Power and Posture in Negotiation: The Effect of One's Own Power and Posture of The Counterpart on Risk-taking and Stress.

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Abstract

Power fascinates and has proven to have an effect at the bargaining table (Anderson & Galinsky, 2006; Magee et al., 2007; Overbeck et al., 2010; Pinkley et al., 1994). Likewise, the posture of the counterpart during negotiations affects the negotiation process and performance: individuals tend to display the opposite posture of their interaction counterpart (Sinaceur & Tiedens, 2006; Wiltermuth et al., 2015). The presented study experimentally examined how one's own power and the posture of the counterpart affect the negotiation processes (in the form of stress) and outcomes (in the form of risk-taking). An online experiment (N = 248) was conducted, where a fictitious salary negotiation was carried out with an actor as hiring manager. Power was manipulated by two types of power priming (powerful vs powerless) and the posture of the hiring manager was also manipulated (submissive vs dominant). All participants faced same-gendered negotiation counterparts. Results showed that only power has a significant effect on stress and risk-taking during negotiations. The higher the sense of power individuals had, the less stress they experienced and the more risk they were willing to take during the negotiation task. Also, participants with more experience in negotiating had a significant decrease of experienced stress during the negotiation in comparison to less experienced participants. Theoretical and practical implications and limitations are discussed and suggestions for further research are provided.

Keywords: power, body posture, hierarchical role, negotiation outcome, negotiation process, risk-taking, stress.

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After almost six years of studying in Breda and Tilburg, I am very proud to say that I have come to the very end of my education journey. After receiving my bachelor's diploma at Breda University of Applied Sciences, I was certain that I wanted to develop myself further, in a specified field that I was genuinely interested in. A new adventure began; I started the intense Pre-Master's track during a lockdown and by the time I was finishing my Master's, I had never been on campus. Writing a Master's thesis is a whole new experience and a challenge in itself. It has not been easy, and there are a number of people who I would like to thank for guiding me through this period.

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Introduction

During a summit in Geneva in June 2021, United States president Joe Biden met the president of Russia, Vladimir Putin. Both sitting in a chair and surrounded by cameras, Putin sat leaning backwards, with his arms resting on the chair, legs apart and leaning back. In contrast, Biden crossed his legs, leaned slightly forward and turned slightly toward Putin with his body (see Appendix A). Here, body language spoke way louder than words (Civiello, 2021). Putin's nonverbal behavior is an example of power posing. Power posing refers to the embodiment of power by the expansion of one's body. It finds its roots in the animal kingdom: a peacock fans its feathers, a gorilla inhales largely until his chest bulges (Carney et al., 2010). On the other hand, powerless humans and animals make themselves small through a constricted and closed body posture: a dog places the ears closer to the head and tucks his tail under his body, a cat lowers his body and head (Horwitz, 2016) and an intimidated individual lowers its shoulders, and brings them closer to its body (Tiedens & Fragale, 2003). Next to the effect power has on one's bodily behavior, it can also be a key factor during social interactions, such as negotiations.

Being high in possession of power has proven to have an effect on the way one negotiates, which can be supported by the approach/inhibition theory. Findings by Magee et al. (2007) revealed that participants primed with power had a higher inclination to negotiate, higher tendency to firstly make a move (as opposed to low-power primed individuals) during debates, and to be the first to make an offer during a negotiation. An underlying explanation for this can be found in the approach/inhibition theory of power (Keltner et al., 2003), which states that the more power one has, the more one is likely to be approach- or action oriented, risk-seeking, attentive to gains instead of losses, and goal-oriented (Magee & Smith, 2013). This is explained by the activation of the behavioral approach and inhibition. The behavioral approach system

manages reward-related behavior (e.g., food, accomplishment, safety, social connection), whereas the inhibition system is comparable to an alarm system: When triggered by threats or possible punishments, it produces anxiety, increased awareness of dangers in the surroundings, and response inhibition (Anderson & Galinsky, 2006). The high possession of power is believed to activate the behavioral approach system as it is associated with greater access to rewards (Anderson & Galinsky, 2006). This theory sheds light on what the effect of power is on oneself: one tends to focus on their own goals, and on winning instead of losing, which can be used strategically during a negotiation.

Not only does one's own possession of power have an effect on negotiations, the posture of the counterpart during an interaction can also have a significant impact; where Biden chose to display a more submissive posture, Putin showed the opposite posture and seemed more dominant. The perception of nonverbal dominance in posture has proven to be correlated with physical strength (Keating, 1985), competence and status (Tiedens, 2001). Research shows that when one is confronted with either a submissive or dominant posture by a confederate, one responds with either one of two nonverbal reactions: postural mimicry or postural complementarity. The former arises when one decides to display the same posture as his or her counterpart, whereas the latter takes place when one chooses to display the opposite posture (when shown a dominant-postured counterpart, one tends to display a submissive posture and vice versa) (Tiedens & Fragale, 2003). In studies comparing both reactions, postural complementarity was most used and preferred by participants (Tiedens & Fragale, 2003; Bohns & Wiltermuth, 2012). The photo mentioned at the beginning of Biden and Putin showed an example of postural complementarity: where Putin displayed a dominant posture, Biden chose for a more submissive one. In sum, people tend to display a contrasting posture compared to their

interaction partners, which can lead to differences in the interpersonal hierarchy during interactions, such as negotiations.

Whether it is psychological or embodied power, the general possession of power causes individuals to focus more on rewards instead of punishments, which can be expressed in an increased tendency to take risks (Anderson & Galinsky, 2006; Carney et al., 2010). The sense of one's own power boosts optimism about the risks one incurs and eventually results in more risky actions during negotiations (Maner et al., 2007; Anderson & Galinsky, 2006). Also, Carney et al. (2010) proved that people posing dominantly take more risks as opposed to submissive individuals. It can, thus, be stated that a relation exists between the possession of power, the bodily expression of power, and risk-taking behavior.

Power not only has an effect mentally (on risk-taking) but has also shown to have an impact on physical arousal, like stress. Schmid and Schmid Mast (2013) showed that simply thinking about having power diminishes the fear of negative judgment and physiological arousal, like stress and nervousness, for instance during a self-presentation assignment. Moreover, power posing can also cause physical effects, as Bohns and Wiltermuth (2012) found that participants interacting with a dominant-posed confederate led to lower pain thresholds than for those interacting with a submissive partner. These findings show how a high level of both mental and physical power lead to a decreased experience of stress in the execution of different social interaction tasks.

In terms of physiology, the two main hormones differing most between high-power and low-power individuals are testosterone and cortisol (Ronay et al., 2016; Herbert, 2018). They constitute respectively the dominance hormone and the stress hormone. Powerful leaders often have high levels of testosterone and low levels of cortisol: they are dominant and are not very

sensitive to stress (Carney et al., 2010; Herbert, 2018). Carney et al. (2010) have proved that a dominant posture increases testosterone levels and decreases cortisol levels significantly. However, in Carney's study, this was an effect of posture on oneself. And although numerous studies have been performed on the effect of posture on oneself (Briñol et al., 2009; Welker et al., 2013; Nair et al., 2015; Turan, 2015; Latu et al., 2017), little research has been performed on the effect of postures on interaction partners (Tiedens & Fragale, 2003). The research that has been performed, however, did show evidence that individuals (sometimes unconsciously) tend to engage in postural complementarity (Tiedens & Fragale, 2003; Bohns & Wiltermuth, 2012). Therefore, it would add to the existing literature to investigate the effect of postures on participants, during negotiations. Moreover, the study by Bohns and Wiltermuth (2012) is one of the few studies on the physical effects of the embodiment of power on others, and it has shown that there is an effect on the pain tolerance of individuals. Consequently, it gives reason to investigate whether the physical experience of stress is also affected by dominant or submissive postures of one's interaction partner. Furthermore, as power holders often make decisions for (a part of) society, gaining knowledge and understanding the minds of power holders is important (Anderson & Galinsky, 2006). Lastly, a negotiation is an ideal setting in which to examine risk-taking and stress, as it provides participants something to win (or lose) and it gives options to take risks, which can all cause stress (Anderson & Galinsky, 2006).

The current study aims to gain more insight into the relationship between one's own power and the posture of the counterpart during a negotiation. By investigating this relationship, this paper will contribute to the growing body of knowledge on posture, power, and negotiation by researching the effects of power and the posture of the interaction partner on negotiation performance in terms of risk-taking and stress.

RQ: To what extent does one's own power and the posture of the negotiation partner influence stress and risk-taking during negotiations?

Theoretical Framework

In this study, the focus lies on the art of negotiation. The following section highlights the key areas in the scientific literature relevant for this research; starting with negotiations and the factors that can impact negotiation outcomes and processes, like power and posture of the counterpart. Next, light will be shed on the concepts of power and posture separately. Lastly, a possible interaction effect between posture and power on negotiation outcome and negotiation process will be discussed.

Negotiation

Negotiation takes place whenever individuals cannot accomplish their objectives without cooperation of others. It is an ever-present form of social interaction and a form of decision-making where two or more parties make an attempt to resolve their conflicting interests (Pruitt, 1981; Thompson et al., 2010). Nearly all research performed on the art of negotiation has focused on two dependent variables: negotiation processes and negotiation outcomes. The first contains the psychological processes of individuals during or after negotiations, such as emotion, cognition and attitude. Negotiation outcomes can be split into two themes: integrative and distributive negotiation components. An integrative approach towards a negotiation focuses on the assumption that the parties involved can have compatible interests and that a win-win result is possible. Therefore, it focuses on what the interest and intention of the other party is, to see if there is a possibility to satisfy both needs of the parties. On the other hand, a distributive approach of a negotiation only looks at one's own economic outcomes, which leads to a more competitive negotiation (Barry & Friedman, 1998; Thompson et al., 2010). The current study

investigates both negotiation processes (experience of stress during negotiation) and outcomes (risk-taking during negotiation) during a distributive negotiation.

Many factors can have an influence on the negotiation process and the outcome of the negotiation; one of which is the degree to which one feels powerful or powerless. It has been proven that the more powerful one feels, the more he/she is inclined to negotiate, to make the first move and to make an offer in the course of a negotiation (Magee et al., 2007). This is important, because making a first move or putting the first offer on the table has profound effects for the rest of the negotiation, as it sets the tone for the remaining negotiation, which benefits negotiators in organizational and personal situations (Gunia et al., 2013). High-power individuals are also more likely to communicate their preferences during a negotiation (Anderson & Galinsky, 2006), claim more value than low-power negotiators (Overbeck et al., 2010) and improve one's own and the joint outcome of the negotiation (Pinkley et al., 1994). The opposite is true for low-power individuals. Powerless negotiators are more likely to be affected by emotions in negotiations, which leads to bigger concessions being made by low-power individuals (van Kleef et al., 2006).

Not only does verbal communication shape the outcome of a negotiation, but also the nonverbal communication, like the posture of the counterpart, can have a considerable impact on negotiations (Adair & Semnani-Azad, 2011). Dominantly-postured negotiators are perceived as more powerful (Burgoon & Dunbar, 2006), and have a higher tendency to share their goals, whereas submissive negotiators tend to ask questions to make sure to satisfy their own goals, without creating confrontation with their dominant counterpart (Wiltermuth et al., 2015). Also, multiple studies confirmed that negotiation counterparts concede more when facing a dominantly, or tough, expressed individual than a more submissive, or soft, counterpart

(Komorita & Brenner, 1968; Yukl, 1974; Sinaceur & Tiedens, 2006). Moreover, high-power individuals who display a dominant posture claim more value in comparison to negotiations in which neither or both negotiators were dominantly-postured or the low-power individual had a dominant expression (Wiltermuth et al., 2018).

Taken together, one's own possession and experience of power and the posture of the counterpart have proven to play a significant role during negotiations and can have an effect on negotiation processes, in the form of stress experienced during the negotiation, as well as negotiation outcomes, by means of risk-taking behavior. The following paragraph will dive deeper into the scientific field of power.

Power

Power in general refers to the ability to control interactions with others (Ellyson & Dovidio, 1985), whereas power in a negotiation is described as the likelihood that a negotiator will affect a negotiation outcome toward the direction of their optimal result. Consequently, the more power one has, the more likely it is that the negotiation outcome will be most beneficial for that negotiator (Galinsky et al., 2017; Schaerer et al., 2020). Within the context of negotiation, power is also relative; the negotiation process and outcome does not only depend on one's own sources of power, but also on the sources of power of the negotiation partner (Galinsky et al., 2017). Power can be acquired from various sources, and Galinksy et al. (2017) identified the four most common sources of power in negotiations. The most studied source is the negotiator's Best Alternative to A Negotiated Agreement (BATNA): the possession of an alternative, in case no agreement is reached in the negotiation (Brett et al., 1996). If negotiators have a strong BATNA when entering a negotiation, they are not as dependent on the counterpart to achieve their goals,

as opposed to negotiators having a weak or no BATNA at all (Galinsky et al., 2017). The second source of power is information relevant for the negotiation (e.g., what the preferences or goals of the counterpart consist of), as this can lead to strategic advantages. Status is the third source of power, defined as the extent to which the negotiator is respected by the counterparty (Brett & Thompson, 2016). The fourth and last source of power is social capital, the extent to which a negotiator has set up and keeps to maintain a big and strong social network. All of these sources can increase the negotiator's chances of obtaining an optimal outcome, as they all offer advantages at the bargaining table (Galinsky et al., 2017). Power, from every source, has an effect on individual's both psychological (as for instance expressed in risk-taking behavior) and physical states (e.g. experience of stress), which will be discussed below.

Power and stress

The previously mentioned approach/inhibition theory explains how powerful individuals focus on rewards and goals and as a result, they are more approach-oriented. Having a low possession of power leads individuals to focus on threat, punishments, and social restrictions, consequently resulting in inhibition-oriented behavior (Keltner et al., 2003). This theory also describes that power increases the experience and expression of positive rather than negative feelings (Keltner et al., 2003; see also Berdahl & Martorana, 2006). Van Kleef et al. (2008) proved that as high-power individuals experience less empathy and compassion than low-power individuals, they have lower levels of experienced stress, even when their counterparts feel distressed. In addition, across four studies researching the connection between stress, power, and risk-taking, Jordan et al. (2011) found that unstable power and stable powerlessness produced more physiological stress. A study examining how power affected people's physiological

responses to stress showed that the powerful participants showed less stress while their hands were submerged in a bucket of ice water (Carney et al., 2013). Moreover, power even has a direct effect on the blood supply chain effectivity within the human body; the activation of high power evokes an efficient cardiovascular pattern, whereas the activation of low power activates an inefficient cardiovascular pattern. In other words, high power facilitates the effective mobilization and transportation of energy in motivated performance situations, such as managing a team (Scheepers et al., 2012). These studies prove that powerful individuals feel less stress in comparison to powerless individuals during various social interaction tasks.

Power and risk-taking

Multiple studies have proved that power can affect fundamental decision-making processes, particularly those that relate to decision-making under risk. Risky decision-making refers to the process of making decisions, where an individual's choice can produce either positive or negative outcomes (Maner et al., 2007). Based on the approach/inhibition theory, those possessing power are more focused on the potential gains associated with risky actions rather than dedicate attention to the potential threats and dangers. In addition, high-power individuals are more focused on positive feelings where low-power individuals place their attention to negative feelings (Keltner et al., 2003), and power leads directly to action (Galinsky et al., 2003). Confirming these claims, research on the possession of power has shown that the sense of one's own power boosts optimism about the risks perceived by oneself and eventually results in more risky actions during negotiations (Anderson & Galinsky, 2006). Maner et al. (2007) agreed that power can pave the way for risky decision-making. In sum, theoretical

reasons exist for believing that the psychological experience of power may enlarge the likelihood of risky decision-making in social interactions.

After looking at the effect of power on physical and psychological states, it is clear that power has an effect on both risk-taking behavior and experience of stress in social interaction contexts. Taking into account the outcomes of studies discussed above, it seems safe to assume that the effect of power possession can result in individuals taking more risks and experiencing less stress during social interaction tasks. The next paragraph will discuss the effects of posture on stress and risk-taking behavior.

Posture

Interactions between individuals are full of small behaviors showing the kind of social relationship people share (Argyle, 2013). In this paragraph, attention is drawn to the social context provided by the interaction partner. Although many researchers have focused on the effect of posture on oneself (Briñol et al., 2009; Welker et al., 2013; Nair et al., 2015; Turan, 2015; Latu et al., 2017), few scholars paid attention to the effect of postures on other individuals, such as interaction partners (Tiedens & Fragale, 2003). This paragraph will firstly describe postural mimicry and complementarity, and will then focus on the effect of posture on stress and on risk-taking behavior.

Postural mimicry and complementarity

As briefly mentioned in the introduction, at least two types of reactions exist on postures given by the interaction partners: postural mimicry, when the interaction partner chooses to display the same posture as his or her partner, and postural complementarity, when the

interaction partner chooses to display the posture opposite to his or her partner (Tiedens & Fragale, 2003). Tiedens and Fragale (2003) found through two studies that participants who are confronted with a dominant interaction partner diminished their posture, whereas those who were confronted with a submissive interaction partner, expanded their posture. In addition, participants who had partners making an opposite posture liked their interaction partners and felt more comfortable than those who showed the same posture as their interaction partner. Support for this can be found in interpersonal circumplex theories. Here, behavior is organized in categories, which are intercorrelated and the form of this ordering is circular, meaning there is no beginning nor an end (Carson, 1969). The message or behavior of the sender (encoder) evokes a condition of emotional engagement on a decoder, causing the decoder to counter communicate as the encoder desires, without being aware of complying. The encoder, too, is not aware a condition is being evoked. These circumplex theories imply that there are two dimensions in the analysis of social behavior: the control dimension (dominance and submission) and the affiliation dimension (hostility and friendliness). When one person behaves in one way, the other person (often unconsciously) behaves in a complementary manner. Thus, dominance pulls submission and submission pulls dominance (Wiggins, 1979; Kiesler, 1983; Argyle, 2013 p. 86). The preference of individuals for complementary posing has more recently also been proven by Bohns and Wiltermuth (2012). In sum, individuals are inclined to display postural complementarity when interacting with others: when faced with a dominant posture, one tends to display a submissive posture and vice versa.

Posture and stress

Displaying an expansive, dominant posture has been proven to have an effect on one's physical state and specifically, stress. A dominant pose decreases blood levels of cortisol, a hormone associated with stress and a lower social rank (Carney et al., 2010). A study which compared high-power versus low-power postures displayed before a stressful job interview (otherwise known as preparatory power posing), showed that those who prepared for the interview with a dominant posture had higher overall performance and consequently, were more likely to be hired (Cuddy et al., 2015). In other words, high-power posers deliver better performances under stress than low-power posers. Similarly, Nair et al. (2015) found that maintaining an upright seated posture during a stressful task maintains self-esteem, diminishes negative emotions, and enhances positive emotions in comparison to a slumped posture. These researchers even stated that having a dominant posture could be an easy and straightforward behavioral tactic to assist with building resilience to stress (Nair et al., 2015). Wilkes et al. (2017) examined the effects of an upright posture on people with mild depression during a stressful task, and provided evidence that an upright posture indeed leads to better performance in a stressful situation, in the form of less fatigue, increased speech and reduced first-person pronoun usage. Moreover, a closed, contractive and submissive posture has proven to stimulate negative thoughts, and have a negative impact on self-challenging behavior, as well as acute stress (Kwon & Kim, 2015). All in all, multiple studies have shown that a dominant pose leads to less stress during a social interaction, whereas a submissive posture can lead to increased levels of stress.

Posture and risk-taking

Dominant or submissive nonverbal behavior leads to a change in the participant's perception of their interaction partners. Nonverbal dominance in posture of people has been linked to physical strength (Keating, 1985), competence and status (Tiedens, 2001). In addition, Mazur et al. (1984) found that military cadets who, judged by college students, had a dominant face, actually received higher ranks by their final year at West Point than the cadets who had less expression of dominance in their face. In one of the few studies concerning the effect of posture on risk-taking behavior, Carney et al. (2010) found that dominant, high-power posing results in people taking more risks as opposed to submissive, low-power posing people. These researchers state that by taking on a certain posture, people prepare themselves to endure difficult or stressful situations, like a negotiation. Combining these results with the circumplex theories about postural complementarity, it can be stated that when individuals are confronted with a submissive partner, they take on a dominant posture (and vice versa) and as a consequence of adopting a dominant posture, they tend to take more risks (and vice versa). The next section will focus on the interaction effect of power and posture on stress and risk-taking behavior.

Interaction effect of power and posture

Power and dominance are similar but certainly not the same. Power refers to the ability to control interactions with others, and dominance (or submission) refers to the relative position in a social hierarchy (Ellyson & Dovidio, 1985). As suggested for further research by Wiltermuth et al. (2015), it would be interesting to explore the interaction effect of posture and power. This is because a connection exists between power and posture; elevated power is associated with dominance (Buss & Craik, 1981), and it has been proven that open physical states influence one's sense of power (Guillory & Gruenfeld, 2010).

By having a submissive-postured interaction partner, one is more likely to adopt a dominant posture due to postural complementarity (Tiedens & Fragale, 2003; Bohns & Wiltermuth, 2012). People who express themselves dominantly, actually feel as if they have power (Nair et al., 2015). In turn, powerful people experience less stress (Schmid & Schmid Mast, 2013) and take more risks (Anderson & Galinsky, 2006) during negotiations. Moreover, by priming participants with high possession of power, it is expected that one will have an increased tendency to take action (Galinsky et al., 2003) and will firstly make a move during a negotiation (Magee et al., 2007). By combining power in nonverbal communication of the counterpart (by posture) as well as the actual experience of power of oneself, one can argue that this will lead to the least amount of stress and largest increase of risk-taking behavior during negotiations.

Hypotheses

As discussed, both posture of the counterpart and power in a negotiation can have profound effects on the negotiation process (in the form of stress experienced in a negotiation) and negotiation outcome (in the form of risk-taking behavior in a negotiation). A high feeling of power increases risk-taking behavior and decreases stress, whereas a powerless feeling decreases risky decision-making and increases stress. The posture of the counterpart can influence one's own posture, as well as one's own feelings and experiences.

Firstly, it is expected that powerful people focus more on the rewards instead of the threats of a situation or conflict and act more action-oriented than powerless people. Also, they think more positively than low-power individuals, based on the approach/inhibition theory (Keltner et al., 2003). The combination of strong focus on rewards and optimism, which is frequently expressed by the powerful, indicates that the possession of power increases risky decision-making. In sum, high-power individuals are expected to show more risky decision-making and to experience less stress during a negotiation. Consequently, the following hypothesis is proposed:

H1: Compared to experiencing low power, experiencing high power leads to taking more risks and experiencing less stress in a negotiation, regardless of the posture of their interaction partner.

Secondly, based on the literature discussed in the posture section, it is expected that individuals will engage in postural complementarity and therefore will show and behave in the opposite manner of their interaction partner. Therefore, it is expected that, when faced with a dominant negotiation partner, one will adapt their behavior in a complementary manner and thus

exhibit submissive behavior traits. This will in turn lead to low-power behavior, expressed in taking less risks and experiencing more stress.

H2: Negotiating with a dominant-postured individual leads to taking less risks and experiencing more stress in negotiation than when facing a submissive-postured interaction partner, as a result of adopting a complementary posture.

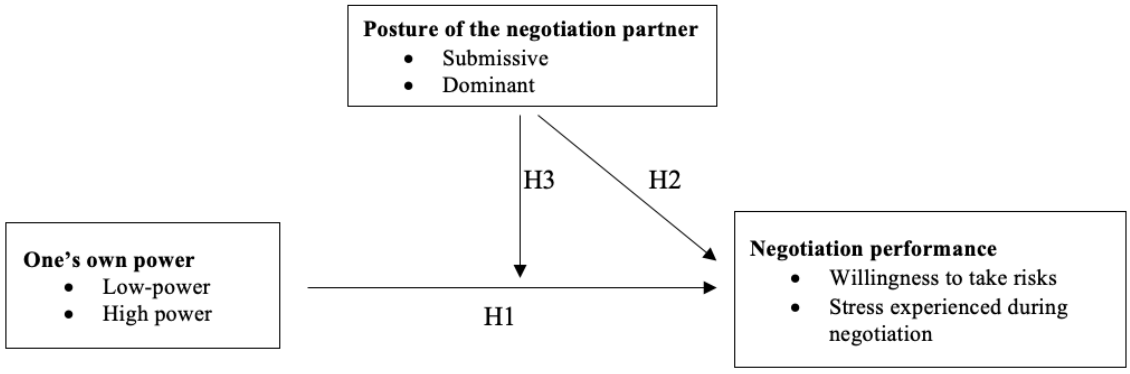
Lastly, an interaction effect is expected between power and posture on stress and risky decision-making. Specifically, powerful individuals who are faced with a submissive-postured counterpart are expected to experience the least amount of stress, and to display the most amount of risk-taking behavior during negotiations. This leads to the following hypothesis:

H3: Power and posture interact such that the experience of high-power combined with a submissive posture of the interaction partner leads to the least amount of experienced stress and most amount of risk-taking in a negotiation.

Centered around the reviewed literature and the proposed hypotheses, a conceptual framework has been developed in order to test the relationships between variables (see Figure 1).

Figure 1

Conceptual Framework.



Method

To be able to answer the research question in this study, a computer-mediated fictitious dyadic negotiation was carried out between two individuals who had no prior relationship or hierarchy.

Participants

For the current study, a total of 250 participants were recruited. Both men and women from ages 18 up, with all nationalities were welcome to participate in this study. Prior to analyzing, 14 participants were removed from the dataset due to useless data. A total of 236 participants were included in the final sample, of which 47% was male (N = 111), 52.5% was female (N = 124) and 0.4% preferred not to say (N = 1). Ages of the participants ranged from 18 to 72 years (M = 28.7, SD = 10.9). Most participants were Dutch (N = 162), followed by American (N = 12); other nationalities included Portuguese (N = 6), Greek (N = 5) and British (N = 5). The recruitment took place through snowball and convenience sampling, as the researcher made use of resources within her own network. Also, the survey was posted in multiple social networking sites and SurveyCircle to reach participants outside of the researchers' network.

Design

This study employed a 2 (power: high-power versus low-power) × 2 (posture: submissive versus dominant) between-subject experimental design. The dependent variable was negotiation performance, measured by risk-taking and stress experienced during the negotiation.

Stimulus materials

Within the current study, both independent variables power and posture were manipulated in each condition. The stimuli consisted of power priming, the posture of the negotiation counterpart (the hiring manager), script and the recorded videos of the negotiation confederate.

Firstly, the possession of the participants' power was manipulated through power priming. The participants were randomly assigned to either a high-power or low-power condition. The power priming within this study was based on Galinsky et al. (2003) and Magee et al. (2007), where one mentally recreates his or her experience with power. The researchers proved that having power in one setting is directly connected to taking action in another, unrelated setting (Galinsky et al., 2003, see also Lammers et al., 2013).

Participants in the high-power condition were shown the following text:

> *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.*

Participants who were assigned to the low-power condition saw the following text:

> *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.*

Next, the participants were asked to write down the scenario that they were thinking about.

Second, the posture of the negotiation counterpart was manipulated. Participants were again randomly assigned to either submissive or dominant posed negotiation counterparts. Based on research, including a meta-analysis, on nonverbal cues of dominance and prior studies conducted on dominant versus submissive postures (Argyle, 2013; Bohns & Wiltermuth, 2012; Carney et al., 2005; Hall et al., 2005; Tiedens & Fragale, 2003) the dominant and submissive postures contained the following characteristics:

Dominant postures consisted of the following characteristics:

- Spatial position: height, e.g., on a raised platform, or standing (though sitting is a sign of status on some formal occasions); taking up more space.
- Face: non-smiling, frowning; face with mature adult features.
- Voice: loud, low pitch, slow, low resonance, more interruptions, small latency, more talk, smooth and confident speech.
- Gestures: pointing at others, expressive, forthcoming.
- Open, expanded body posture, full height, expanded chest, forward lean.

Submissive postures showed the following traits:

- Constricted, closed body posture; sitting with the legs together, hands on their lap, lightly slouching.
- Speaking softly.
- Preserving physical space between them and the interaction partner.
- Aversion of gaze.
- Smiling, nodding.

An example by Bohns and Wiltermuth (2012) of dominant and submissive postures can be found in appendix B. The interaction partners were also asked not to do or wear anything that might stand out to the participants.

Third, videos for the recruiting manager were pre-recorded. Two students, a student actor and a student actress played the role of recruiting manager. To eliminate the confounding variable of gender, same gender interaction partners were used. Both actors were extensively instructed on how to behave, especially in terms of nonverbal behavior. The dominant or submissive posture was adopted by the interaction partners from the beginning of the negotiation until the end. Both actors were vertically recorded in the same room, and thus had exactly the same background. A total of 16 short video messages were recorded (4 videos per condition). A pretest was performed on all video messages to ensure the correct posture was brought across. Appendix B also contains the scripts used during the negotiation by the actors, and the videos can be communicated by request.

A negotiation scenario was set and communicated to the participants, based on Amanatullah and Morris (2010) and Verlaek (2020). Here, the participants were told that they were recent graduates of a master's Communication and Marketing program. This field was chosen, as it is very broad and therefore, more people could relate to this situation. In addition, participants were told that they had received two similar job offers from Wayne Cooperation and Tyrell Enterprises. However, Wayne Cooperation had a non-negotiable salary offer and was turned down immediately. Now they had the chance to negotiate with Tyrell Enterprises about their salary with the hiring manager. Fictitious companies were used to ensure there was no previous bias by the participants. Participants were also informed that their fringe benefits were average. To give the respondents an impression of the market, they were told that the average net

monthly salary of master graduates was 2300 EUR, based on the Tilburg University alumni facts page (Tilburg University, 2020). As the outcome of this negotiation task would decide their future income, the participants were motivated to maximize their profits. Appendix E contains the negotiation scenario given to the participants.

Pretest

Prior to the current research, a pretest was performed in order to confirm and validate the materials used for this study. A total of 35 participants participated in the pretest and gave their non-biased opinion. The pretest consisted of three parts.

In the first part, participants were asked to read either one of both power priming texts, answer the question (recalling a situation in which they felt powerful or powerless) and were then asked how they felt using a 7-point Likert scale (1 = very powerless, 7 = very powerful). Participants who were in the high-power condition, indicated that they indeed felt powerful (M = 5.83, SD = 1.34). The low-power priming text was also validated, with a mean of 1.88 (SD = 1.49), which refers to the value ‘powerless’.

In the second part, participants were put in the negotiation scenario (see Appendix E). Next, they were shown different amounts of monthly salary and they were asked to indicate how risky they would find to ask for certain amounts of money during a salary negotiation on a 6-point Likert scale (1 = no risk, 6 = extreme risk).

The third part regarded the postures of the actors. To validate that the poses expressed dominance and submissiveness, pretest participants were shown the videos of the same gendered actors and were then asked whether anything stood out to them. The majority of the participants, 73.4% (N = 26) found the nonverbal communication remarkable. Next, the participants were

shown five statements about the person they had just seen and were asked to rate statements on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Two statements included '*The person was dominant'* and *'The person was submissive'*. The dominant postures by the male were perceived as dominant (*M* = 5.78, *SD* = 1.72) and not as submissive (*M* = 1.67, *SD* = 1). Likewise, the dominant postures by the female were perceived as dominant (*M* = 5.50, *SD* = 1.60) and not submissive (*M* = 1.75, *SD* = 1.04). Respectively, the submissive postures by the male were correctly perceived as submissive (*M* = 6.00, *SD* = 1.31) and not dominant (*M* = 1.88, *SD* = 1.13). The submissive-postured female was also perceived as submissive (*M* = 5.90, *SD* = 1.29) and not dominant (*M* = 1.80, *SD* = 1.14). The other three statements included the characteristics respectful (*M* = 4.29, *SD* = 1.20), energetic (*M* = 3.60, *SD* = 1.06) and playful (*M* = 3.31, *SD* = 1.16), which were perceived as neutral by participants. These characteristics were chosen as these (as well as a dominant posture) are often associated with leadership (Abel, 2000). Lastly, the participants were asked to rate both the dominant and the submissive poses on a scale from 1 (very submissive) to 7 (very dominant), as done by Bohns & Wiltermuth (2012). The male dominant (*M* = 6.11, *SD* = 0.93) and submissive (*M* = 2.13, *SD* = 1.46) postures were confirmed to convey dominance and submissiveness, as well as the female dominant (*M* = 5.88, *SD* = 0.84) and submissive (*M* = 1.90, *SD* = 1.12) postures. More information about the pretest, such as results in detail and questions, can be found in Appendix G.

Measures

The current study measured the outcome of stress and risk-taking behavior during the negotiation.

The risk-taking behavior of the participants was measured by asking the participants each time after they entered a bid, *'How much risk do you think you take with your bid?'* with a 5-point scale (1 = no risk, 5 = extreme risk).

The stress level was measured via a questionnaire directly following the negotiation. Here, a slightly modified version of the self-report stress scale developed by Aiello and Kolb (1995) and also employed by Davidson and Henderson (2000) was used. The scale consisted of seven items, which all referred to the amount of stress the participant was feeling during the negotiation task. Each item was measured on a 7-point Likert scale (1 = strongly disagree, 5 = strongly agree). An example includes: '*I found the negotiation task stressful.*' and '*I found the negotiation task frustrating.'.* All items can be found in appendix C. After reverse-scoring item 3, 5 and 6, all seven items showed excellent reliability ($\alpha = .93$).

Control variables

People who had experiences in negotiation could benefit from their learnings and they could have had an advantage in comparison to individuals with no experience in negotiating (Kray et al., 2009). Therefore, negotiation experience was taken into account as a control variable. The following questions were used to establish a level of experience, based on Verlaek (2020) and Van der Meulen (2020): *'In your life, how often have you negotiated about something?'* and *'How often have you negotiated about your salary?'*.

Procedure

The participants were given a link to an online questionnaire in Qualtrics. Before they started the questionnaire, they had to read the informed consent form and give consent (see

Appendix D). The main points that were stated in this form was that they gave permission to voluntarily participate, their anonymity was guaranteed, and their data would be used for research purposes only. If the participants did not agree, the questionnaire ended immediately. After reading the informed consent form and agreeing with the terms and conditions, the experiment began.

The participants were firstly asked demographic questions regarding gender, age and nationality. Next, the participants were assigned to either one of four conditions (high or low power, submissive or dominant postured counterpart). The participants received either a high-power or low-power priming text and were asked to describe a situation in which they felt powerful or powerless (depending on the condition they were assigned to).

Next, the participants were provided with the negotiation scenario, which can be found in appendix E. A scenario description was shared with the participants which contained all information necessary to understand the context of the negotiation scenario (see Appendix E). After this, the participants were asked whether they understood the task they were given and whether they were ready to begin the negotiation. The highest possible salary that would be accepted by the hiring manager, was 2450 EUR. Inspired by Verlaek (2020), the participants were firstly invited to make an offer, after which they received a response from their hiring manager in the form of a video message. The hiring manager had either a submissive or dominant posture, depending on the allocated condition of the participant. However, the script of both conditions was exactly the same. If the first bid was above 2450 EUR, the offer was rejected and the manager would ask for a new, realistic offer. If the bid by the participant was under or exactly 2450 EUR, the manager would accept, and the negotiation would end. The participants were given the choice to either come up with a new offer each time it was rejected.

Participants got a total of three opportunities where they could give a new offer. If participants offered 2450 EUR or less, they were hired, and in other cases they did not get the job and the negotiation ended.

After the negotiation process, the participants were asked how stressful they found the negotiation task and were asked two questions concerning the control variables. Hereafter, a manipulation check took place. To test whether the posture of the hiring manager was perceived correctly, participants were asked to indicate to what extent they found their hiring manager submissive or dominant on a 5-point scale (1 = not at all, 5 = very much).

Lastly, participants were thanked for their participation and received a debriefing including the true research goal of the current study (see Appendix F). Also, contact information of the researcher was given in case participants would like to contact her for any further questions.

Results

To test the hypotheses proposed in this study, a 2×2 MANOVA was performed with the independent variables power (high, low) and posture of the negotiation counterpart (dominant, submissive), and the dependent variables stress and risk. The assumptions of normality and homogeneity were violated, therefore Pillai's Trace was reported for this analysis. Table 1 shows the mean scores for stress and risk in every condition within this study, together with the percentage agreements that were reached in the conditions.

Table 1

Mean Scores for MANOVA Type of Power, Type of Posture on Risk and Stress.

Posture	Dominant				Submissive			
Power								
	High power (N = 68)		Low power (N = 41)		High power (N = 55)		Low power (N = 72)	
Deal %	77.9%		85.4%		81.8%		77.8%	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Risk	2.99	1.21	1.89	1.52	2.58	1.45	2.16	1.31
Stress	2.75	0.96	3.10	1.06	2.62	0.91	3.10	0.93

Manipulation check

To test whether the dominant postured interaction partner was more perceived as dominant than as submissive, an independent samples t-test was conducted. The data for dominance perception was not normally distributed (z-score skewness = -0,56, z-score kurtosis = -3.54). Therefore, the *p*-value may not be reliable and more weight should be placed on the bootstrapped 95% confidence interval that will be provided. On average, individuals rated the dominant interaction partner more as dominant (M = 3.37, SD = 1.26), than as submissive (M = 2.57, SD = 1.29). This difference was statistically significant, $Mdif$ = -0.80, $t(234)$ =-4.81, p = .001 and can be generalized to the population, as the BCa 95% CI [-1.12, -0.45] does not cross zero. The difference represents a medium-sized effect d = 0.63. This supports the claim that the dominant negotiation partner was perceived more as dominant than as submissive.

Next, it was tested whether the opposite was also true: was the submissive postured counterpart also perceived more as submissive than as dominant by participants? Again, an independent samples t-test was conducted. The data for submissive perception was not normally distributed (z-score skewness = 5.13, z-score kurtosis = -1.12). Consequently, more weight should again be placed on the bootstrapped 95% confidence interval that will be provided. On average, individuals rated the submissive interaction partner more as submissive (M = 2.39, SD = 1.24), than as dominant (M = 1.61, SD = 0.96). This difference was statistically significant, $Mdif$ = 0.78, $t(234)$ = 5.34, p = .000, BCa 95% CI [0.51, 1.05], d = 0.70, which represents a medium sized effect. Note that the confidence interval does not cross zero, which supports the claim that the dominant negotiation partner was perceived more dominant than submissive.

Based on these results, the conclusion can be drawn that the postures of the actors were brought across correctly to the participants within this study.

Power, risk and stress

The MANOVA showed a significant main effect of power, $F(2, 231) = 12.92$, $p < 001$, *ηpartial2* = .101. Power had a statistically significant effect on risk ($F(1, 232) = 15.13$, $p < .001$, *ηpartial2* = .06) and on stress ($F(1, 232) = 10.40$, $p = .001$, *ηpartial2* = .04). A high sense of power resulted in more reported risk-taking ($M = 2.75$, $SD = 1.33$), in comparison to a low sense of power ($M = 2.07$, $SD = 1.39$). In addition, the powerful participants experienced less stress during the negotiation ($M = 2.70$, SD = 0.94) compared to the powerless participants ($M = 3.10$, $SD = 0.98$).

To test whether the risk-taking effect of power was also present in the first salary bids that the participants made, an independent t-test performed. The data for the high-power individuals was not normally distributed (z-score skewness= -3.24, z-score kurtosis = 1,66). Data for low-power individuals was normally distributed (z-score skewness = -1,02, z-score kurtosis = -0,91). Therefore, the *p*-value may not be reliable and more weight should be placed on the bootstrapped 95% confidence interval that will be provided. On average, the opening bid of the high-power individuals ($M = 2542.93$, $SD = 100.13$) was higher than the opening bid of the low-power individuals ($M = 2517.54$ $SD = 111.75$). This difference was not significant (*Mdif* = -25.39, $t(233) = -1.84$, $p = .077$) and does not generalize to the population (95% CI -52.33, 1.62). The difference represents a small-sized effect $d = .24$. Although the difference in the mean opening bid of the participants was not significant, the first bid made by the low-power

participants was accepted for 27,4% (N = 31) of the low-power participants, in contrast to only 13,8% (N = 17) of the high-power participants.

Posture, risk and stress

No statistically significant main effect of posture was found, $F(2, 231) = 0.13$, $p = .876$, $\eta partial2 = .001$. Posture had no significant effect on risk ($F(1, 232) = 0.01$, $p = .933$, $\eta partial2 = .00$) and stress ($F(1, 232) = 0.26$, $p = .610$, $\eta partial2 = .001$). A dominant counterpart resulted in slightly more risk-taking ($M = 2.51$, $SD = 1.41$), than a submissive counterpart ($M = 2.35$, $SD = 1.38$). In terms of stress, individuals faced with a dominant counterpart, experienced as much stress ($M = 2.88$, $SD = 1.01$) as those faced with a submissive counterpart ($M = 2.89$, $SD = 0.95$).

Interaction between power and posture on risk and stress

There was no significant interaction effect between power and posture, $F(2, 231)$, $p = .259$, $\eta partial2 = .012$. The interaction between power and posture was not significant for risk, ($F(1, 232) = 2.49$, $p = .116$, $\eta partial2 = .01$) nor for stress ($F(1, 232) = 0.24$, $p = .609$, $\eta partial2 = .001$).

Based on these outcomes, the following conclusions can be drawn. Priming the participants with high power in this study, resulted in significantly more risk-taking behavior and less experienced stress, in comparison to the participants who were primed with low power. Hence, hypothesis one is supported by the data. Posture did not have a significant effect on stress or risk-taking behavior during the negotiation in this study. Consequently, hypothesis two is not supported in this study. Finally, because no interaction effect was found, a combination of high-power priming and a submissive-postured interaction partner did not lead to the least amount of

stress and most amount of risk-taking. Thus, hypothesis three is also not supported. Table 2 provides an overview of the tested hypotheses and the enclosed results.

Additional analyses

To gain more insight into the collected data, a number of additional analyses were performed.

Experience on stress and risk

To test the relationship between experience in negotiating and level of stress, a correlation analysis was performed. On average, participants had negotiated about something in their life 6 - 10 times. Because the data were not normally distributed, a Spearman correlation was calculated to test the relationship between these two variables. There was a significant relationship between general experience in negotiations and experienced stress, Spearman r_s = -.16, p = 013. This means that 2.56% of the variance in stress is accounted for by experience in negotiation. As it indicates that there is a negative correlation, the more experience participants had in negotiations, the less stress they experienced during the negotiation.

To examine whether a correlation also existed between experience in negotiating and risk-taking, a second correlation analysis was performed. There was no significant relationship between general experience in negotiations and risk-taking behavior, Spearman r_s = .04, p = 559.

To further understand the effect of experience on stress, a two-way ANCOVA was performed with the covariate of experience. There was still a significant effect of power on stress after controlling for the effect of experience in negotiations, $F(1, 231) = 9.29$, p = .003. The covariate, experience in negotiation, was significantly related to stress, $F(1, 231) = 4.61$, p =

.022. It can account for 2% of the variance in the outcome. Especially the effect of power becomes stronger when adding negotiation experience. The beta value is negative (**β**= -.102; $t(231) = -2.14$; $p = .033$), which indicates that as the experience increases, the stress decreases, as shown by the correlation. Looking further, this effect mainly occurs when participants were in the high-power condition. As power increases, the relationship between experience and stress decreases (**β** = .318; $t(231) = 1.68$; $p = .094$).

Agreement, power and posture

To examine whether power or posture had an effect on the achievement of an agreement, a three-way log-linear analysis with 2 (agreement: yes or no) × 2 (power: high or low) × 2 (posture: submissive or dominant) factors was carried out. Separate chi-square tests were carried out to break down this effect. The main effect for agreement and power was not significant, $\chi^2(1) = 0.03$, $p = .869$. The odds ratio of powerful individuals to reach an agreement is 1.06 times greater than the likelihood of powerless individuals to reach an agreement, which can be seen as negligible. The main effect for posture and power was also not significant, $\chi^2(1) = 0.05$, $p = .817$. The odds of reaching an agreement are 0.93 times higher when faced with a submissive negotiation partner than when faced with a dominant negotiation partner, which can also be seen as negligible.

Table 2

Confirmation of Hypotheses

Hypotheses	*Results*
H1: Compared to experiencing low power, experiencing high power leads to taking more risks and experiencing less stress in a negotiation, regardless of the posture of their interaction partner.	Confirmed
H2: Interacting with a dominant-postured individual leads to taking less risks and experiencing more stress in negotiation than when facing a submissive-postured interaction partner, as a result of adopting a complementary posture.	Not confirmed
H3: Power and posture interact such that high-power combined with a submissive posture of the interaction partner leads to the least amount of experienced stress and most amount of risk-taking in a negotiation.	Not confirmed

Discussion

The following section summarizes and discusses the key findings in relation to the proposed hypotheses. In addition, the consequences of those findings, limitations of the research and suggestions for further research will be discussed.

Conclusion

The goal of the current research was to examine the effects of one's own power and the posture of the counterpart on the negotiation process (stress) and outcome (risk-taking). Results in this study showed that power had a statistically significant effect on both risk-taking and the experienced stress. As expected, a higher feeling of one's own power led to significantly more risk-taking behavior and significantly less stress experienced during the negotiation task (H1 confirmed). It was also expected that a dominant posture of the negotiation counterpart would lead to less risky behavior and more experienced stress (H2 not confirmed). In contrast, having a dominant counterpart resulted in slightly more risk-taking behavior by the participants. However, this difference was not significant. The stress scores were nearly the same in both posture conditions. Finally, no interaction was found between power and posture on risk and stress (H3 not confirmed).

In conclusion, the more powerful individuals felt, the more risk they were willing to take and the less stress they experienced throughout the salary negotiation task they were given. Also, the posture of the counterpart had no effect on their risk-taking behavior, nor on the stress experienced by the participants.

Theoretical implications

Power, risk-taking and stress

Building on previous research (Anderson & Galinsky, 2006; Keltner et al., 2003; Maner et al., 2007), this study suggested that power has an effect on the risk-taking behavior of negotiators. This was substantiated by the approach/inhibition theory, which suggests that powerful individuals focus more on the rewards, and powerless individuals on the threats of potential risks (Keltner et al., 2003). The findings of the current study are consistent with the previous scientific literature and present solid evidence that high-power individuals take significantly more risk during a negotiation than low-power individuals. The effect size of power was larger for risk-taking (medium effect size, $\eta partial2$ = .06) than for stress (small effect size, $\eta partial2$ = .04). One of the reasons that risk-taking had a larger effect size than stress could be that stress can be a contributing factor in the relationship between power and risk-taking, instead of a variable on its own (Jordan et al., 2011). Therefore, it could be that stress is a catalytic variable, whose presence facilitates the process of risk-taking. This could explain why power can have a bigger influence on risk-taking behavior than stress.

The present study also expected power to have a significant effect on the experience of stress on negotiators, which was proved in previous research (Jordan et al, 2011; van Kleef et al., 2008; Scheepers et al., 2012). This effect was again underpinned by the approach/inhibition theory, arguing that high-power individuals express and experience more positive feelings, and low-power individuals focus more on negative feelings, like stress (Keltner et al., 2003). The results of this study have provided evidence that power indeed has an effect on stress; high-power individuals felt significantly less stressed than low-power individuals. However, it should

be noted that both risk and stress were measured within this study by means of self-perception. Therefore, the data must be interpreted with caution, as there are a number of disadvantages to self-perception. Some individuals tend to answer self-perception questions in a socially desirable way (having an overly positive self-description), engage in acquiescent responding (agree with statements without regard to their content) or engage in extreme responding (tendency to use the extreme choices on a rating scale) (Robins et al., 2009). Vazire and Mehl (2008) also criticized self-perception methods, as they proved that people are not always their own best expert. Although self-perception measuring has also been used in previous studies regarding risk and stress (van Kleef et al., 2008; Nair et al., 2015), this may be a threat to the validity of measures of this research.

Posture, risk-taking and stress

In contrast to previous studies (Bohns & Wiltermuth, 2012; Carney et al., 2010; Tiedens & Fragale, 2003), posture did not have a significant effect on risk-taking behavior of the participants. Even though the manipulation check succeeded, and participants perceived the postures of their negotiation counterparts correctly as dominant or submissive, no effect was found. There are several potential explanations for this outcome.

A possible reason for the lack of finding a significant difference may lie at the setting of the experiment. The hypothesis regarding posture of the counterpart was based on multiple research papers on negotiations, which all took place in real life laboratory rooms (Bohns & Wiltermuth, 2012; Carney et al., 2010; Cuddy et al., 2015; Nair et al., 2015; Tiedens & Fragale, 2003; Wilkes et al., 2017). In contrast, the current study took place online, due to COVID-19 social distancing measurements being active at the time of data collection. There is evidence,

however, that differences exist between online and face-to-face negotiations due to an absence of interpersonal and communication cues. This can be explained by the fact that e-negotiating enhances the emotions of anonymity and social distance, which leads individuals to believe that the relationship is temporary (Thompson & Nadler, 2002). Also, virtual environments are seen as cold and emotionless by nature (Gomes et al., 2014). Differences also exist regarding nonverbal communication between face-to-face settings and videoconferences. Ebner (2017) constructed a model demonstrating the differences between face-to-face and videoconference negotiation, showing nonverbal elements that are significantly different between both communication settings. For example, eye contact is illusory and artificial, behavior is constrained (people do not get up and move around), there is no physical touch between negotiators, off-camera movements cannot be seen which result in losing information concerning stress or confidence (e.g. playing with one's hands) and some sense of distance exists in the negotiator's mind (Ebner, 2017). Moreover, in negotiation conversations, dominant individuals have the opportunity to take charge of the conversation, interrupting others and reducing interpersonal distances, as used by Wiltermuth et al., (2015). This may have caused the participants in this study to experience more distance from their counterparts and experience less stress as it was not a real-life situation. Moreover, the participants in this study were aware that it was not a real-time conversation they were having with their hiring managers, as they were shown pre-recorded videos and were not in a live video call with their negotiation counterpart. This may conclude that the papers on which the hypothesis of posture was based (Bohns & Wiltermuth, 2012; Carney et al., 2010; Tiedens & Fragale, 2003), would appear to be over-ambitious in its claims; as this study proves that posture has no effect during online negotiations.

Another explanation might be the age of the actors in this study. The actors who served as negotiation counterparts and interpreted the role of hiring managers were 23 and 22 years old. Although it was proved that their body language did come across correctly, their age might have had an impact on the risk-taking behavior and stress of the participants. Because the hiring managers were relatively young, and the participants' mean age was way higher (29 years), it could have caused a gap between the participants and the negotiation counterparts and affect the credibility of the actors. Previous studies show same-aged negotiation counterparts by making use of (undergraduate) students negotiating with each other (e.g. Tiedens & Fragale, 2003; Sinaceur & Tiedens, 2006; Wiltermuth et al., 2015; Wiltermuth et al., 2018). This finding suggests that it may not only be posture that has an effect on the negotiation, but also other appearance traits of the negotiation counterparts, such as age or clothing, which have to fit the total picture that is desired to come across.

Interaction effect between power and posture on stress and risk-taking

Although earlier findings found a relationship between posture and power (Buss & Craik, 1981; Guillory & Gruenfeld, 2010), the current study found no evidence an interaction effect exists between one's own power and the posture of the counterpart on stress and risk-taking behavior. A possible explanation could be that because the posture of the counterpart has shown to have no effect, it also does not have an effect in combination with one's own sense of power. It could also be due to the fictitious base and online environment in which the negotiations took place. The negotiations may have lacked a natural feeling of interaction, resulting in participants not taking the salary negotiation as seriously as they would have in real life and be less motivated to maximize their profits during the interaction with their negotiation partner.

The effect of experience on stress

An interesting finding within the current study was the negative correlation between experience in negotiation and level of experienced stress. Experience in negotiation was significantly related to stress and especially the effect of power became stronger when adding negotiation experience. Hence, the more experienced participants were, the less stress they experienced and vice versa. Less stress has also been demonstrated to improve negotiation agreements (Gomes et al., 2014). This is in line with earlier findings by Thompson (1990a, 1990b), which found that experience in negotiation leads to improved negotiation performance. Experience can therefore be seen as a catalyst of power: when one has experience in a task (in this case negotiation), it speaks for itself that one improves in that particular task, and as it has done, they have gotten more confident in executing that task (Brown & Johnstone, 2009).

Practical implications

There are a number of practical implications that arise from the findings of this study concerning negotiation performance. These can be valuable to people in their everyday life, especifically in professional fields where negotiation forms part of the job, such as lawyers and realtors, as these people can translate these findings into improvement of their social interaction. Firstly, as the results show that empowered people take more risks and experience less stress in negotiations, it is important that individuals focus on how they feel. This study shows that merely writing down a situation in which individuals felt powerful (or powerless) made a significant difference in their behavior and thoughts during the negotiation. This is in line with earlier findings, which found evidence that solely thinking of or writing about a powerful situation had an impact on behaviors of individuals (Galinsky et al., 2003; Magee et al., 2007;

Scheepers et al., 2012). Secondly, individuals should be aware that feeling low in power has consequences in a negotiation, as feeling powerless was associated with more stress and less risk-taking in negotiations within this study. Thirdly, posture within this study had no effect on the outcome of the negotiation, nor the process of the negotiation and therefore, not as much focus should be placed on the posture of the counterpart. Finally, practice makes perfect; the results showed a relationship between stress and experience in negotiations. The more experienced the negotiators were, the less stress they experienced during the negotiation task. Moreover, the effect of power became stronger when combined with negotiation experience. Thus, it is recommended that individuals gain experience in negotiating, as it has proven to significantly reduce stress and in turn improve negotiation agreements (Gomes et al., 2014).

Limitations and future research

Albeit this study has been carried out with caution, there are a number of limitations to the current study. As mentioned earlier, this research used self-report measures rather than measures of actual risk-taking behavior and stress, which could yield unreliable results, as it is assumed that people have the ability to introspect on their own behaviors and emotions. This has been proved in this study, for the risk-taking variable in combination with power. Results showed that the reported risk-taking of participants were significantly higher for high-power individuals, compared to low-power individuals. However, when taking a look at the salary bids the participants made, there was no significant difference. This could mean that there was a difference between how much risk high-power individuals think they took and how much risk they actually took. A reasonable approach to tackle this issue could be to use different methods to measure actual risk-taking behavior and stress. Suggestions and manners used by Jordan et al.

(2011) to measure risk include organizational decision-making scenarios, letting the participants play blackjack, giving the participants a balloon-pumping task or a gambling task (Carney et al., 2010). Measuring stress in an offline environment could be done by heart rate (Jordan et al., 2011; Nair et al., 2015) blood pressure (Nair et al., 2015), cardiovascular reactivity (Scheepers et al., 2012), salivary cortisol (measuring the stress hormone through saliva) (Carney et al., 2010). Moreover, a mix of self-perception measures and physiological arousal measures can be used (Nair et al., 2015). It would also be of interest to conduct more research on the difference between self-reported risk and actual risk on high-power individuals, as it seems that they have overestimated their risk-taking behavior within the current study.

The negotiation within this study was conducted online, which may explain why no evidence was found that posture has an impact on risk-taking behavior and stress. The studies upon which this study was based on, included all face-to-face negotiations. There is evidence, however, that differences exist between online and face-to-face negotiations due to an absence of interpersonal and communication cues. In comparison to face-to-face negotiations, online negotiations lead to lower levels of pre-negotiation and post-negotiation trust (Swaab et al., 2011). Also, online negotiators are less satisfied with their results, less confident of the quality of their performance (Naquin & Paulson, 2003), tend to engage more in risky interpersonal behaviors (Thompson & Nadler, 2002), are more likely to behave dishonest to their counterpart (Citera et al., 2004) and are less likely to show intent to collaborate (Purdy et al., 2000) than face-to-face negotiators. This can be explained by the fact that e-negotiating enhances the emotions of anonymity and social distance, which leads individuals to believe that the relationship is temporal (Thompson & Nadler, 2002). These findings suggest several courses of action for future research. A future study may focus on repeating the current research, but

including face-to-face negotiations and possibly also online negotiations. By adding online negotiations, it can be examined whether posture only has an effect on risk-taking and stress in offline negotiations.

Lastly, there is a twofold limitation on the participants and the negotiation task the participants were asked to carry out. First, the negotiation scenario was fictional and the participants were aware of this. This may have influenced how seriously the participants treated the negotiation task and their motivation to maximize their profits during the negotiation. However, previous studies which yielded significant results on negotiation were fictitious as well (Adair & Semnani-Azad, 2011; Anderson & Galinsky, 2006; van Kleef et al., 2008; Magee et al., 2007; Overbeck et al., 2010; Wiltermuth et al., 2018). It is still encouraged to examine whether a real-life negotiation and a fictitious negotiation would generate different negotiation processes and outcomes, although it might be slightly more difficult to study real-life negotiations. Second, due to the wide range of ages of the participants (18 to 72 years old) and the average age of 29 years old, it is possible that the participants could not empathize with the given scenario as well as desired. The scenario requested the participants to imagine that they were a recent post-master graduate, and negotiate from that point of view. This, however, could be difficult for aged participants who now, for example, are long past that life stage. Other negotiation research included less variation in age by using undergraduate or university students as participants (Adair & Semnani-Azad, 2011; Anderson & Galinsky, 2006; Magee et al., 2007; Overbeck et al., 2010; Wiltermuth et al., 2018). This limitation could be resolved by adding different scenarios for different age groups of the participants, so participants can imagine themselves better in the scenario provided. In addition, researchers could focus on one particular age group in terms of participants or let the participants negotiate with each other.

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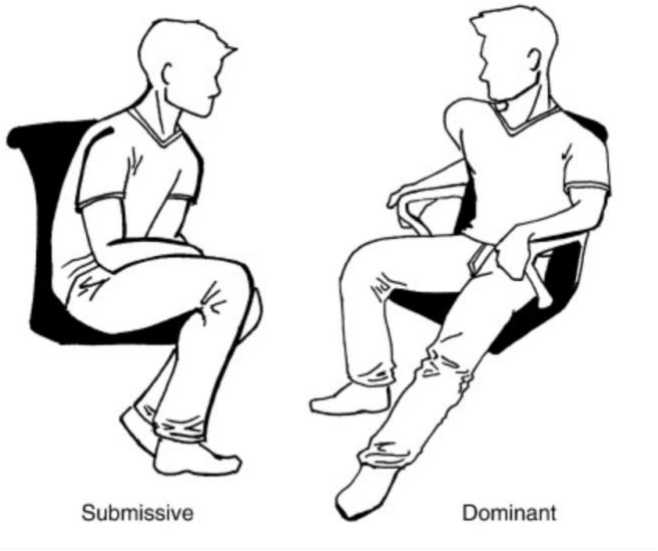
Appendices

Appendix A

Screenshot of the meeting between Joe Biden and Vladimir Putin

Appendix B

Examples of submissive and dominant postures and script of the actors



New offer 1

"Thank you for your bid. However, this offer is too high. Please make a new, and more realistic offer."

New offer 2

"Thank you for your bid. I'm sorry to tell you, but this is still too high. Please make a new, and more realistic offer."

Rejection

"Thank you for your bid. I'm sorry to tell you, but I don't think this negotiation is going to work. You are asking for more salary than I am willing to give you, so I think we should stop here. I wish you the best of luck in your career."

Accept

“Thank you for your bid. I’m happy to tell you that I agree with your bid and we have made a deal. Congratulations on your new job.”

Appendix C

Adapted self-report stress scale

1. I found the negotiation task stressful.
2. I found the negotiation task frustrating.
3. During the negotiation task, I felt comfortable (reverse score).
4. During the negotiation task, I felt uptight.
5. During the negotiation task, I felt calm (reverse score).
6. I would describe the atmosphere of the negotiation as relaxed (reverse score).
7. I would describe the atmosphere of the negotiation as stressful.

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Appendix D

Informed consent form

Dear reader, you are being asked to participate in a survey study conducted by a student from Tilburg University. This study focuses on the communication and negotiation strategies in online negotiations. Before you decide to participate in this study, it is of importance that you understand the purpose and procedure of the current study. The gathered data will be used in a Master Thesis of a Tilburg University student.

Procedure

During this questionnaire, you will be asked a series of questions and you will be asked to perform a series of tasks. Please note that the negotiation is entirely fictitious. At any time, you may stop your participation in the study without any negative consequences. At the beginning of this experiment, you will receive a description of a negotiation scenario that you will take part in. Please read that information carefully. Hereafter, you will be provided with more information and instructions as the study progresses. After the experiment, you will be presented with a small series of questions, which will take approximately 2 to 3 minutes to answer.

Storage of data

The information that is collected from you will be completely anonymous and kept private. Any information about you will have a number on it, instead of your name. Only the researchers will know what your number is, and we will lock that information up. Your personal information will not be shared with or given to anyone. If you agree to participate in this study, this means that

you also consent to the use of your data for the study. Your anonymous data will be stored in a password-protected cloud for a period of 12 months and will only be used for research purposes.

Please read this consent form carefully and discuss any questions you may have, or words you do not understand with the researcher. You may take your time to make your decision about participating in this study. If any questions come up before, during, or after the study, contact the researcher Emmy Schultz via e.m.schultz@tilburguniversity.edu.

Have you completely read the terms and conditions of this study and do you agree to voluntarily participate?

- I have read the consent form and I agree to participate in this research, thereby giving permission that my data may be used for scientific purposes.
- I have read the consent form and I do not agree to participate in this research.

Appendix E

Negotiation scenario presented to participants

Please imagine the following scenario: After a couple years of hard work and dedication, you have received a master's degree in Communication and Marketing. After celebrating, you go job hunting. Pretty soon you have already found two marketing companies (Wayne Cooperation and Tyrell Enterprises) that meet the requirements you are looking for in a new job. These two companies both have similar vacancies in the marketing and advertising field, and you decide to apply for both jobs. After several interviews, both companies offer you a job. So now you have two different job offers:

- **Wayne Cooperation** offered you a non-negotiable net monthly salary offer of 2300 EUR. Because you were not able to negotiate about your future salary, and your fringe benefits (benefits supplementing an employee's money wage or salary, for example a company car, private healthcare, etc.) are in line with what you expected, you decide to turn this offer down. The next offer you receive is much more interesting.
- **Tyrell Enterprises** offered you fringe benefits that were set and acceptable, but they would like to negotiate with you about your future monthly salary. You decide to take this chance and will now negotiate with the hiring manager about how much money you will make.

<u>What is the procedure of this online negotiation?</u> You will firstly start with an opening bid; this can be any amount. However, keep in mind that asking for too little may not be very handy, but asking too much comes with its risk: the manager can also decide that there is no match, and you will not be offered the job after all. After this offer, the manager will respond with either an

agreement (you get the job and the asked salary) or a non-agreement (you have a chance to make a new offer or you get rejected). You have a total of three chances to provide the manager with new offers, whereafter he/she will let you know whether he/she accepts it or not. If you do not come to an agreement with the hiring manager, you will not get the job that you want.

To give you an idea of the market, alumni with a MSc in Information and Communication Sciences have an average net monthly income of 2300 EUR. Keep in mind: what comes out of the following negotiation will be your future monthly net salary, so be sure to maximize your own profits, but be careful!

IMPORTANT: If you are filling this survey in on your phone, rotate your phone horizontally when making bids!

Appendix F

Debriefing

Dear respondent,

You have come to the end of this survey. Thank you for completing this experiment, all data will be securely stored. The true purpose of this study was not disclosed to you, as it may have influenced your outcomes. This would then weaken the validity of the results. Apologies for this deception.

The original statement that this study is interested in communication strategies in negotiations is true. However, this study focused on specific variables. The true goal of this study was to investigate what the effect was of one's own power and the posture of the counterpart on risk-taking behavior and stress during a negotiation. In the beginning of this experiment, you were asked to write down a situation in which you either felt very powerful or entirely powerless. This was meant to prime you with a sense of high or low power. Next, you had a negotiation with either a dominantly-postured or submissively-postured counterpart. These were pre-recorded videos by actors who were instructed on how to behave. This study looks into what the effect of your power (either a lot or a little) in combination with the posture of your negotiation partner is on the risk you took during the negotiation and the stress you felt afterwards.

As this is an ongoing research project, it is important that you keep the true goal of this study to yourself at least until the end of the data collection phase, which will be December 6th. In this manner, it is ensured that the answers of other respondents are not influenced by prior knowledge on this study.

If you still have questions regarding the survey or this debriefing or if you would like to receive the results of this study when these are finished, please do not hesitate to contact: e.m.schultz@tilburguniversity.edu.

Appendix G

Pretest Information

Outcome of question: 'How risky would you find it to ask for X EUR During the salary negotiation?'

EUR	**<2200**	**2200-2300**	**2300-2400**	**2400-2500**	**2500-2600**	**2600-2700**	**>2700**
M and SD	*M* = 1.46 *SD* = 0.82	*M* = 1.51 *SD* = 0.82	*M* = 2.09 *SD* = 0.70	*M* = 2.94 *SD* = 0.59	*M* = 3.77 *SD* = 0.60	*M* = 4.69 *SD* = 0.83	*M* = 5.54 *SD* = 0.98
Level of risk	No risk	Low risk	Low risk	Moderate risk	Significant risk	Severe risk	Extreme risk

Outcome of question: 'Did something stand out to you?'.

Q: '*Did something stand out to you?'*	Male dominant (*N* = 9)	Male submissive (*N* = 9)	Female dominant (*N* = 8)	Female submissive (*N* = 9)	Total average (*N* = 35)
The way the person acted verbally	22.2% (*N* = 2)	22.2% (*N* = 2)	25.0% (*N* = 2)	0	17.1% (*N* = 6)
The way the person was dressed	11.1% (*N* = 1)	0	25.0% (*N* = 2)	22.2% (*N* = 2)	14.3% (*N* = 5)

The way the person acted nonverbally	77.8% (*N* = 7)	66.7% (*N* = 6)	75% (*N* = 6)	77.8% (*N* = 7)	74.3% (*N* = 26)
The surroundings of the person	0	0	25.0% (*N* = 2)	0	5.7% (*N* = 2)
The way the person looked into the camera	11.1% (*N* = 1)	11.1% (*N* = 1)	12.5% (*N* = 1)	33.3% (*N* = 3)	17.1 (*N* = 6)
Yes, something else.	11.1% (*N* = 1)	0	0	11.1% (*N* = 1)	5.7% (*N* = 2)
No	11.1% (*N* = 1)	0	12.5% (*N* = 1)	0	5.7% (*N* = 2)

Posture ratings of female dominant/submissive and male dominant/submissive (agree/disagree with statements).

	Q1: The person was dominant.	*Q2: The person was submissive.*
Male dominant	Agree (*M* = 5.78, *SD* = 1.72)	Disagree (*M* = 1.67, *SD* = 1.00)
Female dominant	Agree (*M* = 5.50, *SD* = 1.60)	Disagree (*M* = 1.75, *SD* = 1.04)
Male submissive	Disagree (*M* = 1.88, SD = 1.13)	Agree (*M* = 6.00, *SD* = 1.31),
Female submissive	Disagree (*M* = 1.80, SD = 1.14)	Agree (M = 5.90, *SD* = 1.29)

Posture ratings of female dominant/submissive and male dominant/submissive (very submissive - very dominant).

Male dominant	Dominant (M = 6.11, SD = 0.93)
Female dominant	Dominant (M = 5.88, SD = 0.84)
Male submissive	Submissive (M = 2.13, SD = 1.46)
Female submissive	Submissive (M = 1.90, SD = 1.12)