing literature has explored some aspects of organizational context regarding nudges, power structures have been neglected. This dissertation focused on how power dynamics and power distance influence nudge effectiveness.

Power dynamics have been fundamental in determining organizational behavior and decision-making processes (French & Raven, 1959). These dynamics have influenced how authority, influence, and control are distributed and thus influence how decisions are made, who will make the decisions, and how they will be implemented (Boonstra & Gravenhorst, 1998). Despite the importance of power dynamics, there is still a lack of research regarding their influence on the effectiveness of nudges.

The effectiveness of nudges is influenced by contextual and cultural factors. For instance, Tagliabue and Sandaker (2019) found that nudges are more effective when they align with a community´s values and goals, indicating that the cultural context plays a crucial role in the effectiveness of nudges. Moreover, Hagman et al. (2015) found that some cultural dimensions, although not power distance, significantly influenced how nudges are perceived and accepted. However, this dissertation's novelty lay in the focus on the cultural dimension of power distance and its influence on nudge effectiveness in an organizational decision, particularly a hiring decision.

To increase the acceptability and efficacy of nudges in different organizational hierarchies and cultural contexts, it is essential to understand the role of power dynamics and power distance.

Academically, this research closed a gap since no studies has investigated the relationship among power dynamics, power distance, and nudge effectiveness.

1.2 Problem Statement and Research Question

Studies have shown that the concept of a nudge that fits all contexts is not realizable (Jung & Mellers, 2016). Different factors have influenced the effectiveness of nudges, such as the framing of the nudge and whether it is transparent (Johnson & Goldstein, 2003). This understanding emphasizes the necessity of tailored nudges that consider specific contextual factors.

One contextual factor that may impact nudging efficacy is power dynamics. Existing literature has shown the influence of power dynamics on decision-making (Anderson & Galinsky, 2006; Keltner et al., 2003). Many nudges work by changing the architecture of the choice context so that intuition leads not to biased decision-making but to desirable decision-making (Thaler & Sunstein, 2008). Furthermore, analytical thinking is required to avoid biases, and low-power individuals engage in more analytical and deliberate decision-making (Keltner et al., 2003). However, certain types of nudges engage with more deliberate and controlled thinking (Hansen & Jespersen, 2013). Therefore, these nudges should be more effective on low-power individuals.

Another contextual factor is the cultural dimension of power distance. Brockner et al. (2001) found that power distance influenced behavior and decision-making processes within cultural contexts. Additionally, researchers have found that power has been moderated by culture (Zhong et al., 2006). Moreover, it has been discovered that cultural dimensions, such as individualism vs. collectivism, influenced the effectiveness of nudges (Triandis, 2001). Therefore, it is plausible that power distance, as another cultural dimension, will influence nudge effectiveness.

While it is known that power dynamics and power distance influence decision-making, the interplay between these factors and nudge effectiveness has not been thoroughly examined. This dissertation's novel contribution was examining how these factors influenced nudge effectiveness. Thus, the dissertation aimed to answer the following research question:

RQ: How do power dynamics and power distance influence the effectiveness of nudges?

1.3 Structure of the Dissertation

The structure of this dissertation is as follows: The current and first chapter consists of the topic presentation, relevance, problem statement, and research question. The next chapter reviews the relevant literature, highlighting key findings regarding nudges, power dynamics, and power distance. Chapter 3 presents the methodology used to answer the research question. In Chapter 4, the study's data is analyzed, and the results are presented. Finally, Chapter 5 discusses the main findings of the data analysis and discusses limitations and proposals for future research.

2. Literature Review

2.1 Nudges

Everyday choices, whether simple or complex, can be strongly influenced by various factors that might not be considered relevant by normative models of reasoning (Marewski & Gigerenzer, 2012). For example, in the decoy effect, people's decision-making is influenced by introducing a third option that makes the original options more attractive (Huber et al., 1982). The decoy effect is an example of a nudge, which is a subtle change in the environment that predictably alters people's behavior without impeding their freedom of choice or significantly altering their financial incentives (Thaler & Sunstein, 2008).

According to Thaler and Sunstein (2008), understanding the principles of choice architecture and libertarian paternalism is key to understanding how nudges work. These authors described choice architecture as a concept stating that the way choices are presented can influence decisions. This principle comprised all the elements that influence decision-making, from the framework of the options to the presentation of information (Thaler & Sunstein, 2008). This aimed to lead people to better outcomes through a well-thought-out design of the decision-making environment without removing or restricting choices (Thaler & Sunstein, 2008). As an example, Thaler and Sunstein (2008) noted that a cafeteria manager, as a choice architect, could improve customers' food choices by altering the framework of choices towards healthier food presented at eye level. Thus, the manager led customers to healthier food consumption.

The second principle that Thaler and Sunstein (2008) introduced is libertarian paternalism. They defined libertarianism as the principle of freedom of choice; it preserves the autonomy of individuals and excludes bans and restrictions. Paternalism refers to actions meant to improve the outcome of the affected parties based on their own preferences and values (Thaler & Sunstein, 2008). The underlying idea is to help people act as they would if they had all the

information necessary and were “unaffected by arousal and temptation” (Thaler, 2018, p. 1283). Therefore, libertarian paternalists guide individuals to better decision-making without forcing them to do so (Thaler & Sunstein, 2008).

These principles and nudges are essentially connected. Nudges are subtle yet effective alterations to the environment of choice that align with an individual’s welfare and freedom of choice (Thaler & Sunstein, 2008). Therefore, by comprehending and applying these principles, nudges become powerful tools for better decision-making (Thaler & Sunstein, 2008).

Nudges can harness different cognitive biases across different contexts (Jachimowicz et al., 2019). For instance, the default effect involves setting a default option that individuals will automatically receive if they do not make an active choice (Jachimowicz et al., 2019). Default nudges are used in the financial sections of organizations by automatically enrolling employees in pension plans; thus, organizations encourage their employees to save without restricting financial autonomy (Madrian & Shea, 2001). Another cognitive bias harnessed by nudges is the anchoring effect, in which individuals rely too heavily on the initial piece of information, thus affecting their judgment (Furnham & Boo, 2011). For instance, presenting information about calorie counts on menus can influence individuals to choose healthier food options by anchoring the individual's decision around the initial calorie information provided (Roberto et al., 2010).

This dissertation focused on another cognitive bias harnessed by nudges: the decoy effect. First identified by Huber et al. (1982), the decoy effect describes an influence on decision-making where a third option is introduced that makes one of the original options more attractive. Huber et al. (1982) demonstrated this effect in consumer choice scenarios in which adding an inferior option increased the probability of choosing a higher-priced product. Since then, the decoy effect has been applied in various contexts, such as politics, where the outcomes of a political decision are influenced by an inferior alternative (Herne, 1997).

2.1.1 Dual Process Theory and Nudge Typologies

Nudges leverage the intricacies of human decision-making and differ from the traditional economic assumption that individuals behave as rational agents who make choices that maximize utility (Thaler & Sunstein, 2008). Thaler and Sunstein (2008) scrutinized this assumption by demonstrating that various cognitive biases and heuristics influence decision-making and thus deviate from rational models. Therefore, people are not econs, a term that describes individuals who always make rational choices (Thaler & Sunstein, 2008). The utility of nudges lies in this deviation. They aim to correct these biases and nudge individuals towards

the decision they would make themselves if they had all the information necessary and possessed unlimited cognitive abilities and absolute self-control (Thaler & Sunstein, 2008).

The dual process theory plays an essential role in a better understanding of how cognitive biases and heuristics influence decision-making, as it points out that the thinking that leads to judgments and decisions is divided into two distinct systems: System 1 and System 2 (Kahneman et al., 2011). On the one hand, System 1 is fast, intuitive, automatic, uncontrolled, and unconscious (Thaler & Sunstein, 2008). It is used when decisions are seen as easy to take, the decision maker is under time pressure, or the outcome is nonrelevant. Therefore, System 1 is vital for day-to-day life since it often leads to quick and effective decisions (Kahneman et al., 2011). However, its largely uncontrolled operation makes it susceptible to systematic errors (Kahneman et al., 2011). On the other hand, System 2 is slow, reflexive, deliberate, controlled, and conscious (Thaler & Sunstein, 2008). It is used for decisions that demand a higher level of attention from the decision-maker (Kahneman et al., 2011). Although more reliable, it demands effort and is not always used, even when necessary (Kahneman et al., 2011).

Nudges interact with and influence these two systems. They often target System 1 by taking advantage of automatic thinking and guiding decisions without the need for conscious thought (Thaler & Sunstein, 2008). However, they can also target System 2 and encourage considering existing options more carefully (Hansen & Jespersen, 2013). The two systems are considered compensatory, meaning that when there is less activation of System 1, then there is more activation of System 2, and vice-versa (Evans, 2008). These interactions demonstrate how carefully nudges are designed and closely associated with the cognitive basis of human decision-making.

Hansen and Jespersen (2013) divided nudges into four types, each engaging with the dual processes in unique ways. Furthermore, they introduced the ethical dimension of transparency to emphasize the decision-maker's transparency and autonomy in the nudging process.

Figure 1 illustrates how nudges can be categorized in a four-field matrix, categorized into the two thinking systems and transparent/nontransparent. Therefore, four types of nudges can be derived.

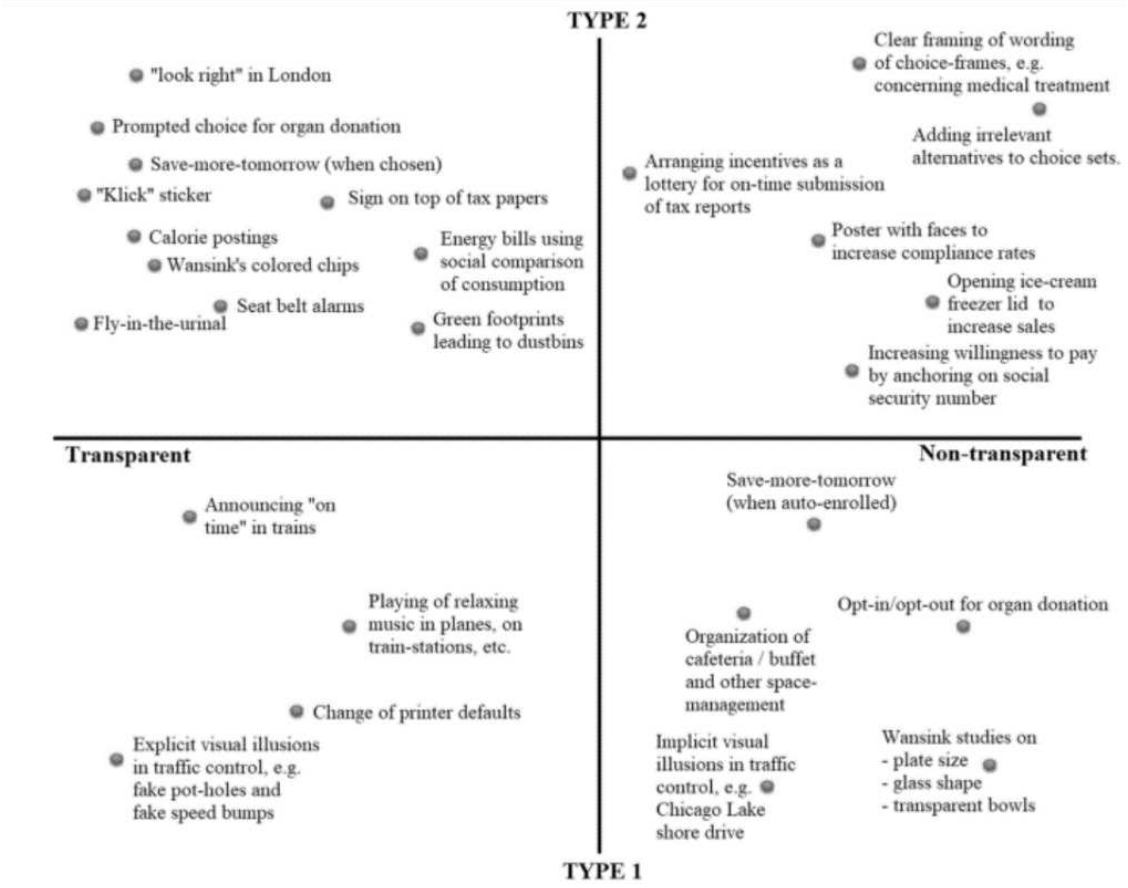

Figure 1: Typologies of nudges matrix, adapted from Hansen and Jespersen (2013)

Transparent Type 1 nudges are characterized by automatic changes in behavior that can be perceived by the person being influenced. These include, for example, announcing “on time” when a train arrives on time (Hansen & Jespersen, 2013). Thereby, passengers remember the positives about their train journey; they can easily recognize the intention and means of the nudge (Hansen & Jespersen, 2013).

In contrast, non-transparent Type 1 nudges are difficult for the individual to recognize, as they are not transparent. This is the case, for example, when using the anchoring effect by announcing a longer waiting time than is actually predicted (Hansen & Jespersen, 2013). Therefore, individuals are pleasantly surprised when the waiting time is shorter. In this case, the intention and means of the nudge cannot be easily recognized since the actual strategy behind managing the individual's expectations is hidden (Hansen & Jespersen, 2013).

Transparent Type 2 nudges are characterized by the fact that the individual relatively easily recognizes them as intended measures to influence their actions and that a reflexive process must occur before the nudge can take effect (Hansen & Jespersen, 2013). One example is the fly in the urinal, in which a fly is drawn in a urinal to improve aim and reduce cleaning costs. This nudge works by drawing the attention and focus of the user (Hansen & Jespersen, 2013).

Non-transparent Type 2 nudges also involve a reflexive process; however, unlike transparent Type 2 nudges, this does not include awareness of the fact and nature of the influence on the behavior itself (Hansen & Jespersen, 2013). This is the case, for example, with different framings of probabilities. For example, whether a doctor formulates the risk of an operation in terms of survival or mortality rates has a different effect on the patient's decision (Hansen & Jespersen, 2013). Furthermore, this is the case for adding irrelevant alternatives to choice sets, such as in the decoy effect, since the decoy encourages individuals to engage in reflective decision-making and carefully compare the options, all while not being aware of the nudge (Hansen & Jespersen, 2013).

While respecting autonomy is crucial in policy-making and governmental nudging, it is important to consider the context in which the nudge is applied (Jachimowicz et al., 2019). In organizational decision-making, such as hiring, the autonomy of the decision-maker may be less valuable to a company than choosing the best candidate (Gagné & Deci, 2005). This difference arises since, in the corporate environment, the goal is to optimize outcomes for the organization, therefore justifying the use of non-transparent nudges, like the decoy effect (Margolis & Walsh, 2003). Understanding the impact of such nudges is essential, as they are likely to be used regardless of their ethical implications, given the interest of organizations in improving decision outcomes (Bovens, 2009).

In this dissertation, the decoy was tested in an organizational context, particularly through a hiring scenario, by investigating how introducing a third less-qualified candidate can nudge decision-makers toward selecting one of the more qualified candidates.

2.1.2 Determinants of Nudge Effectiveness

Nudges have been established as a subtle but effective way to influence decision-making and behavior in various areas (Thaler & Sunstein, 2008). However, it is important to understand that the concept of "one-nudge-fits-all" is not realizable (Jung & Mellers, 2016, p. 62). The effectiveness of nudges can vary depending on various factors.

One key factor in a nudge's effectiveness that deserves a closer look is their transparency. On the one hand, some studies, such as those by Bruns et al. (2018), revealed that when nudges become transparent, their efficiency is not inhibited, for instance, with default nudges. On the other hand, studies like those by Kantorowicz-Reznichenko and Kantorowicz (2021) revealed that when nudges become transparent, they lose their effectiveness, for example, with social nudges. These studies suggest that some nudges are less efficient when they are transparent

since individuals are aware of the nudges and thus might consider their choices more carefully and reject the nudges to maintain their sense of autonomy (Bovens, 2009).

Another key factor in a nudge's effectiveness is the contextual environment in which it is used (Jachimowicz et al., 2019). The environment and/or circumstances of a specific situation can either support or hinder the intended efficacy of nudges (Jachimowicz et al., 2019). For instance, in a community that is involved in environmental protection, nudges that promote more energy-saving behavior will be more effective than in communities that are not. This is the case since the community's involvement creates a supportive context, aligning the nudge with existing values and goals, thus enhancing its effectiveness (Tagliabue & Sandaker, 2019).

Lastly, an individual's unique mental framework, which includes beliefs, perceptions, and characteristics (for example, empathy), influences the effectiveness of nudges (Sunstein, 2015). For instance, a nudge aiming to increase prosocial behavior will be more effective for individuals with higher empathy than those with lower empathy (Jung & Mellers, 2016).

The literature demonstrates that various factors, such as transparency, contextual environment, and individual characteristics, influence the efficacy of nudges. This thesis focused on two particular variables that may impact the efficacy of nudges: power and culture. The next section focuses on power.

2.2. Power

Power is defined as the ability to control one's own and others' resources without interference (Galinsky et al., 2003). It is an omnipresent element in human society since it is experienced by most individuals at least once and influences decisions and behaviors (Keltner et al., 2003). Social power, as a subcategory of power, is defined as the ability to influence the behavior and outcomes of others (Raven, 2008). In contrast to the broader concept of power, which includes the power of, for example, material and financial resources, social power emphasizes the roles and relationships that individuals hold in a social structure, such as professor and student, manager and employee (French & Raven, 1959). Therefore, it focuses more on an individual's interpersonal influence over another based on their position in a social hierarchy. Additionally, power includes psychological factors such as compliance, resilience, and persuasion (Raven, 2008). Power dynamics are decisive for distributing information, resources, and influence, whether in leadership positions, family dynamics, or other social structures. Therefore, understanding power is essential in understanding social structures and interpersonal relationships (Reis et al., 2000).

In academic research, power is often measured and manipulated through controlled experiments (Galinsky et al., 2003). By assigning participants to different power levels, the experiment allows the researcher to replicate power dynamics in the real world and measure how they affect human behavior and decision-making (Galinsky et al., 2003). For instance, Galinsky et al. (2003) manipulated power by asking participants to write an essay about a particular incident in their lives. Those assigned to high power were asked to recall and write about a situation where they had power over others, while those assigned to low power were asked to recall and write about a situation where someone else had power over them. By reminding the participants of their previous power experiences, Galinsky et al. (2003) effectively influenced participants' psychological state. They found that this power priming led to more risky behavior in participants belonging to the high-power condition.

2.2.1 Understanding Power Dynamics: Approach/Inhibition Theory

The approach/inhibition theory (Keltner et al., 2003) suggests that the possession of power activates the behavioral activation system and inhibits the behavioral inhibition system. The behavioral activation system is associated with rewards and positive outcomes, while the behavioral inhibition system is associated with negative outcomes and punishments (Carver & White, 1994). According to the approach/inhibition theory, power significantly influences psychological and behavioral responses by changing an individual's inclination to approach and inhibit (Keltner et al., 2003).

When individuals are in higher-power positions, their behavioral activation system is activated (Keltner et al., 2003). This activation makes them feel more powerful and less threatened; thus, they pursue their goals and rewards more vigorously (Keltner et al., 2003). This leads them to act more assertively, be willing to take risks, and be more optimistic (Anderson & Galinsky, 2006). In this psychological state, the possible benefits to behavior seem to significantly outweigh the possible risks, which makes these people more courageous and more likely to actively approach issues when making decisions (Anderson & Galinsky, 2006).

In contrast, when individuals are in lower-power positions, their behavioral inhibition system is activated (Keltner et al., 2003). This activation makes them more sensitive to threats and possible losses; thus, they behave more inhibited. This inhibition makes them act more carefully and consciously (Keltner et al., 2003). Moreover, they place more value on safety and avoid risks by adhering closely to existing rules and norms in order to avoid negative consequences (Anderson & Galinsky, 2006). This approach leads to more reactive than proactive behavior

and directly influences how lower-power individuals assess risks and make decisions (Keltner et al., 2003).

The approach/inhibition theory illustrates a significant difference in the behavior of high and low-power individuals. While high-power individuals are more willing to take risks, be more optimistic, and makes them pursue their goals more vigorously, low-power individuals are more inhibited, leading them to act more carefully and avoid risks (Anderson & Galinsky, 2006; Keltner et al., 2003). These behaviors also influence their decisions. High-power individuals are more likely to act quickly and trust their gut feelings, while low-power individuals are more cautious and take more time when making decisions (Fast et al., 2012).

2.2.2 Effects of Power on Decision-Making

Beyond the greater tendency of high-power individuals to trust their gut feeling more and low-power individuals to act more analytically when making decisions, research has shown that individuals with high power often exhibit determined and goal-oriented behavior, which reflects their greater autonomy and less dependence on others (Galinsky et al., 2003; Guinote, 2017).

This autonomy leads to more optimism and a greater willingness to take risks, with the focus usually on the potential rewards (Anderson & Galinsky, 2006). The focus on potential rewards can lead to overconfidence and neglect of risks (Jordan et al., 2011). This might negatively influence the decision-making process (Fast et al., 2012;). Furthermore, studies have shown that power correlates with less advice-taking and a stronger dependence on one's own initial judgment, potentially leading to less accurate decisions (See et al., 2011).

Additionally, power leads individuals to selectively draw their attention to information that aligns with their goals (Galinsky et al., 2003). This might simplify the decision-making process, as unimportant information is ignored. However, it increases the risk of stereotyping and trusting cognitive shortcuts (Fiske, 1993). Consequently, perceptions are distorted, and decisions might be made based on general assumptions rather than on specific, detailed data (Fiske, 1993; Overbeck & Park, 2006).

The literature has shown three main ways that being in a low-power position affects people´s judgment and decision-making.

First, when individuals are in lower-power positions, their behavioral inhibition system is activated, which makes them more sensitive to threats and possible losses (Keltner et al., 2003). This increased sensitivity leads to cautious and conscious behavior. Consequently, they develop

a desire to minimize negative consequences (Keltner et al., 2003). As a result, these individuals tend to think more analytically, leading to slower and more deliberate decision-making processes that aim to carefully evaluate all possible outcomes in order to minimize risks (Keltner et al., 2003).

Second, individuals in lower-power positions are more sensitive to external inputs and more open to the perspectives and advice of others (See et al., 2011). This openness can enrich the decision-making process by including different opinions. However, it also tends to reduce self-confidence. As a result of the increased dependence on external inputs, the decision-making process can become more complex and less autonomous (See et al., 2011).

Third, low-power individuals can process a lot of information because they have an extraordinary attention flexibility (Guinote, 2007). This capability enables them to adapt to complex surroundings effectively; in contrast, it can also lead to distractibility, which may hinder their ability to make decisions efficiently (Guinote, 2007).

Given that lower-power people tend to think more analytically, leading to slower and more deliberate decision-making and thus engaging in System 2 thinking (Keltner et al., 2003), and the decoy nudge demands engaging with System 2 thinking, it is expected that System 2 nudges are more susceptible to low-power individuals. In contrast, high-power individuals tend to rely more on their gut feelings, engage more in System 1 thinking (Keltner et al., 2003), and are expected to be less susceptible to System 2 nudges.

H1: *System 2 nudges are more effective on individuals in low-power positions than individuals in high-power positions.*

After discussing the first variable that might influence nudge effectiveness, the next section will focus on the second variable: power distance.

2.3. Culture

Culture is defined as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede, 2011, p. 3). It refers to the collective set of values, beliefs, norms, and practices shared by a group and passed on from generation to generation (Hofstede, 2011). These cultural components impact an individual's perspectives, interpersonal relationships, and decision-making (Hofstede, 2011). Therefore, it is crucial to understand culture, as it impacts behavior and decision-making processes, especially as we live in a globalized world where cross-cultural interactions are common.

Several models have been developed to analyze cultural differences. One of them is Trompenaars' model, as defined in Riding the Waves of Culture: Understanding Diversity in Global Business by Fons Trompenaars and Charles Hampden-Turner (1998), which includes seven dimensions of culture, focusing on interpersonal and organizational behavior. Another model is the global learning and observation to benefit the environment (GLOBE) model, which examines nine cultural dimensions and how culture influences organizational processes and leadership (House et al., 2005).

Due to its popularity and inclusion of the power distance dimension, this thesis focused on another widely recognized model: Hofstede's cultural dimensions theory. This theory identifies six dimensions to describe the differences between national cultures. Individualism vs. collectivism examines whether people's self-images are defined in terms of I or we, with collectivistic societies emphasizing group cohesion and individualistic societies emphasizing personal goals (Hofstede Insights, 2024). Motivation towards achievement and success examines whether a society is driven by competition, achievement, and success, or by caring for others and quality of life (Hofstede Insights, 2024). Uncertainty avoidance measures how comfortable a society is with uncertainty and ambiguity (Hofstede Insights, 2024). Long-term vs. short-term orientation examines whether a society prefers maintaining time-honored traditions and norms or encourages thrift and efforts to prepare for the future (Hofstede Insights, 2024). Indulgence vs. restraints examines how far a society permits the relatively free gratification of basic human desires versus suppressing gratification through strict social norms (Hofstede Insights, 2024). Finally, power distance examines whether a society accepts and expects power to be distributed unequally (Hofstede Insights, 2024). In high-power-distance cultures, hierarchical order is accepted and expected, and authority is not questioned (Hofstede Insights, 2024). In contrast, in a low-power-distance culture, individuals question authority and strive for equality, promoting participative decision-making and reducing the influence of hierarchical orders, significantly impacting organizational behavior and leadership styles (Hofstede Insights, 2024).

Having discussed the cultural dimensions, the next subsection will focus on how these dimensions, particularly power distance, influence nudge effectiveness.

2.3.1 Culture's Impact on Nudge Effectiveness

Culture exerts a significant influence on the values, norms, beliefs, and behaviors of individuals in a society (Hofstede, 2011). It impacts people's cognitive processes, perceptions, and social

relationships, determining how they perceive and engage with their environment (Hofstede, 2011). For example, on the one hand, high-uncertainty cultures prefer explicit rules and structured conditions to avoid ambiguity, striving for stability and predictability (Hofstede, 2011). On the other hand, low-uncertainty cultures tolerate ambiguity better, resulting in more flexible and innovative behavior (Hofstede, 2011). As another example, individualistic cultures emphasize personal goals and independent thinking, encouraging behavior that prioritizes personal achievement and innovation. Conversely, collectivistic cultures emphasize group cohesion, promoting behavior that fosters social harmony and collective well-being (Hofstede, 2011; Triandis, 2001).

Among these cultural dimensions, power distance significantly influences behavior and decision-making processes within cultural contexts (Hofstede, 2011). In high-power-distance cultures, hierarchical order is embedded, and authority is not questioned. In such environments, communication is top-down, resulting in centralized decision-making processes. Thereby, decisions and instructions are followed with no resistance (Khatri, 2009). Accepting these hierarchical orders influences the exchange of information and how decisions are made within an organization, ultimately leading to less autonomy and less participative management styles for lower-power employees (Earley, 1999). Furthermore, power distance influences leadership style and employee outcomes (Earley, 1999). In high-power-distance cultures, authoritarian leadership styles are more often effective, as employees are conditioned to accept and follow managers' instructions without resistance (Earley, 1999). In low-power-distance cultures, participative leadership styles are more effective, as employees expect to be involved in the decision-making process (Earley, 1999). Begley et al. (2002) found that in high-power-distance cultures, employee outcomes, such as job satisfaction and performance, are closely linked to compliance with hierarchical orders and manager expectations.

Research has shown that cultural dimensions also significantly influence the acceptability and effectiveness of nudges, as they influence how individuals perceive and respond to their surroundings. For instance, Hagman et al. (2015) found in their research, which focused on the cultural dimension of individualism vs. collectivism, that people with an individualistic worldview were more likely to perceive nudges as unacceptable. In collectivistic cultures, nudges that foster social norms and collectivistic benefits are more effective since individuals in those cultures behave in ways that promote social harmony and collective well-being (Triandis, 2001). In contrast, nudges that appeal better to personal benefits and individual achievements would be more effective in individualistic cultures. This finding indicates that

cultural dimensions, such as individualism vs. collectivism, can have a moderating effect on the effectiveness of nudges.

Researchers found that cultural dimensions, such as individualism vs. collectivism, influenced the effectiveness of nudges (Triandis, 2001). Therefore, it is plausible that power distance, as another cultural dimension, will influence the effectiveness of nudges as well. In high-power distance cultures, individuals are more likely to follow the instructions of authorities without questioning them (Hofstede, 2011). Additionally, Zhong et al. (2006) found that power has been moderated by culture, suggesting that cultural dimensions such as power distance might also moderate the effectiveness of nudges. Therefore, the second hypothesis can be formulated as follows:

***H2**: The effectiveness of nudges is moderated by power distance, with nudges being more effective in high-power-distance than in low-power-distance cultures.*

3. Methodology

3.1 Research Design

This dissertation's main objective was to analyze the influence of power dynamics and power distance on nudge effectiveness. Therefore, an experimental design was chosen, as it is more effective in evaluating the cause-and-effect relationship (Kirk, 2013).

For data collection, I used a quantitative method to collect data and analyze the relationships between the variables. To collect the data, I used an online questionnaire created with Qualtrics, a survey platform popular due to its user-friendly interface (Barnhoorn et al., 2014).

This study is structured with a factorial design 2 x 3 structure. The first factor is the power condition, to which participants were randomly either assigned to the high or low power condition. In the high power conditions, participants were asked to make the hiring decision by themselves, while in the low power conditions, participants were asked to suggest a candidate to their manager. The second factor is the nudge conditions, in which the participants were randomly assigned to either the control groups or one of the two decoy nudges.

3.2 Decision Scenario

To investigate the influence of power dynamics on nudge effectiveness, I employed the power manipulation method of Galinsky et al. (2003). They manipulated power by asking participants to write an essay about a particular incident in their lives where they either had power or did not. Participants were randomly assigned to high- or low-power conditions. Participants were instructed as follows, according to conditions:

> "Please recall a particular incident in which [high power: you had power over another individual or individuals / low power: someone else had power over you]. By power, we mean a situation in which [high power: you controlled the ability of another person or persons to get something they wanted or were in a position to evaluate those individuals / low power: someone had control over your ability to get something you wanted, or was in a position to evaluate you]. Please describe this situation in which you [high power: had / low power: did not have] power—what happened, how you felt, etc. We ask you to write at least 80 words."

To assess the influence of power dynamics on nudges, I adapted a hiring scenario by Keck and Tang (2019) that included a decoy nudge. The hiring scenario was designed to simulate a realistic decision-making process within an organization. As implemented by Keck and Tang (2019), participants were told to imagine themselves working in an aerospace company that needed a new client-support engineer and that the role required both technical competence and prior work experience. However, unlike the original study, power conditions were included by having participants assigned to high power make the hiring decision themselves and participants assigned to low power make a suggestion to their manager.

In the control conditions, participants decided between two candidates who had the same qualifications as in the nudge conditions. As shown in Table 1, Kevin Davis had more work experience, while Charles Thompson had higher technical competencies.

Table 1: Hiring Scenario Control Groups

Option	Name	Work Experience	Technical Competence
A	Kevin Davis	8 years	BSc in engineering
B	Charles Thompson	5 years	PhD in engineering

For the nudge scenarios, a third candidate, William Anderson, was introduced as a decoy to be asymmetrically dominated by one of the two main candidates, thus nudging participants to a particular choice. Kevin Davis and Charles Thompson's work experience and technical competence remained the same as in the control group. As shown in Table 2, in one nudge scenario, William Anderson was dominated by Kevin Davis since William Anderson has the same technical competence but less work experience.

Table 2: Hiring Scenario Nudge Scenario 1

Option	Name	Work Experience	Technical Competence
A	Kevin Davis	8 years	BSc in engineering
B	Charles Thompson	5 years	PhD in engineering
C	William Anderson	6 years	BSc in engineering

In the other nudge scenario, William Anderson was dominated by Charles Thompson. He had the same technical competence as Charles Thompson but less work experience. In this case, participants should be nudged to choose Charles Thompson. The information presented to the participants can be found in Table 3.

Table 3: Hiring Scenario Nudge Scenario 2

Option	Name	Work Experience	Technical Competence
A	Kevin Davis	8 years	BSc in engineering
B	Charles Thompson	5 years	PhD in engineering
C	William Anderson	6 months	PhD in engineering

3.3 Participants

I used various social media channels, such as LinkedIn, WhatsApp, and Instagram, to reach out to my personal and professional network and recruit participants. Additionally, I shared my survey on SurveyCircle, a platform for finding participants for online surveys. The survey was published in English and German. There were no requirements to participate in the survey. Before starting, participants were made aware that the survey was voluntary and anonymous.

Moreover, they had the opportunity to provide feedback after finishing the survey. Before publishing the survey, a pretest with friends and family was conducted to ensure the clarity of all the questions. The survey was conducted online from July 12th, 2024, to July 31st, 2024, and received a total of 378 responses. However, 123 participants did not complete the survey; thus, the total valid sample size was 255 (67.5%). Out of these 255 participants, 156 were male (61.2%), 96 were female (37.6%), and three were nonbinary (1.2%). Of the participants, 186 were from Germany (72.9%), followed by 19 from Austria (7.5%), and 11 from India (4.3%). In total, individuals from 26 countries participated in the survey. The age range of the participants was from 17 to 64, while the average age was 28 years. Most of the participants were employees (57.6%), followed by students (30.2%), and self-employed (7.5%). Furthermore, most participants had a bachelor's degree or higher (71.9%).

3.4 Procedure

The survey consisted of four parts. The study started with an informed consent and the collection of demographics. The demographics included gender, age, country, occupation, and education. This was followed by power manipulation, in which the participants were either assigned to high-power manipulation, in which they were asked to write about an incident where they had power, or to the low-power manipulation, in which they had to write about an incident in which someone else had power over them. The next part included a power manipulation check. In the power manipulation check, an attention check was included to ensure that participants paid attention to the survey instructions and content. The last part was the presentation of the hiring scenario. At the end of the survey, participants were able to provide feedback on the study. The full survey can be found in Appendix 1.

3.5 Variable Measurements

3.5.1 Independent Variable

The only independent variable used in this dissertation was the nudge condition. The conditions were either one of the control groups, where the decoy was not presented, or one of the nudge conditions, where either Decoy 1 or Decoy 2 were presented. This design was adapted from by Keck and Tang (2019). To facilitate the analysis, two dummy variables were coded. The first dummy was coded as 1 if the decoy that nudged to Candidate A was presented, while other choices were coded as 0. The second dummy was coded as 1 if the decoy that nudged to Candidate B was presented, while other choices were coded as 0. In both cases, if no nudge was presented, it was coded as 0.

3.5.2 Moderator Variables

The first moderator variable was power manipulation, which was implemented through a writing task and was adapted from Galinsky et al. (2003). Participants were randomly assigned to write about an incident in which they had power over someone or someone had power over them. This manipulation was planned to influence the participant's current sense of power. To facilitate the analysis, this variable was coded as a dummy variable. A value of 1 indicated that the participant was in the high-power condition, and 0 indicated that they were in the low-power condition.

The second moderator variable was power distance. This variable was determined based on participants' nationalities, with scores taken from Hofstede's power distance index. This index provides a score for power distance that varies from country to country (Hofstede Insights, n. d.). For instance, German participants had a value of 35.

3.5.3 Dependent Variable

The two dependent variables of this study were the participants' choice of candidates in the hiring scenario. As done in the original study by Keck and Tang (2019), participants were asked to choose one of the candidates after being presented with the hiring scenario. Given that the study aimed to explore the effectiveness of nudges, the choice of candidate served as a direct measure of this effectiveness. Therefore, two dummy variables were coded. The choice of Candidate A was coded as 1, while other choices were coded as 0. Additionally, a second dummy variable was coded for the choice of Candidate B. The choice of Candidate B was coded as 1, while other choices were coded as 0. Choosing the decoy candidate was coded as 0 in both cases.

3.5.4 Covariates

Several covariates were included in the study to increase the analysis's accuracy and to control for possible confounding factors. First, I used sociodemographic information as covariates for this study. These were age, gender, nationality, educational background, and employment status. In addition to having multiple choices, participants could enter their gender, educational background, and employment status in a blank field. They also entered their age in a blank field, while nationality was gathered through a drop-down menu.

A power manipulation check was also included in the study. Its purpose was to ensure that power manipulation was successfully implemented. Participants in high- and low-power

conditions were asked four questions about how in control and influential they felt during the situation and at the current moment. These questions used a seven-point Likert scale to assess their feelings, ranging from 1 (*very little)* to 7 (*very much)*.

4. Results

4.1 Descriptive Statistics

The mean score for the power manipulation in the high-power condition was significantly higher ($M = 5.23$, $SD = 0.98$) than in the low-power condition ($M = 3.00$, $SD = 1.05$, $t(252.43) = -17.47$, $p < .001$). Consequently, as expected, participants felt a higher level of power in the high-power condition than in the low-power condition, and the manipulation was successful.

Table 4 shows the proportion of participants who chose each option for each of the six conditions.

Table 4: Participants' choices across conditions

Condition	*N*	Chose Kevin Davis (Candidate A)	Chose Charles Thompson (Candidate B)	Chose William Anderson (Candidate C)
Control High Power	60	28.33%	61.67%	-
Control Low Power	70	27.14%	72.86%	-
Nudge A High Power	27	55.56%	40.74%	3.7%
Nudge B High Power	33	33.33%	66.67%	0.00%
Nudge A Low Power	36	22.22%	72.22%	5.56%
Nudge B Low Power	29	24.14%	75.86%	0.00%

The dash "-"indicates that the third option was not presented.

4.2 Scale Reliability

When multiple items are used to form a scale, they must be internally consistent. The items need to be correlated to one another since they should measure the same underlying concept (Vale et al., 1997). Cronbach's α is a useful coefficient to measure this internal consistency.

This study used Cronbach's α to analyze the reliability of the power manipulation check items. Cronbach's α for the four items used in this check was .84. According to research, a questionnaire has satisfactory internal validity if Cronbach's α is greater than .70 (Vale et al., 1997). Consequently, the power manipulation check showed satisfactory internal consistency between the items and could be considered reliable.

4.3 Bivariate Correlations

To determine the bivariate correlations between variables, dummy variables had to be created. First, the dummy variable for nationality was created. Since most participants were from Germany, this was coded as 1, while all other nationalities, which had only a few participants each, were coded as 0. Males were coded as 1, while females and nonbinary were coded as 0. To determine the employment status, two dummies were created. The first dummy was for students and was coded as 1. The second dummy was for employees and was also coded as 1. All other employment statuses were coded as 0. The same was done for education. The first dummy was created for participants who chose bachelor as their highest degree, and it was coded as 1. At the same time, a second dummy was created for participants who chose master as their highest degree, coded as 1. All other options were coded as 0. Additionally, two dummy variables were created for the choice of candidates. The choice of Candidate A was coded as 1, while other choices were coded as 0. The second dummy variable was coded for the choice of Candidate B. The choice of Candidate B was coded as 1, while other choices were coded as 0. Choosing the decoy candidate was coded as 0 in both cases. Additionally, two dummy variables were coded to display whether Decoy 1, Decoy 2, or no nudge were presented. The first dummy was coded as 1 if the decoy that nudged to Candidate A was presented, while other choices were coded as 0. The second dummy was coded as 1 if the decoy that nudged to Candidate B was presented, while other choices were coded as 0. In both cases, if no nudge was presented, it was coded as 0. Lastly, a dummy variable for power manipulation was created to represent whether participants received the high-power (1) or low-power (0) condition.

A correlation analysis was done to gain an initial understanding of the relationships among all variables (all bivariate correlations can be found in Table 5). According to the results, there was a strong, significant positive correlation between being in the high-power condition and choosing Candidate A, suggesting the possibility of power manipulation influencing candidate selection. Moreover, there was also a negative correlation between being in the high-power condition and the choice of Candidate B. However, there were no significant correlations between the two decoys and the choices of the Candidates, indicating that the nudge conditions

did not influence the choices. The correlations between the candidates' choices and power distance were not significant either, suggesting that power distance might not influence candidate selection.

Table 5: Bivariate Pearson Correlation

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	—												
2. German	.06	—											
3. Male	-.05	-.06	—										
4. Student	-.39**	-.02	.07	—									
5. Employee	.26**	-.02	-.09	-.77**	—								
6. Bachelor	-.08	-.03	-.02	.25**	-.18**	—							
7. Master	.10	-.08	.08	-.32**	.39**	-.50**	—						
8. Candidate A	.09	.05	-.10	-.09*	.02	-.05	.10	—					
9. Candidate B	-.11	-.04	.10	.11	-.02	-.04	-.08	-.974**	—				
10. Decoy 1	.02	-.02	-.06	-.02	-.12	.09	-.14*	.05	-.09	—			
11. Decoy 2	.04	.04	-.02	-.01	.06	.06*	.05	-.04	.06	-.33**	—		
12. Power condition	.12	-.10	.10	-.11	.08	-.14*	.08	.167**	-.158*	-.05	.07	—	
13. Power distance	.02	-.36**	-.01	.02	.05	-.03	-.03	.08	-.093	-.01	.03	.01	—

**. Correlation is significant at the 0.01 level (two-tailed)

*. Correlation is significant at the 0.05 level (two-tailed)

4.4 Hypothesis Testing

In this dissertation, a logistic regression was used to model the relationship between the dependent and independent variables. Logistic regression models are used for categorical outcomes, especially when the dependent variable is binary (Ambrosius, 2007). They are based on the odds of an outcome and estimate the probability that a given falls into one of two categories based on the independent variables (LaValley, 2008).

The two dependent variables of this dissertation were the choice of Candidate A and Candidate B. Dummy variables were created for both choices. Additionally, logistic regression can handle interaction effects between variables (Hosmer & Lemeshow, 2000), which is essential for testing the proposed hypotheses.

Four regression models were designed to analyze the influence of power dynamics and power distance on nudge effectiveness. The dependent variable of the first model was the choice of Candidate A. The independent variable in this model was the Decoy 1 nudge. The two moderator variables, power condition and power distance, were also included. The four interactions between these variables were also included to test the two hypotheses. H1 was tested through the interaction of the nudge condition and power condition, while H2 was tested through the interaction between the nudge condition and power distance. The second model was based on the first model but included the covariates, which allows for increasing the precision of the estimates. The third and fourth models were structured similarly to the first models, with the difference being that the dependent variable here was the choice of Candidate B, and the independent

Based on the logistic regression models, the results can be interpreted as follows: If the nudge variables (Decoy 1 and Decoy 2) were significant, it indicated that presenting the decoy had influenced the participant's choices. The two hypotheses weretested through interaction terms. H1 was tested by the interaction between the nudge condition and power manipulation, while H2 was tested by the interaction between the nudge condition and power distance.

The dependent variable of the first regression model was the choice of Candidate A. The R^2 of this model, which indicates how much of the variation is explained by the model (Akossou & Palm, 2013), was .05, suggesting that the model was only able to explain the variability in the choice of Candidate A to a limited extent on the basis of the predictors included. The results showed that none of the main effects or interactions were statistically significant. The exponentiated coefficient of the decoy that nudged to Candidate A was slightly less than 1

(*Exp(B)* = .90), suggesting that presenting the decoy may decrease the likelihood of choosing Candidate A, but the effect is not significant (p = .936). The exponentiated coefficient of power manipulation was also less than 1 but not significant (*Exp(B)* = .95, p = .956). Moreover, the exponentiated coefficient for power distance was 1 (*Exp(B)* = 1.00), however, the effect was not significant (p = .816). This model did not prove that power manipulation influences nudge effectiveness (*Exp(B)* = 3.40, p =.489). Moreover, the interaction between nudge conditions and power distance was not statistically significant either (*Exp(B)* = 1.00, p =.971).

The results for the second regression model, which included covariates such as gender, education, and occupation, remained largely unchanged. The R^2 improved to 0.10; this increase could be explained by the covariates of gender, student status, and job status being close to the significance cutoff (.05). However, the main variables and interaction effects were not significant. The exponentiated coefficient of the interaction between the nudge condition and power manipulation was above 1 (*Exp(B)* = 4.71) but not significant (p = .450). The interaction between nudge and power distance was also insignificant (*Exp(B)* = 1.00, p = .953). The covariates were insignificant as well.

The dependent variable of the third regression model was the choice of Candidate B, while the independent variable was the Decoy 2 nudge. The R^2 was 0.05. The coefficient for the nudge condition of this model was not statistically significant (*Exp(B)* = .21, p = .152). The exponentiated coefficients for the power manipulation (*Exp(B)* = .53, p = .443) and power distance (*Exp(B)* = .98, p = .240) were also not significant. The interaction between the nudge condition and power manipulation was not significant (*Exp(B)* = 1.28, p = .709), indicating no evidence that power manipulation moderated the effect of the nudge on the choice of Candidate B. The interaction between the nudge condition and power distance was also not significant (*Exp(B)* = 1.05, p = .086).

In the fourth regression, which was the second model for Candidate B and included covariates, the results remained consistent with the initial findings. In this model, the R^2 improved to 0.01. However, the main effects and interaction terms remained insignificant. The coefficients for student status (*Exp(B)* = 2.98, p = .026) and job status (*Exp(B)* = 2.47, p = .046) were above 1 and significant, indicating that being a student or employed significantly increased the likelihood of choosing Candidate B. All other covariates were not significant.

Across all four regression models, no significance on the main effects and the interaction terms could be found. Therefore, the two hypotheses were rejected based on these findings. There was no evidence in these models to prove that power dynamics and power distance

significantly influenced the choice of candidates. See Appendix 2 for the complete results of this analysis.

5. Discussion

5.1 Main Findings

The study of nudges has gained growing attention in recent years (Thaler & Sunstein, 2008). Previous research has analyzed the influence of the organizational context on nudge efficacy and how the cultural dimensions of individualism vs. collectivism influenced the acceptability and perception of nudges (Hagman et al., 2015; Lehner et al., 2016). However, the influence of power dynamics and power distance on nudge effectiveness in an organizational context has been neglected. This dissertation aimed to fill this gap by investigating the influence of power dynamics and power distance on the effectiveness of nudges within an organizational hiring context. Therefore, two hypotheses were developed and tested using logistic regression.

Hypothesis 1 suggested that System 2 nudges are more effective on individuals in low-power positions than individuals in high-power positions. This hypothesis was developed based on the approach/inhibition theory of Keltner et al. (2003). This theory suggests that power significantly influences psychological and behavioral responses by changing an individual's inclination to approach and inhibit, thus affecting how individuals make decisions and respond to their environment. In particular, this theory suggested that lower-power individuals think more analytically, leading to slower and more deliberate decision-making and thus engaging in System 2 thinking (Keltner et al., 2003). In contrast, high-power individuals rely more on their gut feelings and engage more in System 1 thinking (Keltner et al., 2003). Consequently, I hypothesized that these characteristics would make low-power individuals more susceptible to System 2 nudges, such as the decoy effect. The results of this dissertation analysis did not show a significant influence. The results indicate that power does not significantly increase the effectiveness of nudges used in this hiring scenario. Consequently, the findings do not align with the previously mentioned research. These results suggest that the hypothesized influence of power dynamics on nudge effectiveness may not exist or may be smaller than what this study had the power to detect.

Hypothesis 2 aimed to analyze whether the cultural dimension of power distance influences the effectiveness of nudges, especially whether nudges would be more effective in high-power-distance cultures. This hypothesis was developed based on the idea that it has been found that culture moderated power and that other cultural dimensions, such as individualism vs.

collectivism, have been found to influence nudge effectiveness (Triandis, 2001; Zhong et al., 2006). Therefore, it was plausible that power distance, as another cultural dimension, could moderate nudge effectiveness. However, the regression showed no significant relationship between power distance and nudge effectiveness. The nonsignificant results suggest that the influence of the cultural dimension of power distance on nudge effectiveness may not exist or may be smaller than what this study had the power to detect.

5.2 Academic and Managerial Implications

Although this dissertation's results are limited, the findings still provide valuable insights from an academic and managerial perspective. Previous research suggested that power influences behavior so that low-power individuals are more sensitive to threats and possible losses, leading to thinking more analytically, slower, and more deliberate decision-making (Keltner et al., 2003). Therefore, it was expected that low-power individuals who engage with more System 2 thinking are more susceptible to System 2 nudges, such as the decoy nudge. However, this dissertation's findings did not show a significant relationship between power and nudge effectiveness, suggesting that the influence of power dynamics on nudge effectiveness may not exist or may be smaller than what this study had the power to detect.

Additionally, studies have shown that the cultural dimension of collectivism can have a moderating effect on nudge effectiveness (Triandis, 2001). However, this dissertation's results did not find a significant influence of the cultural dimension of power distance on nudge effectiveness, suggesting that not all cultural dimensions are relevant to decision-making. These findings indicate that power dynamics and power distance alone may not be sufficient to influence nudge effectiveness.

Despite the nonsignificant results, managerial implications can be considered. The findings suggest that power dynamics and power distance may not significantly influence nudge effectiveness, indicating that nudge could be applied broadly across the different levels of these two variables. Consequently, managers can consider implementing nudges more broadly across different power levels and power distances.

5.3 Limitations

The findings of this study should be seen in light of some limitations. First, there were time constraints in the scope of the study; this mainly influenced the sample, where I primarily

recruited people from my network. Therefore, a large portion of the sample was from Germany, so the results do not offer a universal view and cannot be generalized.

Additionally, the study had 255 participants who finished the survey. It may be possible that the effects of power dynamics and power distance on nudge effectiveness do exist. However, due to the relatively low sample size, the study did not have the statistical power to detect smaller effects.

Moreover, in the original study of Keck and Tang (2019), the decisions in the control group were almost the same between the two candidates. However, in the control groups of this dissertation, at least 60% of the participants chose Candidate B and preferred technical expertise over prior work experience. The reason for the preference might be that over 70% of the participants had a bachelor's degree or higher. This bias might affect the results.

Another limitation due to financial constraints was that I could only conduct an online survey. In a controlled but realistic environment, real-life behavior can be captured more precisely, which would increase the validity of the results (Charness et al., 2012). This would allow me to better observe how individuals react to nudges in real life.

The measurement of the independent variable of power distance is another limitation. To not make the survey too long and overburden the participants, questions to determine individual power distance were removed. Instead, power distance was determined based on the participant's country. However, this approach leads to a risk of stereotyping, as not every participant aligns with the power distance score that Hofstede (2024) assigns to their country, which affects the validity of the results.

The last limitation I want to mention is the relatively low R^2 of the analyses, which indicates that, with the variables I included, only a limited part of the variation in the choice of the candidate, the dependent variable, is explained. The low R^2 indicates that other important factors that influenced the choice of the candidate were not involved in this dissertation.

5.4 Future Studies

The limitations discussed in the previous section should be addressed in future research. First, the sample should include more participants from different countries and different backgrounds. This would increase the generalizability of the results (Peterson, 2001). Additionally, this study had a relatively low sample size, and thus, future studies should replicate the results with larger

samples, which would increase the statistical power to detect possible smaller effects of power dynamics and power distance on nudge effectiveness.

Moreover, I recommend conducting a field experiment. This would increase the validity of the results since the studies would be carried out in a controlled, realistic environment that measures real behavior without relying on self-reported data (Charness et al., 2012).

Additionally, I recommend including an individual measurement of power distance, as was done by Dorfman (1988). This would allow the measurement of personal traits and beliefs, which would decrease the risk of stereotyping and increase the validity of the results.

Lastly, since this dissertation's model had a relatively low R^2, indicating that the model only explains a limited part of the variations in the dependent variable. As power dynamics and power distance alone are not sufficient to influence nudge effectiveness in hiring decision, other variables, such as personal traits and organizational factors (Judge & Cable, 1997), should be included.

By implementing these suggestions, the validity of future studies could be increased, leading to a better understanding of how nudge effectiveness is influenced in organizational contexts.

6. Conclusion

This dissertation aimed to answer the research question: How do power dynamics and power distance influence the effectiveness of nudges? Based on the theoretical background, two hypotheses were devised. To test these hypotheses, an online survey was conducted and analyzed. The results of this analysis did not show a significant influence of power dynamics and power distance on nudge effectiveness. Therefore, the findings of previous research are challenged. However, the findings of this dissertation should be analyzed further due to its limitations. A more diverse sample, a field experiment, and other variables could enable a better and deeper understanding of the interactions discussed here.

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Appendices

Appendix 1: Survey

Start of Block: Introduction

Q1 Dear Participant,

This research study is part of a master thesis at Católica Lisbon School of Business and Economics. The goal of the study is to analyze decision-making.

This survey is expected to take between seven and ten minutes to complete. Your participation is voluntary. The data will be used in an anonymous and confidential way, and your responses are only used for research purposes.

Please respond honestly to gather the most accurate data possible. If you have any questions, please do not hesitate to reach out to me at s-bpal@ucp.pt.

Thank you for your participation!

Best regards,
Bipendikt Pal

End of Block: Introduction

Start of Block: Demographics

Q21 In this section, please answer some questions about yourself.

Page Break

Q22 Where are you from?

▼ Afghanistan (1) ... Zimbabwe (1357)

Page Break

Q23 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer not to say (4)
- ○ Other (5) _____

Q24 How old are you?

_____

Q25 What is your current occupation?

- ○ Student (1)
- ○ Employee (2)
- ○ Self-employed (3)
- ○ Unemployed (4)
- ○ Retired (5)
- ○ Prefer not to say (6)
- ○ Other (7) _____

Q26 What is the highest level of school you have completed or the highest degree you have received?

- ○ Less than high school degree (1)
- ○ High school degree (2)
- ○ Bachelor's degree (3)
- ○ Master's degree (4)
- ○ Doctoral degree (5)
- ○ Other (6) _____

End of Block: Demographics

Start of Block: Power Manipulation

Q2 Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power— what happened, how you felt, etc. We ask you to write at least 80 words.

_____

_____

_____

_____

_____

Q3 Please recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a position to evaluate you. Please describe this situation in which you did not have power—what happened, how you felt, etc. We ask you to write at least 80 words.

_____

_____

_____

_____

_____

End of Block: Power Manipulation

Start of Block: Power Manipulation Check

Q4 How influential did you feel during the situation described?

- Very little (1)
- Moderately little (2)
- Slightly little (3)
- Neither too much nor too little (4)
- Slightly much (5)
- Moderately much (6)
- Very much (7)

Page Break

Q5 How in control did you feel during the situation described?

- ○ Very little (1)
- ○ Moderately little (2)
- ○ Slightly little (3)
- ○ Neither too much nor too little (4)
- ○ Slightly much (5)
- ○ Moderately much (6)
- ○ Very much (7)

Page Break

Q6 How influential do you feel now?

- ○ Very little (1)
- ○ Moderately little (2)
- ○ Slightly little (3)
- ○ Neither too much nor too little (4)
- ○ Slightly much (5)
- ○ Moderately much (6)
- ○ Very much (7)

Page Break

Q7 How in control do you feel now?

- ○ Very little (1)
- ○ Moderately little (2)
- ○ Slightly little (3)
- ○ Neither too much nor too little (4)
- ○ Slightly much (5)
- ○ Moderately much (6)
- ○ Very much (7)

Page Break

Q37 Please select "Slightly much"

- ○ Very little (1)
- ○ Moderately little (2)
- ○ Slightly little (3)
- ○ Neither too much nor too little (4)
- ○ Slightly much (5)
- ○ Moderately much (6)
- ○ Very much (7)

End of Block: Power Manipulation Check

Start of Block: Nudge

Display This Question:

If Condition = Control

And AndPlease recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to ...Text ResponseIs Displayed

Q33 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of two candidates. You will be making the hiring decision yourself. Both dimensions of expertise—prior work experience and technical competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

- ○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

- ○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

Display This Question:

If Condition = Control

And AndPlease recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a p...Text ResponseIs Displayed

Q36 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of two candidates. You will be making a suggestion to your manager about which candidate to hire. Both dimensions of expertise—prior work experience and technical competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

Display This Question:

If Condition = Nudge1

And AndPlease recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to ...Text ResponseIs Displayed

Q31 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of three candidates. You will be making the hiring decision yourself.

Both dimensions of expertise—prior work experience and technical competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

○ Option C:

Name	Work Experience	Technical Competence
William Anderson	6 years	BSc in engineering (3)

Display This Question:

If Condition = Nudge2

And AndPlease recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to ...Text ResponseIs Displayed

Q32 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of three candidates. You will be making the hiring decision yourself. Both dimensions of expertise—prior work experience and technical competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

○ Option C:

Name	Work Experience	Technical Competence
William Anderson	6 years	BSc in engineering (3)

Display This Question:

If Condition = Nudge1

And AndPlease recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a p...Text ResponseIs Displayed

Q11 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of three candidates. You will be making a suggestion to your manager about which candidate to hire. Both dimensions of expertise—prior work experience and technical competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

○ Option C:

Name	Work Experience	Technical Competence
William Anderson	6 years	BSc in engineering (3)

Display This Question:

If Condition = Nudge2

And AndPlease recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a p...Text ResponseIs Displayed

Q30 Imagine that you work in an aerospace company that is in need of a new client support engineer. This role requires both technical competence and prior experience in customer support positions. You will be reviewing the profiles of three candidates. You will be making a suggestion to your manager about which candidate to hire. Both dimensions of expertise—prior work experience and technical

competence—are important for this position. Please choose the best-qualified applicant based on the profiles provided.

○ Option A:

Name	Work Experience	Technical Competence
Kevin Davis	8 years	BSc in engineering (1)

○ Option B:

Name	Work Experience	Technical Competence
Charles Thompson	5 years	PhD in engineering (2)

○ Option C:

Name	Work Experience	Technical Competence
William Anderson	6 years	BSc in engineering (3)

End of Block: Nudge

Start of Block: Feedback

Q34 If you have any feedback, criticism, or issues you encountered during the survey, please let me know. Your input is highly valuable to me.

_____

_____

_____

_____

_____

End of Block: Feedback

Appendix 2: Regression Results

1. Regression Model

R^2:

-2 Log-Likelihood	Cox & Snell R-Squared	Nagelkerkes R-Squared
304.35	.05	.07

Results 1. Model:

	b	Standard Error of Regression	Wald	df	p	Exp(B)
Decoy1	-.11	1.36	.01	1	.936	.90
DummyPower	-.05	.93	.00	1	.956	.95
PowerDistance	.00	.02	.05	1	.816	1.00
PowerxPD	.01	.02	.40	1	.527	1.01
Decoy1xPD	.00	.03	.00	1	.971	1.00
Decoy1xPower	1.22	1.77	.48	1	.489	3.40
PowerxPDxDecoy1	-0.01	.04	.02	1	.880	1.00
Intercept	-1.22	.68	3.26	1	.071	.30

2. Regression Model

R^2:

-2 Log-Likelihood	Cox & Snell R-Squared	Nagelkerkes R-Squared
291.43	.10	.13

Results 2. Model:

	b	Standard Error of Regression	Wald	df	p	Exp(B)
Decoy1	-.20	1.60	.02	1	.899	.82
DummyPower	-.71	1.13	.04	1	.529	.49
PowerDistance	.01	.02	.10	1	.757	1.01
PowerxPD	.03	.03	.97	1	.326	1.03
Decoy1xPD	.00	.04	.00	1	.953	1.00
Decoy1xPower	1.56	2.05	.57	1	.450	4.71
PowerxPDxDecoy1	-.02	.05	.12	1	.725	.98
Gender	-.58	.30	3.79	1	.052	.56
Country	.60	.41	2.07	1	.150	1.81
DummyStudent	-.77	.51	2.35	1	.125	.46
DummyJob	-.81	.47	2.94	1	.087	.45
DummyBachelor	.31	.38	.69	1	.406	1.34
DummyMaster	.74	.39	3.61	1	.057	2.09

Average Power Manipulation	.14	.15	.94	1	.332	1.15
Intercept	-1.55	1.05	2.19	1	.139	.21

3. Regression Model

R²:

-2 Log-Likelihood	Cox & Snell R-Squared	Nagelkerkes R-Squared
307.85	.05	.07

Results 3. Model:

	b	Standard Error of Regression	Wald	df	p	Exp(B)
Decoy2	-1.56	1.09	2.05	1	.152	.21
DummyPower	-.64	.83	.59	1	.443	.53
PowerDistance	-.02	.02	1.38	1	.240	.98
Decoy2xPD	.05	.03	2.96	1	.086	1.05
Decoy2xPower	.25	.66	.14	1	.709	1.28
PowerxPD	-.00	.02	.02	1	.889	1.00
Intercept	1.68	.63	7.08	1	.008	5.39

4. Regression Model

R²:

-2 Log-Likelihood	Cox & Snell R-Squared	Nagelkerkes R-Squared
295.05	.10	.13

Results 4. Model:

	b	Standard Error of Regression	Wald	df	p	Exp(B)
Decoy2	-1.33	1.20	1.22	1	.268	.26
DummyPower	-.26	1.00	.07	1	.792	.77
PowerDistance	-.02	.02	1.61	1	.205	.98
Decoy2xPD	.04	.03	2.08	1	.150	1.04
Decoy2xPower	.09	.68	.02	1	.895	1.09
PowerxPD	-.01	.02	.09	1	.768	.99
Gender	.54	.30	3.35	1	.067	1.72
Country	-.54	.40	1.82	1	.178	.59
DummyStudent	1.09	.49	4.93	1	.026	2.98
DummyJob	.90	.45	3.98	1	.046	2.47
DummyBachelor	-.40	.37	1.14	1	.286	.67

DummyMaster	-.56	.38	2.18	1	.140	.57
Average Power Manipulation	-.11	.14	.62	1	.430	.89
Intercept	1.81	1.02	3.12	1	.077	6.08