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The role of norm violations and hierarchical concerns

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Social hierarchy is a fundamental feature of social relations. Hierarchies can undergo change because people are motivated to compete for a higher rank and the benefits that come with it. This begs the question of how one ascends the hierarchy. One may demonstrate skills to gain prestige, but one may also climb the ladder through dominance displays, such as norm-violating behavior. Norm violations, however, create irregularities and may instigate a status quo change depending on how people respond to them.

So how do people’s responses to norm violations influence the transgressor’s potential to climb the ladder? In the current dissertation I propose that people’s responses to norm violators depend on the context. More specifically, I investigate the cultural context where a particular norm violation occurs, the leeway of the domain in which a norm violation is evaluated, and the involvement of the observer’s self-interest. The studies reported suggest that people’s concerns about their own position in the hierarchy (i.e., hierarchical concerns) are crucial in understanding their responses to a norm violator, since the violator’s behavior threatens the established status quo and may subsequently alter their position.



THE DYNAMIC NATURE OF SOCIAL HIERARCHIES

THE ROLE OF NORM VIOLATIONS
AND HIERARCHICAL CONCERNS

THE DYNAMIC NATURE OF SOCIAL HIERARCHIES

The role of norm violations and hierarchical concerns

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The role of norm violations and hierarchical concerns

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CHAPTER 1

General Introduction

Imagine time as a river. You are flying high above it in a helicopter. Those distant stone statues are the pyramids of Egypt, piled under a burning sun by the pharaoh's subjects in evidence of their worship. That is the sea the Phoenician traders sailed across to spread their alphabet to unknown shores and leave an inexpugnable impact on human history. The long river next to the Great Indian Desert was once crossed by Alexander the Great's soldiers who followed his footsteps in conquering half the world. Now you can also track the four-thousand-mile-long wall that protected the Chinese empire against the raids and invasions of the wild tribes of the Eurasian steppe. On that hill in Canossa still stand the ruins of the fortress where the pope and the emperor fought over which one would be the legitimate lord of Christendom. Over there, the remains of the Incan and Aztec monumental temples echo back to the adventures of the Spanish conquistadors who sailed to far-off lands to allegedly rarify and essentially exterminate the native civilizations. And you can also hear the cries of the revolutionary party in France that stripped the monarch of his powers and beheaded feudalism to establish equality before the law. That dense pall of smoke comes from Moscow, burning in the midst of a wintry land where Napoleon's last soldiers perished. Getting closer, the guns of the World Wars are still thundering while poison gas is turning vast areas of the globe into wasteland. Dropping down towards the river, you see the waves of time flowing into the future. We do not know where the river goes, but its course so far reverberates that the drive to gain or preserve ascendancy has changed the face of the world. From trading expeditions and military campaigns to magisterial palaces and protruding fortifications, people would do everything to reach the high ground of the various hierarchies – political, organizational, and intellectual to name a few – even if their actions had to run counter to the laws of humanity.

The unfolding of history is often interwoven with dynamic changes of social hierarchies. From the moment they emerge and get established to the moment they are thwarted and collapse, social hierarchies have a profound impact on people's lives. It is thus important to gain additional insight into the mechanisms that influence how hierarchies evolve. In the current dissertation, I report a series of empirical studies (total $N = 5456$ across 24 studies) aimed at unraveling how norm violations can put the cogwheel of hierarchies into motion and how hierarchical concerns fuel this process. In this first chapter, I address the dynamic nature of social hierarchies and discuss the role of norm violations as a mechanism that can instigate a hierarchical change. I then review previous research on reactions to norm violators and explain how the inconsistent findings of this review motivated the empirical studies that constitute this dissertation. Finally, I provide an overview of the studies reported in this dissertation.

The Dynamics of Social Hierarchies

Hierarchy can be defined as an implicit or explicit rank order of individuals with respect to a valued social dimension, with higher-rank individuals possessing more of the valued dimension than lower-rank ones (Magee & Galinsky, 2008). Hierarchy is the predominant form of social organization that permeates both human and non-human primate societies (Fiske, 1993; Sapolsky, 2005; Sidanius & Pratto, 1999). Hierarchies emerge quickly and naturally within groups (Leavitt, 2005). Research shows that individuals infer a person's hierarchical standing on only seconds of observation (Ambady & Rosenthal, 1993; Cheng, Tracy, Ho, & Henrich, 2016; Magee, 2009; Todorov, Mandosodza, Goren, & Hall, 2005). These inferences can be based on a feature as subtle as nonverbal behavior (e.g., emotional expressivity, eye contact, body posture, loudness of voice; for a review see Hall, Coats, &

LeBeau, 2005) but also on other observable cues that could reveal one's hierarchical position (e.g., rule breaking behavior; Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). This line of research indicates that people hold rich stereotypes of the behaviors associated with different ranks and, when they observe others around them, they may use such cues to infer others' hierarchical standing (Keltner et al., 2008; Ridgeway, Berger, & Smith, 1985; Tiedens, Ellsworth, & Mesquita, 2000).

Hierarchies manifest themselves across different levels of analysis, which is evident in the plethora of hierarchy-related terms encountered in the literature. For instance, at the individual level, basal testosterone refers to a physiological correlate of desired dominance; at the interpersonal level, personal sense of power refers to asymmetric control over resources in social relations; and at the societal level, socioeconomic status (SES) refers to a subjective perception of one's relative standing in society. Although there are distinct differences among the various manifestations of hierarchies, they conceptually relate because they all suggest an individual's relative position on a low-to-high continuum, which has also been termed *verticality* (Hall et al., 2005).

A number of theories propose that the prevalence of hierarchies across so many levels stems from their instrumental value. Hierarchies are appealing psychologically because they function as a powerful antidote to uncertainty and chaos (Durkheim, 1893/1997; Hogg, 2001; Marx, 1844/1964; Parsons, 1961; Zitek & Tiedens, 2012). By providing social order, hierarchy helps fulfill an important cluster of human needs characterized by the desire for order, structure, and stability (Neuberg & Newsom, 1993; Sorrentino & Roney, 1986). Various theoretical and empirical accounts have suggested that hierarchies help organizations survive and prosper because they provide an effective means of coordinating activity by prescribing clear role expectations (Biggart & Hammlton, 1984; Greer & Caruso, 2007; Groysberg, Polzer, & Elfenbein, 2007; Overbeck, Correll, & Park, 2005; Ronay, Greenaway, Anicich, & Galinsky, 2012; van Vugt, Hogan, & Kaiser, 2008). Furthermore, the structure of hierarchy provides incentives for individuals to ascend to higher positions in their groups because higher rank affords greater material and psychological rewards (Tannenbaum, Kavčič, Rosner, Vianello, & Wieser, 1974). As such, hierarchy helps satisfy another set of human needs related to autonomy, internal control, and power (Deci & Ryan, 1987; McClelland, 1975; Porter, 1962; Rotter, 1966; Winter, 1973).

The above review suggests that hierarchies develop effortlessly and serve basic human needs, which subsequently explains why hierarchies tend to be reinforced and perpetuated (Magee & Galinsky, 2008). Despite this self-reinforcing tendency of hierarchies, there are countervailing forces and conditions under which hierarchies can become unstable and eventually undergo change or be disrupted. Hierarchies can sometimes have unintended and dysfunctional consequences (Leavitt, 2005), especially for those who stand at the bottom rungs. For example, hierarchy creates conditions of compliance that can institutionalize amoral reasoning and corruption (Brief, Buttram, & Dukerich, 2001; Kelman & Hamilton, 1989). Indeed, one of the primary forces that constrain hierarchical differentiation is the inclination towards fairness (Diekmann, Samuels, Ross, & Bazerman, 1997; Tajfel, 1982). This explains why hierarchies are more stable when they are steeped in legitimacy (van der Toorn, Tyler, & Jost, 2011), whereas illegitimate hierarchies tend to be unstable as lower-standing individuals may attempt a redistribution of resources (Kabanoff, 1991; Keltner, Van Kleef, Chen, & Kraus, 2008; Lammers, Galinsky, Gordijn, & Otten, 2008).

However, status contests do not only happen in illegitimate hierarchies. The quest for status is a fundamental human motive (Anderson, Hildreth, & Howland, 2015; Barkow, 1975; Frank, 1985; Hogan & Hogan, 1991). Competition for higher rungs of the ladder naturally occurs because being at the top comes with the luxury of material, psychological, and social benefits (Anderson, Willer, Kilduff, & Brown, 2012; Tannenbaum et al., 1974). Research but also history show that various conditions, processes, and incentives may conspire to upend current hierarchical arrangements: Some employees get promoted to higher ranks of the organizational ladder while others get dismissed; a new prime minister or president gets elected to office with direct consequences for all public sectors; populations rise up in revolt against current authorities to completely change the constitution. These examples demonstrate that individuals have a strong incentive to attain higher positions and thus hierarchies are subject to change. The dynamic nature of hierarchies may in turn breed concerns about one's position, what we henceforth define as *hierarchical concerns*. Seeking to fulfill their interests in the hierarchical struggle, individuals should be attuned to cues that indicate chances of climbing to or falling from a higher rung of the hierarchy ladder.

The question then arises as to how people ascend the social hierarchy. Literature documents several processes, but an increasing number of scholars has focused on two distinct paths that differ in how socially acceptable one's behavior is (e.g., Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Halevy et al., 2012; Henrich & Gil-White, 2001; Magee & Galinsky, 2008). One can attain a higher position by exerting extra effort to prove his or her worth and expertise. These qualities earn one prestige because they facilitate goal accomplishment in a certain context. This highlights the instrumental value of affording higher rank to competent individuals – we support someone at a higher position because this person's qualities are important to us or because the group can benefit from this person's behavior (Anderson et al., 2015). However, one may also attempt to climb the ladder by resorting to less socially desirable methods through the demonstration of dominance displays, such as sabotage and norm-violating behavior (Magee & Galinsky, 2008). It is the potential of norm violators to climb the ladder that is the main focus of the current dissertation. In the section below we will discuss the possibility that violating social norms shapes social hierarchies.

Norm Violations and Social Hierarchies

Social norms can be defined as rules or principles – implicit or explicit – that are understood by members of a group and that guide and constrain behavior without the force of laws to generate proper and acceptable conduct (Cialdini & Trost, 1998). Norms, like hierarchy itself, help regulate societies and keep them orderly (Friesen, Kay, Eibach, & Galinsky, 2014). They create a clear and well-defined paradigm of behavior that facilitates the functioning of individuals across multiple levels. On the interpersonal level, norms prevent one from embarrassment and increase the predictability of others' behavior (Cialdini & Goldstein, 2004). On the group level, they give expression to the group's central values, coordinate disparate activities, and ensure group survival (Kiesler & Kiesler, 1970). On the society level, they regulate expectations regarding who is to carry out what types of activities in certain hierarchical systems (Feldman, 1984). Consequently, following norms and living up to expectations help preserve the social order and protect the hierarchical status quo. Despite the instrumental value of social norms, norm violations – behaviors that infringe one or more principles of proper and acceptable behavior – are omnipresent (Van Kleef et al., 2011). Notably, norm violations in the current dissertation are behavioral and non-legal. We focused

on behavioral violations because they are discernible and appear across different domains of social life. Furthermore, non-legal norm violations leave more space for different interpretations and invite a broader range of responses than legal violations. But how do people's responses to norm violations shape social hierarchies?

Existing theoretical perspectives and empirical findings are inconsistent with regards to how people react to norm violations (Van Kleef, Wanders, Stamkou, & Homan, 2015). On the one hand, research shows that norm violations trigger negative affective and behavioral reactions in observers. For instance, norm violations evoke anger and blame (Helweg-Larsen & LoMonaco, 2008; Kam & Bond, 2009; Ohbuchi et al., 2004). Additionally, they invite various types of interventions and sanctions across a wide range of cultures (Gelfand et al., 2011). Similarly, ethological research in non-human primates has demonstrated that animals punish conspecifics who violate established rules, for instance through physical attacks and denial of access to important resources (Boyd & Richerson, 1992). These reactions suggest that violating norms is perceived as disruptive and harmful to the group and society at large, and that norm abidance is preferred (Marques, Abrams, Paez, & Martinez-Taboada, 1998). Indeed, research indicates that members who follow the norms of a group are strongly endorsed and likely to emerge as leaders (Anderson & Kilduff, 2009; Feldman, 1984; Hogg, 2001; Platow & van Knippenberg, 2001; van Knippenberg & van Knippenberg, 2005). Likewise, Kirkpatrick and Locke (1991) have proposed that individuals who show high integrity by adhering to the rules are more likely to emerge as leaders, an argument that is consistent with the finding that leaders who show a lack of integrity are more likely to fall from grace and lose their status (Yukl, 2010). Individuals who follow or embody the norms of a group are considered more committed to the group's ideals and thereby more trustworthy (van Knippenberg, 2011). Furthermore, norms create a clear and well-defined paradigm of behavior, which reduces uncertainty (Friesen et al., 2014). Given that uncertainty reduction is a fundamental human motive, members who observe the rules should be viewed in a positive light and those who break the rules should be degraded (Hogg, 2000).

On the other hand, despite these various negative reactions, norm violations can also bring about positive outcomes for the transgressor. One set of studies showed that individuals who violated prevailing norms were perceived as more powerful than individuals who behaved according to the norms (Van Kleef et al., 2011). Another series of studies showed that individuals who entered a boutique wearing gym clothes rather than appropriate attire or who attended a black tie event wearing a red rather than a black tie were ascribed higher status (Bellezza, Gino, & Keinan, 2014). These findings are consistent with evolutionary theorizing on costly signaling (Zahavi & Zahavi, 1997): Behaviors that are potentially risky or costly signal an underlying quality. Norm violations signal that the actor experiences the leeway to act according to their own volition in spite of situational constraints and potential repercussions (Stamkou & Van Kleef, 2014).

In addition to inspiring perceptions of power, norm violations may fuel power affordance, the process of advancing another person's position in the hierarchy by granting them power. Indeed, recent studies have shown that norm violators get afforded more power as long as the norm violation benefits observers (Popa, Phillips, & Robertson, 2014; Van Kleef, Homan, Finkenauer, Blaker, & Heerdink, 2012). Aside from the benefits of norm violation for the individual, norm violations can also bring about positive outcomes for the system. Certain types of events (e.g., a merger between two organizations, an economic crisis) may disrupt the established patterns in a hierarchical system and expose the current status quo as

problematic (Burkhardt & Brass, 1990; Hambrick & Cannella, 1993). This in turn makes the need for a change salient, so that people can adjust to the new situation (Boin & 't Hart, 2003). This may explain why in times of organizational crisis women – who violate gender norms about effective leadership – are perceived to be more suitable for senior management positions and are more likely to rise in the hierarchy (Haslam & Ryan, 2008; Ryan & Haslam, 2007).

Considering Norm Violations in Context

Research on reactions to norm violators informs inconsistent predictions regarding the relative potential of norm violators to be supported in higher ranks of the hierarchy. On the one hand, there is evidence that norm violators are less likely to be supported because of the negative consequences of their actions on group functioning. On the other hand, research suggests that norm violators are more likely to be supported because they seem powerful in the eyes of others or they respond to the system's need for reform. These divergent findings, however, make sense if we consider that social norms are fundamentally collective constructs that do not exist in isolation from the social world (Chiu, Gelfand, Yamagishi, Shteynberg, & Wan, 2010). Reactions to norm violations could therefore be altered by contextual variables, such as the prevalent values of a given culture (Price & Bouffard, 1974), the domain where the norm violation occurs (Griskevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006), and the involvement of the perceiver's self-interest (Van Kleef et al., 2012).

Social norms are embedded in a social context that involves the shared expectations of others. Therefore, responses to norm violations may depend on a society's perceived cultural norms, which influence how people are expected to behave in a given society (Goode, 2002). Research in pragmatics, for instance, has established that the evaluation of individuals who defy linguistic conventions (e.g., politeness principles) largely depends on the cultural context (Spencer-Oatey & Jiang, 2003). Other studies showed that the same situation affords a more restricted range of acceptable behaviors in one culture than another (Price, 1974). Furthermore, deviations from expected behavioral patterns were associated with a higher propensity for social censure in certain cultures than others (Gelfand et al., 2011; Price & Bouffard, 1974). These findings illustrate that cultures differ in the range of behavioral options considered appropriate in a given situation and bespeak the necessity of studying norm violations across cultures.

Like cultures, domains of social life also vary in the range of alternative appropriate behaviors they afford (Adamopoulos, 1982). Certain domains have a restricted range of acceptable behaviors and leave little room for individual discretion in determining behavior (e.g., the workplace), whereas other domains are more ambiguously structured and place fewer external constraints on individuals (e.g., entertainment). The extent to which domains afford or constraint opportunities for behavioral options has been referred to as *situational constraint* (Price, 1974; Price & Bouffard, 1974). This suggests that the leeway of the domain where the norm violation occurs is crucial in understanding people's reactions to norm-violating behavior.

A final consideration is whether the norm-violating act could promote the perceiver's self-interest. As mentioned above, norm violators may rise up the ladder as long as they benefit others (Popa et al., 2014; Van Kleef et al., 2012). For instance, Van Kleef and colleagues (2012) showed that a confederate who stole coffee from the experimenter's desk was afforded more power than a confederate who took coffee upon invitation, but only when he also offered coffee to the participant. In keeping with the finding that one's personal involvement modulates reactions to norm violators, other studies showed that observers are

more likely to express their disapproval to the degree that the deviant behavior affects them personally (Brauer & Chekroun, 2005; Chekroun & Brauer, 2002). Likewise, newcomers in groups are more likely to sanction a norm violator in public rather than in private and when observed by a high- rather than low-status audience, because these conditions offer strategic opportunities to enhance one's acceptance by the group (Jetten, Hornsey, Spears, Haslam, & Cowell, 2010; Noel, Wann, & Branscombe, 1995). Finally, groups may appreciate or accept deviations from normative standards if the deviance is perceived as beneficial for group functioning (Ellemers & Jetten, 2013). These empirical findings are consistent with recent theories that view the affordance of power and status as a social exchange – individuals afford power to the person who can advance the interests of the group (Keltner et al., 2008) and ascribe status to the person who possesses personal characteristics that could facilitate their own goal accomplishment (Anderson et al., 2015). These findings suggest that observers react towards norm violators, at least partly, in a self-serving manner.

In sum, I propose that contextual influences are part and parcel of norm violations. To understand reactions to norm-violating acts, research should study the cultural context where a particular norm violation occurs, the leeway of the domain in which a norm violation is evaluated, and the involvement of the observer's self-interest. In what follows, I elaborate on the empirical steps we took to examine the effects of these contextual factors on reactions to norm violators.

Moderators of Reactions to Norm Violations

Cultural Values

We approached cultural values from an intersubjective perspective, that is, values that are perceived to be widespread in one's culture rather than one's own values and beliefs. A first cultural dimension that is relevant in relation to norm-violating behavior is individualism-collectivism. In collectivistic cultures, individuals' identity is thought of as being embedded in the larger social context. The cultural ideal is to meet the duties and obligations of one's social role in order to maintain group harmony (Miller, Bersoff, & Harwood, 1990). Given that norms give expression to the group's central values and increase the predictability of group members' behavior (Kiesler & Kiesler, 1970), violating norms could jeopardize group harmony. Norm violators thus defy their duties and obligations as group members, and this may reduce their chances of rising to the top in collectivistic societies.

A second cultural dimension that is pertinent to norm violation is cultural tightness-looseness. The defining characteristic of this dimension is the importance that is assigned to maintaining social order. Tightness is associated with stronger norms and lower tolerance of deviant behavior, which restricts the range of behavior that is deemed appropriate across situations (Pelto, 1968; Triandis, 1989). Individuals in tight cultures are more concerned with conforming to normative rules and have psychological qualities that promote social order, such as higher need for structure and self-monitoring ability (Gelfand et al., 2011). Since norm violations, by definition, break with a pre-existing structure, norm violations may be considered a threat to the social order and successful coordination in tight cultures, and this may diminish norm violators' chances of rising to the top in tight societies.

We therefore expected that people in tighter and more collectivistic cultures would be less willing to support norm violators to a higher hierarchical position as compared to people in looser and more individualistic cultures. We examined the effect of cultural values by investigating the extent to which people would support a norm violator as leader across 19 countries.

Leeway of Domain

The freedom to endorse deviant views relates to the situational constraint of the domain. In domains of high situational constraint (e.g., the workplace), deviations from expected patterns are associated with an increased likelihood of social censure (Mischel, 1977). Previous research has shown that situations such as those encountered in the workplace (e.g., job interviews, work meetings) are high in situational constraint and elicit higher self-monitoring as well as approval-disapproval by others (Price & Bouffard, 1974; Gelfand et al., 2011). In contrast, domains of lower situational constraint feature less rigidly shared perceptions and a wider repertoire of behavioral scripts that are considered acceptable. There is therefore less accountability and sanctioning about one's ideas, so individuals have more discretion and a wider range of acceptable behaviors. Art, for instance, is a domain of low situational constraint, as deviation from established aesthetic norms is generally associated with greater innovativeness and creativity.

Those who evaluate artworks may also experience greater leeway to endorse artworks that deviate from normative standards. Individuals often discuss their taste for a particular artwork without feeling the urge to converge with other people's taste. Indeed, previous studies have shown that people do not mind being in the minority on a taste dimension as much as being in the minority on an opinion dimension (Spears, Ellemers, & Doosje, 2009). The famous proverb "de gustibus non est disputandum" (there is no accounting for taste) illustrates that topics that are considered subjective, such as taste for art, afford a greater scope for the endorsement of divergent views (Griskevicius, Goldstein, Mortenses, Cialdini, & Kenrick, 2006; Santee & Maslach, 1982). This also facilitates the development of art over time, which, according to art historians, is the result of an unquenchable thirst for novelty (Gombrich, 1995; Martindale, 1990). Although innovation and change are fostered in the field of art, these same processes may result in less predictability and order, the formation of weaker norms, and a greater degree of deviant behavior. This is succinctly expressed in Andy Warhol's motto "art is anything you can get away with" (an idea that was originally proposed by media theorist Marshall McLuhan).

In consideration of the above arguments, we expected that in the domain of art people would be more willing to give credit to and promote artists who break the rules than artists who follow the rules. To examine whether the art domain provides a fertile ground for the promotion of deviant ideas we investigated whether artists whose style deviates from normative artistic standards would gain greater impact than artists who follow normative standards. Artistic impact is the currency that gives artists standing and access to valuable resources, thus elevating their position in the artistic hierarchy (Schonfeld & Reinstaller, 2007).

Engagement of Self-interest

Hierarchies are being formed and reinforced because of their instrumental value (Magee & Galinsky, 2008). People support someone at a higher rank because this would eventually benefit group functioning or individual goal attainment (Anderson et al., 2015; Keltner et al., 2008). Likewise, when individuals decide whether they would support a norm violator they may be concerned about the impact such a status quo change would have on their own standing in the hierarchy. The experience of hierarchical concerns however is asymmetric across different strata of the hierarchy. Individuals in higher-standing positions are highly motivated to maintain their advantageous position and they may experience more threat when confronted by possible loss of status (Blader & Chen, 2011; Chen, Brockner, & Greenberg, 2003; Chen, Peterson, Phillips, Podolny, & Ridgeway, 2012).

In support of this argument, those who perceive themselves to have high status become angry when confronted with a competing claim for high status (Troyer & Younts, 1997). Similarly, individuals on top of the hierarchy show less support for redistributive policies that aim to reduce social inequality (Brown-Iannuzzi, Lundberg, Kay, & Payne, 2015) and restorative justice interventions that intend to enhance social opportunity (Kraus & Keltner, 2013). There is also evidence that individuals in high-ranking positions make more conservative decisions when the status quo is perceived to be in jeopardy (Maner, Gailliot, Butz, & Peruche, 2007). In contrast, individuals in low-ranking positions are more likely to favor material allocation that facilitates social change (Scheepers, Spears, Doosje, & Manstead, 2006).

In sum, individuals who rank high are more keen to maintain social hierarchies than individuals who rank low. As a consequence, behavior that threatens the stability of the extant status hierarchy, such as norm-violating behavior, would be particularly punished by individuals who stand on top of the hierarchy. We therefore expected that high-ranking individuals may reject a norm violator's claim to rise up the ladder to a greater extent than low-ranking individuals. We examined the effect of the perceiver's hierarchical position by investigating the extent to which individuals' support for a norm violator as leader varies as a function of their own position in the hierarchy. Importantly, individuals' hierarchical position was operationalized as both a stable trait and a transient state because the former is a more proximate and enduring case of hierarchy-maintenance motives and concomitant hierarchical concerns than the latter.

Hierarchical Concerns and Attention to Relevant Emotions

Hierarchical concerns are important in understanding people's responses to norm violators since their behavior may threaten the established status quo and potentially alter one's hierarchical position. We therefore expected that hierarchical concerns may also shape people's attention to other information that signals a threat to their position. Indeed, several theoretical accounts suggest that when hierarchical concerns are high, as is often the case with illegitimate hierarchies, high-ranking individuals become vigilant to threat, whereas low-ranking individuals seek to restore justice and may consequently become more attentive to situations that afford an opportunity to advance their hierarchical position (Keltner, Gruenfeld, & Anderson, 2003; Keltner et al., 2008). Empirical studies also showed that, when individuals seek to fulfill their interests in the hierarchical struggle, they get attuned to cues that indicate chances of losing or gaining a higher position (Greer & Van Kleef, 2010).

Specifically, we propose that hierarchical concerns and concomitant status striving goals are informed by specific emotion cues, given emotions' quality to convey information to an observer about an expresser's social intentions (Fischer & Manstead, 2008; Keltner & Kring, 1998; Kim & Pettit, 2014; Van Kleef, 2009). Anger displays are particularly relevant in the context of hierarchy disputes. Anger signals an aggressive tendency and antagonistic dominance (Davis et al., 2011; Hess, Adams, & Kleck, 2009). Attention to others' anger may therefore be useful for high-ranking individuals who are concerned about losing their position. In contrast, fear signals weakness and lack of control over the situation (Davis et al., 2011; Frijda, Kuipers, & Ter Schure, 1989). Attention to others' fear may thus be especially relevant for low-ranking individuals who are concerned about their unfair position as they may be motivated to attain higher rank by attacking apparently vulnerable high-ranking individuals (Fischer & Manstead, 2008).

Considering the above, we expected that individuals' attention to emotions depends on their hierarchical concerns and the relevance of the specific emotion within a given context. To test this prediction we examined whether attention to anger and fear expressions varies as a function of individuals' hierarchical concerns.

Overview of the Chapters

The four empirical chapters (Chapters 2, 3, 4, and 5) of the current dissertation test different parts of the preceding theoretical argumentation.

In Chapter 2 we examined the role of culture in people's tendency to support norm violators as leaders. Collectivistic cultures value group harmony and tight cultures value social order. Based on this reasoning, we predicted that individuals in more collectivistic and tighter cultures would support norm violators as leaders to a lesser extent than individuals in more individualistic and looser cultures. To test this prediction we presented participants in 19 countries (total $N = 2369$) with a norm-violation or a norm-adherence scenario and we asked participants to report on the extent to which they would support the focal actor as leader. To further examine the underlying processes that account for the effects of culture on leader support to norm violators, we assessed individuals' perceptions of the actor's power and felt moral outrage in response to the actor's behavior.

In Chapter 3 we studied whether people would be willing to endorse targets who break rules in the art domain. Given the limited situational constraint of the art domain, we expected that artists whose work deviates from prevalent norms of artistic expressions would gain greater artistic impact than artists who follow these norms. We specifically predicted that artists whose work deviates from the realistic representation of objects (realism deviance), their own previous style (intrapersonal deviance), and/or other artists' styles (interpersonal deviance) would gain greater impact than non-deviant artists. We tested this prediction for each type of deviance in 6 studies (total $N = 1000$) that focused on several aspects of artistic impact. To investigate the realism deviance hypothesis, participants assessed the perceived influence of artists who produced either non-realistic or realistic artworks (Study 3.1), they were asked to choose among an artist's non-realistic and realistic artworks, and they reported their tendency to purchase products depicting an artist's non-realistic and realistic artworks (Study 3.2). To investigate the intrapersonal deviance hypothesis, participants assessed the perceived influence of artists as well as the valuation of their artworks when those either deviated from their previous style or consistently followed a single style (Study 3.3). We also investigated whether the intrapersonal deviance effect would be stronger when artists transitioned from a realistic style to a non-realistic one rather than vice versa (Study 3.4). To investigate the interpersonal deviance hypothesis, we estimated participants' perceptions of the artist's influence as well as their valuation of and implicit attention to the artist's work, which either deviated from their contemporaries' style or followed the predominant style of their era. We also investigated whether interpersonal deviance was stronger when artists strayed from a predominant realistic style using non-realistic means of expression than when they strayed from a predominant non-realistic style using realistic means of expression (Studies 3.5 and 3.6). Finally, we examined the role of perceived willpower (Studies 3.4 and 3.6) in explaining the effects of deviance on artistic impact.

In Chapter 4 we aimed to investigate the role of individuals' hierarchical concerns by examining whether their tendency to grant power to norm followers versus norm violators is moderated by their own position in the hierarchy, that is, their verticality. Because norm violations threaten the status quo, we predicted that high-verticality individuals would be less

likely to grant power to norm violators compared to low-verticality individuals, because high-verticality individuals are more likely to support social stratification. We examined this prediction in 14 studies (total $N = 1704$). In the first thirteen studies (Studies 4.1 to 4.13), we measured participants' trait verticality (operationalized through sense of power, socioeconomic-status, and prenatal exposure to testosterone) and/or manipulated state verticality (operationalized through power position, status, and dominance). Trait verticality reflects a more enduring state of hierarchy-maintenance motives than state verticality does. Examining both allowed us to compare the effects of stable versus transient hierarchical concerns. In the final study (Study 4.14), we explored whether ideological beliefs about social inequality (social dominance orientation, SDO) would have similar effects to the ones obtained when participants' verticality was measured, as this would provide suggestive evidence that negative reactions to deviants are driven by hierarchical concerns.

In Chapter 5 we examined whether hierarchical concerns have downstream consequences on perceivers' attention to others' emotions. We expected that attention to others' emotions depends on the perceived legitimacy of the hierarchical relationship and the social signal conveyed by the emotion. Others' anger signals attack—information relevant to high-ranking individuals who face the threat of losing an illegitimate position. On the contrary, others' fear signals vulnerability—information relevant to low-ranking individuals who try to gain control within an illegitimate hierarchy. We therefore predicted that high-ranking individuals with high hierarchical concerns would be more attentive to anger expressions, whereas low-ranking individuals with high hierarchical concerns would be more attentive to fear expressions. We tested this prediction in three studies (total $N = 383$) where hierarchical concerns were manipulated either as an illegitimate power role assignment or as a mismatch between one's power role and trait power. In Study 5.1 we examined whether individuals with an illegitimate high-power role would be faster in detecting the appearance of anger expressions than individuals with a legitimate high-power role. In Study 5.2 we investigated whether low trait power individuals with a high-power role would be slower in judging the disappearance of anger expressions than high trait power individuals with a high-power role. In Study 5.3 we tested whether individuals with an illegitimate high-power role would be more accurate in recognizing anger expressions, whereas individuals with an illegitimate low-power role would be more accurate in recognizing fear expressions.

Finally, in Chapter 6 we summarize the main findings from the empirical chapters, and discuss the theoretical and practical implications of these findings. Furthermore, we highlight a number of outstanding issues that may be addressed in future research.

The empirical chapters (Chapters 2, 3, 4, and 5) are each based on stand-alone research articles, and can therefore be read independently. As a consequence, there is a degree of theoretical overlap between these chapters. The research articles are the result of collaboration with my advisors and other colleagues, which is reflected in the use of the plural "we" in these chapters.

CHAPTER 2

Cultural Collectivism and Tightness Moderate Responses to Norm Violators

This chapter is based on Stamkou, E., Van Kleef, G. A., Homan, A. C., Gelfand, M. J., Van de Vijver, A. J. R., Boer, D., van Egmond, M. C., Phiri, N., Ayub, N., Kinias, Z., Cantarero, K., Treister, D. E., Figueiredo, A., Hashimoto, H., Hofmann, E. B., Lima, R. P., & Lee, I-C. (2017). *Cultural collectivism and tightness moderate responses to norm violators: Effects on power perception, moral outrage, and leader support*. Manuscript in preparation.

Social norms – implicit or explicit rules that constrain behavior without the force of laws – are important guiding principles in organizations and societies at large (Cialdini & Trost, 1998; Van Kleef, Wanders, Stamkou, & Homan, 2015). Yet even though following social norms is highly adaptive, norm violations are omnipresent. How do observers respond to norm violators? On the one hand, norm violators appear powerful in the eyes of observers because of their expressed autonomy and free will (Van Kleef, Finkenauer, Homan, Gündemir, & Stamkou, 2011), which could have favorable downstream consequences for their power positions (Anderson & Kilduff, 2009). On the other hand, norm violations may evoke moral outrage in observers, which could have unfavorable downstream consequences for norm violators' power positions (Ohbuchi et al., 2004). We addressed this paradox by considering the cultural context within which the norm violation occurs, focusing on the dimensions of individualism-collectivism and tightness-looseness. We develop hypotheses about the ways in which collectivism and tightness shape cognitive, affective, and behavioral responses to norm violators, which we tested in a large-scale cross-cultural study involving 19 countries from five continents.

Reactions to Norm Violations

Norm violations can bring about positive outcomes for the transgressor. According to evolutionary theorizing on costly signaling (Zahavi & Zahavi, 1997), behaviors that are potentially risky or costly signal an underlying quality. Norm violations signal that the actor experiences the leeway to act according to their own volition in spite of situational constraints and potential repercussions (Stamkou & Van Kleef, 2014). Indeed, as costly signals, norm violations fuel perceptions of power in observers. Studies conducted in the Netherlands showed that individuals who violated prevailing norms were perceived as more powerful than individuals who complied with the norms (Van Kleef et al., 2011). Studies conducted in Italy and the United States similarly showed that individuals who entered a boutique wearing gym clothes rather than appropriate attire or who attended a black tie event wearing a red tie were ascribed higher status (Bellezza, Gino, & Keinan, 2014). Moreover, research in marketing and psychology showed that norm violators whose behavior benefited others were more likely to be given a leadership role (Popa, Phillips, & Robertson, 2014; Van Kleef, Homan, Finkenauer, Gündemir, & Heerdink, 2012).

However, psychological research has also found that norm violations evoke moral outrage, which is evident in feelings of anger and blame in observers (Helweg-Larsen & LoMonaco, 2008; Kam & Bond, 2009; Ohbuchi et al., 2004). Similarly, ethological research in non-human primates has demonstrated that animals punish conspecifics who violate established rules, for instance through physical attacks and denial of access to important resources (Boyd & Richerson, 1992). Conversely, individuals who follow group norms are endorsed by the group because they are considered more committed to the group's ideals (Anderson & Kilduff, 2009; Feldman, 1984). Furthermore, organizational field studies revealed that leaders whose behavior was inconsistent with espoused values were more likely to lose their status (Yukl, 2010).

These two perspectives inform inconsistent predictions regarding the relative potential of norm violators to be supported in leadership roles. The first perspective suggests that norm violators are more likely to be supported as leaders because they come across as powerful, whereas the second perspective suggests that norm violators are less likely to be supported as leaders because they elicit moral outrage. To address this puzzle, we investigated how culture moderates observers' responses to norm violators in terms of power

perceptions (cognitive response), moral outrage (affective response), and leader support (behavioral tendency).

The Cultural Context of Norm Violations

Norms do not exist in isolation from the social world – they are defined by, and embedded in, a social context that involves the shared expectations of others. Therefore, responses to norm violations may depend on a society's perceived cultural norms, which influence how people are expected to behave in a given context (Goode, 2002). Research in pragmatics, for instance, has established that the evaluation of individuals who defy linguistic conventions (e.g., politeness principles) largely depends on the cultural context (Spencer-Oatey & Jiang, 2003). We propose that reactions to norm violations vary across cultures as a function of the importance that is attached to group obligations (i.e., cultural collectivism) and social order (i.e., cultural tightness). Importantly, we conceptualize these cultural dimensions as values and beliefs that are perceived to be widespread in one's culture rather than as people's personal values and beliefs (see Chiu, Gelfand, Yamagishi, Shteynberg, & Wan, 2010, and Zou, Tam, Morris, Lee, Lau, & Chiu, 2009 for a comprehensive account of intersubjective culture).

A first cultural dimension that is relevant in relation to norm-violating behavior is individualism-collectivism. In collectivistic cultures, individuals' identity is thought of as being embedded in the larger social context. The cultural ideal is to meet the duties and obligations of one's social role in order to maintain group harmony (Miller, Bersoff, & Harwood, 1990). In individualistic societies, on the other hand, the cultural ideal is to express one's uniqueness and to be a free agent that acts according to one's own volition (Markus & Kitayama, 1991). Accordingly, research showed that collectivist cultures value adherence to obligations, compromise, and maintenance of harmony, while individualistic cultures value self-actualization, privacy, and freedom (Gelfand, Nishii, Holcombe, Dyer, Ohbuchi, & Fukumo, 2001; Triandis, McCusker, & Hui, 1990). Given that norms give expression to the group's central values and increase the predictability of group members' behavior (Kiesler & Kiesler, 1970), violating norms could jeopardize group harmony. Norm violators thus defy their duties and obligations as group members, and this may reduce their status in collectivistic societies. On the contrary, the freewheeling behavior of norm violators adheres to the individualistic cultural ideal of autonomy and as such may enhance their status in individualistic societies. Indeed, empirical evidence shows a broader range of acceptable social behavior and non-normative characteristics in individualistic than collectivistic cultural contexts (Kinias, Kim, Hafenbrack, & Lee, 2014). Similarly, normative beliefs were more important for people's judgments and behavior in collectivistic than individualistic societies (Bontempo & Rivero, 1992; Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999; Enker, 1987; Suh, Diener, Oishi, & Triandis, 1998).

A second cultural dimension that is pertinent to norm violation is tightness-looseness. The defining characteristic of this dimension is the importance that is assigned to maintaining social order. Tightness is associated with stronger norms and lower tolerance of deviant behavior, which restricts the range of behavior that is deemed appropriate across situations. By contrast, looseness is associated with weaker norms and a higher tolerance of deviant behavior, affording a wider range of permissible behavior across everyday situations (Pelto, 1968; Triandis, 1989). Compared to individuals in loose cultures, individuals in tight cultures are more concerned with conforming to normative rules and have psychological qualities that promote social order, such as higher need for structure and self-monitoring

ability (Gelfand et al., 2011). Since norm violations, by definition, break with a pre-existing structure, norm violations may be considered a threat to the social order and successful coordination in tight cultures (Roos, Gelfand, Nau, & Lun, 2015). This may explain why women, who are non-normative examples of leaders (Carli & Eagly, 1999), are less likely to emerge in leadership positions in tight rather than loose cultures (Toh & Leonardelli, 2012). In a complementary vein, recent research showed that loose societies provide fertile ground for the emergence of leaders who boost their status by challenging the status quo (Aktas, Gelfand, & Hanges, 2016; Mittal, 2015).

It is worth noting that collectivism and tightness are related but distinct constructs, both theoretically and empirically (Carpenter, 2000; Gelfand, Nishii, & Raver, 2006). Collectivism is concerned with the emphasis placed by societies on duties and obligations versus being independently oriented – it does not refer to the importance of social order and coordination, which is the core element of tightness. Furthermore, the two cultural syndromes have some unique precursors, such as common fate and need for mutual effort for collectivism, and high societal threat and isolation from external influences for tightness (Triandis, 1989). It is thus possible that a nation is collectivistic and loose or individualistic and tight, although collectivism and tightness covary moderately (Gelfand et al., 2011).

The Current Research: Model and Hypotheses

We investigated how the cultural dimensions of collectivism and tightness influence responses to norm violators. Based on the theorizing above, we propose a moderated dual-pathway model. Our model posits that, compared to norm-following behavior, norm-violating behavior may increase observers' relative tendency to support violators as leaders by inspiring perceptions of power (positive pathway) and may decrease leader support tendencies by evoking moral outrage (negative pathway). The relative predictive strength of these paths depends on the country's collectivism and tightness. We hypothesize that perceptions of power in response to norm violations are relatively less pronounced in more collectivistic and tighter countries, whereas negative reactions of moral outrage are relatively more pronounced in more collectivistic and tighter countries. In sum, we hypothesized that the strength of the association between norm violation and leader support via power perception or moral outrage depends on the level of collectivism or tightness in a given society (i.e., conditional indirect effect; see Figure 2.1).

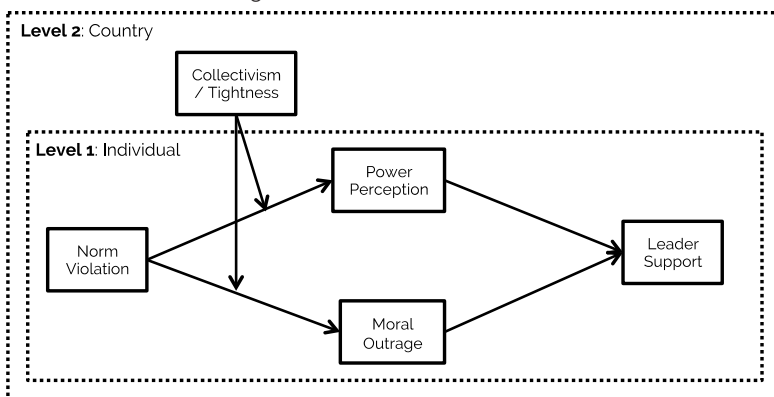


Figure 2.1. Multilevel theoretical model illustrating the hypotheses for the positive pathway of norm violation on leader support via power perception and the negative pathway of norm violation on leader support via moral outrage as moderated by collectivism and/or tightness.

Method

Countries and Participants

Based on previous research (Gelfand et al., 2011; House, Hanges, Javidan, Dorfman, & Gupta, 2004), we selected 19 countries that span a broad range of collectivism and tightness. As expected, there was a positive correlation between collectivism and tightness, $r(19)=.48, p=.040$, but the systematic sampling of cultures enabled the inclusion of collectivistic countries that are loose and individualistic countries that are tight (see Figure 2.2).

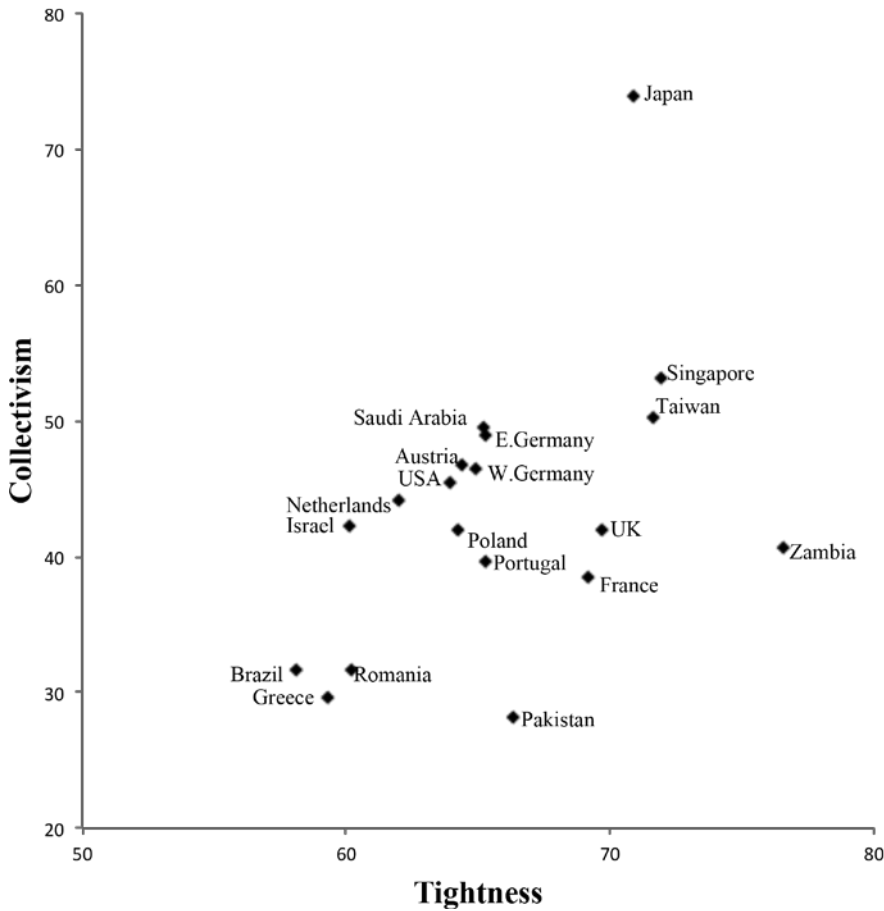


Figure 2.2. Countries along the collectivism and tightness dimensions. Values represent scores on 100-point scales. Higher values mean stronger endorsement.

To examine the validity of the scales, we tested the correlation between the collectivism and tightness scores aggregated to the country level with country scores derived from previous studies measuring equivalent constructs. Collectivism scores positively correlated with the GLOBE project's (House et al., 2004) society-level institutional collectivism scores, $r(16)=.70, p=.002$ (scores were missing for Pakistan, Romania, and Saudi Arabia).¹

¹ The relatively low collectivism score of Pakistan relates to the fact that the sample was derived from a university where students have higher SES compared to the country average, which means that this specific

Tightness scores correlated with Gelfand et al.'s (2011) tightness scores, $r(16) = .67, p = .004$ (scores were missing for Romania, Saudi Arabia, and Zambia). These results attest to the convergent validity of the collectivism and tightness scores used in the current research.

Given the current country sample ($n_i = 19$) and the need to estimate conditional indirect effects with a multilevel structure, we aimed at an individual sample of approximately $N = 100$ per country to produce reliable estimates (see Bauer, Preacher, & Gil, 2006). Our final sample comprised 2369 individuals, nested in 19 countries, who participated in the study in exchange for course credits or money. The proportion of missing values was 0.17% and we treated them as random. No participants were excluded from our sample.

Key sample characteristics (i.e., sample size, demographics, collectivism and tightness scores on 100-point scales) are displayed in Table 2.1. Additional information on the sample selection is provided in the Supplementary Material Chapter 2. Results are reported separately for East and West Germany to be consistent with previous cross-cultural studies (e.g., Gelfand et al., 2011; House et al., 2004).

Procedure and Design

The original questionnaire was translated into each country's official language following the procedure outlined by Brislin (1986; see Supplementary Material Chapter 2). The questionnaire was introduced as a survey on general thoughts, attitudes, and feelings. After replying to demographic questions, participants read a vignette of an organizational meeting in which the focal actor named K either violated or adhered to punctuality, discretion, and talk-in-turns norms. More specifically, in the norm violation vignette, K arrived late to the meeting, caused some commotion while getting a cup of coffee midway through the meeting, and interrupted his colleague to express his opinion regarding how the company should deal with an organizational issue ("rules are there to be broken"). In the norm adherence vignette, K arrived well on time, waited until the end of the meeting to get his coffee since he considered it inappropriate to do so midway, and expressed his opinion regarding the policy the company should follow ("rules are there for a reason") only after his colleague had rounded off (see Appendix 2.A for the full vignettes).

After reading one of the two vignettes, participants answered questions measuring their perception of K's power, their feelings of moral outrage, their tendency to support K as leader, and their perception of K's behavior as norm violating, which we included as manipulation check. After some filler questions, participants answered questions measuring cultural collectivism and tightness. At the end of the survey we also measured power distance for exploratory purposes. (The psychometric qualities of this scale turned out to be poor, and it was therefore not analyzed.)

The questionnaire was administered online in all countries with the exception of Japan, Pakistan, Saudi Arabia, and Taiwan, where we used a pen-and-paper version of the questionnaire, and Singapore and Zambia, where we used both administration modes. In the online studies, participants were recruited via the online system of each collaborator's university (e.g., www.test.uva.nl in the Netherlands) or via Amazon's Mechanical Turk (www.mturk.com) in the USA. In the pen-and-paper studies, participants were recruited at the university lecture halls.

sample was likely socialized with more individualistic values and had a more individualistic view of their society (Vohs, Mead, & Goode, 2006). Indeed, recent studies show that the different sub-cultures of Pakistan vary greatly in collectivism depending on their relative SES (Riaz, Jamal, & Jan, 2016).

Table 2.1

Sample Characteristics per Country

Country	Site(s)	N	M Age (SD)	M Education (SD)	M SES (SD)	M Religiosity (SD)	% Women	% Norm violation condition	Collectivism score	Tight- ness score
Austria	Vienna	152	24.14 (4.33)	3.31 (0.46)	4.68 (1.03)	2.92 (1.94)	77.6	50.0	46.7	64.4
Brazil	São Paulo	126	25.62 (8.52)	3.26 (0.44)	4.35 (1.04)	4.08 (2.51)	59.5	54.0	31.6	58.1
France	Paris	127	23.06 (2.63)	3.92 (0.27)	4.23 (1.03)	3.31 (2.28)	66.9	49.6	38.5	69.2
Germany (former East)	Dresden, Erfurt, Potsdam	102	24.14 (4.22)	3.25 (0.43)	4.45 (0.99)	3.03 (2.00)	90.2	51.0	48.9	65.3
Germany (former West)	Hannover, Mainz, Würzburg	120	24.48 (5.10)	3.36 (0.48)	4.76 (0.96)	3.14 (1.77)	82.5	50.0	46.4	64.9
Greece	Athens, Thessaloniki	131	22.22 (3.76)	3.37 (0.48)	3.94 (1.03)	3.53 (2.14)	84.0	52.7	29.6	59.3
Israel	Haifa	103	26.99 (5.43)	3.46 (0.50)	4.42 (1.02)	4.01 (2.31)	54.4	51.5	42.3	60.1
Japan	Tokyo	116	19.21 (1.08)	3.67 (0.47)	4.48 (0.97)	3.18 (1.44)	39.7	50.0	73.9	70.9
Netherlands	Amsterdam	130	20.32 (1.86)	3.01 (0.09)	4.97 (0.96)	1.85 (1.53)	75.4	50.8	44.2	62.0
Pakistan	Islamabad	152	21.44 (2.98)	3.81 (0.39)	4.22 (1.24)	6.90 (0.61)	65.1	46.7	28.2	66.3
Poland	Wrocław	138	26.38 (7.38)	3.38 (0.49)	4.08 (1.04)	4.25 (2.18)	89.9	48.6	41.9	64.2
Portugal	Coimbra	120	26.01 (5.35)	3.75 (0.43)	3.97 (0.96)	2.85 (2.01)	70.8	49.2	39.6	65.3
Romania	Cluj-Napoca	98	22.95 (4.22)	3.61 (0.49)	4.23 (0.94)	4.92 (2.06)	81.6	57.1	31.7	60.2
Saudi Arabia	Jeddah	101	21.57 (1.19)	3.58 (0.50)	4.77 (1.21)	6.98 (0.20)	50.5	45.5	49.5	65.2
Singapore	Singapore	123	21.44 (1.61)	3.14 (0.37)	4.64 (0.90)	4.22 (2.08)	57.4	48.0	53.1	71.9
Taiwan	Taipei	155	20.35 (1.92)	3.48 (0.50)	4.49 (0.78)	3.01 (1.58)	55.5	51.6	50.3	71.6
UK	Oxford	148	22.60 (5.70)	3.45 (0.54)	4.69 (1.05)	2.29 (1.88)	71.6	51.4	42.0	69.7
US	East coast West coast	141	25.68 (7.18)	3.38 (0.49)	3.88 (1.21)	3.57 (2.40)	49.6	54.6	45.5	63.9
Zambia	Lusaka	86	24.33 (4.36)	3.33 (0.66)	4.31 (0.92)	6.59 (1.39)	53.5	51.2	40.7	76.6
Total/Means		2369	23.31 (4.15)	3.45 (0.45)	4.40 (1.01)	3.93 (1.80)	67.1	50.7	43.4	65.7

Note. Education was measured with the question "What is the highest education level you have completed?" with 1=no education, 2=primary education, 3=secondary education, and 4=tertiary education. Socioeconomic status (SES) was measured with the questions "What was the neighborhood you grew up in like?" ranging from 1=very poor to 7=very wealthy and "Do you have enough money to buy things you want?" ranging from 1=not at all to 7=very much. Religiosity was measured with the question "How important is God to you?" ranging from 1=not at all to 7=very much. Collectivism and tightness scores were linearly transformed to 100-point scales so they can be compared to scores of similar variables reported in the literature.

Measures

Manipulation check. We measured norm violation perception by means of four items adapted from previous studies (Van Kleef et al., 2011). A sample item is "I think that K behaves improperly".

Power perception. We measured power perception with four items adapted from the Generalized Sense of Power Scale (Anderson, John, & Keltner, 2012). A sample item is "I think K has a great deal of power".

Moral outrage. Following previous research, moral outrage was measured by means of the moral emotions of contempt, anger, and disgust, using the items "K's behavior makes me feel ... contemptuous / angry / disgusted" (CAD triad; Rozin, Lowery, Imada, & Haidt, 1999). These three items were presented among several positive emotions to conceal our focus on negative emotional reactions.

Leader support. To measure leader support, we used a brief scenario followed by seven questions. The scenario described a leadership vacancy that K applied for. The questions were based on the Leader Support scale (Rast III, Gaffney, Hogg, & Crisp, 2012), which includes items such as "I would vote for K."

Cultural collectivism. We used the norms-versus-attitudes component from the Individualism-Collectivism as Descriptive Norms Scale (Fischer et al., 2009) to measure collectivism at the country level. This component consists of five bipolar items. An example item is "Most people in my country... do what is enjoyable to them personally vs. carry out their group obligations".

Cultural tightness. We used the 6-item Tightness-Looseness scale (Gelfand et al., 2011) to measure tightness at the country level. An example item is "In my country there are many social norms that people are supposed to follow".²

Response scales. All items in the questionnaire were rated on 7-point Likert scales, except for tightness, which was rated on a 6-point Likert scale (consistent with previous research). All Likert scales were anchored by *strongly disagree* at the lowest end and *strongly agree* at the highest end.

Analytic Strategy

We used a series of multilevel regression models to assess the effects of actor's behavior, collectivism, and tightness on individuals' reactions toward the actor. Multilevel analysis is indicated when dealing with nested designs and/or examining cross-level interactions between individual-level (i.e., actor's behavior) and country-level (i.e., collectivism and tightness) predictors (Raudenbush & Bryk, 2002). Before carrying out multilevel analyses, we performed a number of preliminary analyses to check the feasibility of multilevel analytical techniques and we computed the intercorrelation of variables to check whether the mediating processes stipulated in our model are independent from each other.

Preliminary Analyses

² In keeping with the intersubjective perspective on culture (Chiu et al., 2010), we conceptualized collectivism and tightness as collective constructs that reside at the culture level. We therefore measured them in line with a referent-shift consensus model (Chan, 1998; Glick, 1985), which requires individuals to evaluate a cultural characteristic at the desired culture-level of analysis (i.e., "*People in this culture do X in situation Y*") to indicate a crystallized collective-level construct (Fischer, 2009). Alternative scales that have been used in previous cross-cultural studies (e.g., Hofstede's individualism or Schwartz's embeddedness scales) were deemed unsuitable for the current research because these scales measure personal preferences or attitudes pertaining to individuals' own behavior (i.e., "*I do X in situation Y*").

The results of the preliminary analyses are displayed in Table 2.2. First, we assessed the internal consistency of each scale within each country by means of Cronbach's alpha reliability analyses. All scales demonstrated acceptable to excellent reliability.

Second, we calculated Tucker's phi congruence coefficient to examine the equivalence of factor structures across countries (van de Vijver & Leung, 1997). Tucker's phi compares two factor structures with each other. For each scale, we calculated the unidimensional factor structure for each country and compared it to the factor structure found across all participants. The mean Tucker's phi far exceeded the recommended .90 cut-off point for all scales, supporting the assumption that the psychological construct underlying each scale is the same across countries.

Third, we calculated the intra-class correlation coefficient ICC(1), which denotes the proportion of variance accounted for by country differences. All ICC(1) values were higher than .05 (apart from the manipulation check), which indicates that culture influenced individuals' responses, warranting multilevel analysis (LeBreton & Senter, 2008).

Finally, we checked whether the within-country agreement was sufficiently high for the collectivism and tightness scales by estimating the $r_{wg(U)}$ index. The $r_{wg(U)}$ values exceeded the recommended .70 cut-off point, which illustrates that there is high within-country agreement and justifies the aggregation of individual scores to the country level (LeBreton & Senter, 2008).

Table 2.2
Scale Psychometric Qualities Across Countries

Scale	<i>M</i> Cronbach α (<i>SD</i>)	<i>M</i> Tucker ϕ (<i>SD</i>)	ICC(1) ^a		<i>M</i> $r_{wg(U)}$ ^b (<i>SD</i>)
			NA	NV	
Manipulation Check					
Norm Violation	.95 (.03)	.99 (.01)	.03	.07	-
Perception					
Outcome Variables					
Moral Outrage	.87 (.05)	.99 (.01)	.10	.07	-
Power Perception	.70 (.11)	.96 (.11)	.47	.09	-
Leader Support	.95 (.02)	.99 (.01)	.06	.13	-
Cultural Moderators					
Collectivism	.85 (.05)	.99 (.01)			.72 (.22)
Tightness	.60 (.08)	.98 (.01)	.10		.86 (.09)

Note. ICC=Intra-class correlation. NA=Norm Adherence. NV=Norm Violation. r_{wg} =Interrater agreement index.
^a For the manipulation check and outcome variables, ICC(1) values are reported separately for the norm violation and norm adherence conditions because of the effect of our manipulation on those scales. ^b $r_{wg(U)}$ indices were not estimated for scales that we did not intend to aggregate to the country level per our theoretical model.

Intercorrelation of Variables

We estimated the relationship among individuals' cognitive (i.e., power perception), affective (i.e., moral outrage), and behavioral responses (i.e., leader support) in order to examine whether power perception and moral outrage independently relate to leader support tendencies. Table 2.3 shows that, in line with our theoretical model, power perception was positively correlated with leader support whereas moral outrage was negatively correlated with leader support. Furthermore, power perception and moral outrage were independent from each other, which justified our decision to empirically treat them as separate mediating processes.

To provide a more comprehensive view of the relations among variables, we also included the cultural variables in the intercorrelation matrix. The positive correlation between collectivism and tightness at the individual level is consistent with their positive correlation at the culture level reported above.

Table 2.3
Intercorrelation Matrix

	1	2	3	4	5
1. Power perception	–	.01	.22 ^{**}	.03	.07 [*]
2. Moral outrage		–	-.57 ^{**}	.02	.06 [*]
3. Leader support			–	.03	-.01
4. Collectivism				–	.19 ^{**}
5. Tightness					–

Note. The sample was $N = 2366$ for power perception and $N = 2369$ for all other variables.
^{*} $p < .01$. ^{**} $p < .001$.

Multilevel Analyses

Multilevel modeling accounts for non-independent observations by estimating variance associated with country differences in average response (intercepts) and country differences in associations (slopes) between predictors and dependent variables (e.g., the relationship between an actor's behavior and individuals' reactions). This is accomplished by declaring intercepts and/or slopes that are expected to vary across countries to be random effects and those that are not expected to vary across countries to be fixed effects. Level-1 units in our analyses were the 2369 participants, and level-2 units were the 19 countries in which these participants resided.

Certain methodological decisions applied in all analyses. Actor's behavior (level-1 predictor) was coded as -1 for the norm adherence condition and 1 for the norm violation condition. Because we expected differences between countries in the associations between actor's behavior and individuals' reactions, the slopes associated with the effects of norm violation on the manipulation check, power perception, moral outrage, and leader support were declared to be random. Collectivism and tightness were used as covariates at level 2 that predicted the random slopes at level 1, which resulted in cross-level interaction effects between individual- and cultural-level variables. Even though we had no hypotheses about the main effects of collectivism and tightness on individuals' reactions, we included them as country-level effects so we could accurately probe and graph the cross-level interaction effects. This required that we declare a random intercept as well, because prediction of a random intercept by a level-2 covariate results in a main effect. Because our main interest was in the cross-level interactions, we applied group-mean centering to our level-1 predictors and grand-mean centering to our level-2 predictors (Enders & Tofighi, 2007). Multilevel modeling was implemented through SPSS MIXED MODELS, Version 22, and we used full maximum likelihood (ML) estimation.

Results

The direction and strength of the results reported below did not change substantially when controlling for demographic variables (age, education, SES, religiosity, and gender). We therefore report the results without controlling for demographics.

Manipulation Check

We checked the manipulation by investigating whether actor's behavior predicted norm violation perceptions as intended. We also explored whether actor's behavior interacted with collectivism and/or tightness to predict norm violation perception. We thus regressed norm violation perception on actor's behavior, collectivism, tightness, the interaction between actor's behavior and collectivism, and the interaction between actor's behavior and tightness. If the manipulation were successful, we should find a main effect of actor's behavior on norm violation perceptions, and no main or interaction effects involving culture.

A main effect of actor's behavior showed that individuals perceived the actor to be more norm violating in the norm violation condition than in the norm adherence condition, $b=2.00$, $t(18.78)=39.65$, $p<.001$, 95% CI [1.89, 2.11]. There was no main effect of collectivism on norm violation perception, $b=0.12$, $t(19.82)=1.59$, $p=.127$, 95% CI [-0.04, 0.28], and no main effect of tightness, $b=-0.13$, $t(20.69)=-0.70$, $p>.250$, 95% CI [-0.53, 0.27]. Most important, actor's behavior did not interact with either collectivism, $b=-0.02$, $t(19.04)=-0.21$, $p>.250$, 95% CI [-0.22, 0.18], or tightness, $b=-0.01$, $t(19.59)=-0.02$, $p>.250$, 95% CI [-0.51, 0.51]. These results indicate that the manipulation was equivalently successful across cultures.

Hypotheses Testing

Our theoretical model (see Figure 2.1) postulated conditional indirect effects involving collectivism and tightness as moderators of the effect of actor's behavior on leader support via power perception (positive pathway) and via moral outrage (negative pathway). Since power perception and moral outrage were theoretically and statistically independent mediating processes, we tested two separate models when we examined effects on these mediators while controlling for the effect of the other mediator. Furthermore, given that the positive correlation between collectivism and tightness renders analyses involving interactions between them unreliable (Zedeck, 1971), we tested the hypotheses by estimating the effects of one cultural moderator while controlling for the effects of the other cultural moderator. To check, however, whether results remain the same when we included the three-way interaction between collectivism, tightness, and actor's behavior, we carried out exploratory analyses that we report in the Supplementary Material Chapter 2.

We tested each hypothesis by examining three consecutive models (Muller, Judd, & Yzerbyt, 2005). A conditional indirect effect occurs if the mediating process (power perception or moral outrage) that produces the treatment effect (actor's behavior) on the outcome (leader support) depends on the value of a moderator variable (collectivism or tightness). Model 1 estimates the effects of actor's behavior and the cultural variables on leader support; Model 2_{pos} and Model 2_{neg} estimate the effects of actor's behavior and the cultural variables on the two mediators, power perception and moral outrage, respectively; and Model 3 estimates the effect of the mediators on leader support while including the effects of actor's behavior and the cultural variables. Interaction effects are probed at $\pm 1SD$ and $\pm 2SDs$ about the mean of cultural variables to capture a wide range of cultural variation and to be consistent with the procedure we follow for probing conditional indirect effects (Bauer et al., 2006).

Collectivism. We first examined collectivism as a moderator of the positive and negative pathways while controlling for the effects of tightness. Parameter estimates for the models testing the conditional indirect effect hypotheses are summarized in Table 2.4. The effect of tightness was not significant in any of the tested models, and we will thus not consider it further.

In Model 1, leader support was regressed on actor's behavior, collectivism, and their interaction. This model showed a main effect of actor's behavior on leader support:

Respondents supported norm violators less than norm abiders. There was no main effect of collectivism and no interaction effect.

In Model 2_{pos}, power perception was regressed on actor's behavior, collectivism, and their interaction. This model showed no main effects of actor's behavior, collectivism, and moral outrage on power perception. As expected, it did show an interaction effect between actor's behavior and collectivism: In more collectivistic countries individuals considered norm violators less powerful than norm abiders [$1SD$: $b = -0.19$ ($SE = 0.09$), $z = -2.10$, $p = .044$; $2SDs$: $b = -0.35$ ($SE = 0.14$), $z = -2.47$, $p = .013$], whereas in less collectivistic countries individuals tended to consider norm violators more powerful than norm abiders [$-1SD$: $b = 0.14$ ($SE = 0.09$), $z = 1.54$, $p = .125$; $-2SDs$: $b = 0.30$ ($SE = 0.14$), $z = 2.13$, $p = .033$] (see Figure 2.3, left panel).

In Model 2_{neg}, moral outrage was regressed on actor's behavior, collectivism, and their interaction. This model showed a main effect of actor's behavior on moral outrage: Individuals experienced more moral outrage in the norm violation condition than in the norm adherence condition. There were no main effects of collectivism and power perception on moral outrage. In line with our expectations, there was an interaction effect between actor's behavior and collectivism: Moral outrage in reaction to norm violators was more intense in more collectivistic countries [$1SD$: $b = 1.14$ ($SE = 0.07$), $z = 15.61$, $p < .001$; $2SDs$: $b = 1.35$ ($SE = 0.12$), $z = 11.54$, $p < .001$], than in less collectivistic countries [$-1SD$: $b = 0.74$ ($SE = 0.07$), $z = 10.10$, $p < .001$; $-2SDs$: $b = 0.53$ ($SE = 0.12$), $z = 4.59$, $p < .001$] (see Figure 2.3, right panel).

Model 3 was an extension of Model 1 with power perception and moral outrage added as predictors. In addition to the results of Model 1, Model 3 showed that power perception and moral outrage independently predicted leader support: The more powerful individuals perceived the protagonist to be and the less moral outrage they experienced, the more they would support the person as leader.

In line with our conditional indirect effect hypothesis, these results indicate that the indirect effects of actor's behavior on leader support via power perception and via moral outrage (i.e., the two mediation relationships) depend on collectivism (i.e., the moderator). To further probe the conditional indirect effects, we computed each mediation relationship at different levels of the moderator following the procedure recommended by Bauer and colleagues (2006). We first centered the moderator (i.e., collectivism) at five equidistant levels ranging from very low to very high: 2 SDs below the mean, 1 SD below the mean, the mean, 1 SD above the mean, and 2 SDs above the mean. We then estimated each mediation relationship at the various levels of the moderator and decomposed the total effect of actor's behavior on leader support into an indirect and a direct effect. The indirect effect represents the variance in leader support explained by actor's behavior through the mediator (e.g., power perception or moral outrage), whereas the direct effect represents the residual variance in leader support explained by actor's behavior after partialing out the effect of the mediator. The total effect consequently represents the sum of the indirect and direct effects. A conditional indirect effect is indicated when the direction and/or magnitude of the indirect effect varies across levels of the moderator.

With regards to the positive pathway, the above analysis showed that the indirect effect of actor's behavior on leader support through power perception was positive and significant for very low values of collectivism and it was negative and significant for high and very high values of collectivism (see left side of Table 2.5 and upper panel of Figure 2.4). That is, individuals in very individualistic countries perceived a norm violator as more powerful than a norm follower, which in turn suppressed their tendency to reject violators as leaders. In

Table 2.4

Parameter Estimates for Multilevel Models Testing the Hypotheses that the Positive and Negative Pathways are Moderated by Collectivism while Controlling for Tightness

	Model 1 (Outcome: Leader Support)		Positive Pathway		Negative Pathway		Model 3 (Outcome: Leader Support)	
			Model 2 _{pos} (Outcome: Power Perception) ^a		Model 2 _{neg} (Outcome: Moral Outrage) ^b			
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>
Fixed Parameters								
Intercept	3.32 [3.20, 3.45]	<.001	3.86 [3.76, 3.96]	<.001	2.67 [2.52, 2.82]	<.001	3.32 [3.20, 3.45]	<.001
Control Moderator (Tightness)	0.50 [-0.10, 1.11]	.100	0.32 [-0.15, 0.79]	.475	0.48 [-0.25, 1.20]	.184	0.50 [-0.11, 1.10]	.101
Actor's Behavior	-1.05 [-1.18, -0.91]	<.001	-0.03 [-0.16, 0.11]	>.250	0.94 [0.83, 1.05]	<.001	-0.72 [-0.84, -0.60]	<.001
Collectivism	-0.18 [-0.42, 0.05]	.123	-0.01 [-0.20, 0.17]	>.250	0.24 [-0.04, 0.53]	.088	-0.18 [-0.42, 0.06]	.127
Actor's Behavior x Collectivism	-0.16 [-0.39, 0.06]	.147	-0.27 [-0.48, -0.05]	.019	0.33 [0.15, 0.51]	<.001	0.22 [-0.17, 0.21]	>.250
Power Perception					0.01 [-0.03, 0.06]	>.250	0.30 [0.26, 0.34]	<.001
Moral Outrage			0.01 [-0.02, 0.05]				-0.34 [-0.37, -0.30]	<.001
Random Parameters								
$\sigma^2_{\text{residual}}$	1.49 [1.41, 1.58]	<.001	1.28 [1.21, 1.36]	<.001	1.71 [1.61, 1.81]	<.001	1.18 [1.12, 1.25]	<.001
$\sigma^2_{\text{intercept}}$	0.06 [0.03, 0.12]	.011	0.03 [0.01, 0.07]	.019	0.08 [0.04, 0.18]	.008	0.06 [0.03, 0.12]	.008
$\sigma^2_{\text{slope}}^b$	0.07 [0.03, 0.15]	.011	0.06 [0.03, 0.13]	.009	0.04 [0.01, 0.09]	.029	0.05 [0.02, 0.10]	.015
Model Fit								
-2 log likelihood	7734.03	-					7180.59	-
χ^2 difference test							553.44	<.001

Note. 95% confidence intervals are reported within brackets. Parameters in bold highlight the effects that need to be significant in order for a conditional indirect effect hypothesis to be supported. Actor's behavior was coded as -1 for the norm adherence condition and 1 for the norm violation condition.
^a In Model 2_{pos}, we controlled for the negative pathway mediator, moral outrage. ^b In Model 2_{neg}, we controlled for the positive pathway mediator, power perception. ^c In Model 1 and Model 3 this parameter refers to the slope associated with the effect of actor's behavior on leader support, in Model 2_{pos} to the slope associated with the effect of actor's behavior on power perception, and in Model 2_{neg} to the slope associated with the effect of actor's behavior on moral outrage.

Table 2.5
Parameter Estimates of the Indirect and Direct Effect of Actor's Behavior on Leader Support via Power Perception and Moral Outrage for Different Levels of Collectivism

Collectivism Level	Power Perception			Moral Outrage		
	Indirect Effect		Direct Effect	Indirect Effect		Direct Effect
	<i>b</i>	<i>p</i>		<i>b</i>	<i>p</i>	
Very Low (-2 SDs)	0.09 [0.01, 0.18]	.039	-0.93 [-1.23, -0.64]	-0.18 [-0.26, -0.10]	<.001	-0.66 [-0.92, -0.40]
Low (-1 SD)	0.04 [-0.01, 0.10]	.114	-0.98 [-1.16, -0.79]	-0.25 [-0.30, -0.19]	<.001	-0.69 [-0.86, -0.53]
Medium (Mean)	-0.01 [-0.04, 0.03]	.789	-1.02 [-0.26, -0.10]	-0.33 [-0.38, -0.29]	<.001	-0.73 [-0.84, -0.61]
High (1 SD)	-0.06 [-1.30, -0.93]	.054	-1.06 [-1.25, -0.88]	-0.38 [-0.45, -0.32]	<.001	-0.76 [-0.93, -0.60]
Very High (2 SDs)	-0.10 [-0.20, -0.01]	<.001	-1.10 [-1.40, -0.81]	-0.45 [-0.54, -0.36]	<.001	-0.80 [-1.06, -0.54]

Note: 95% confidence intervals are reported within brackets.

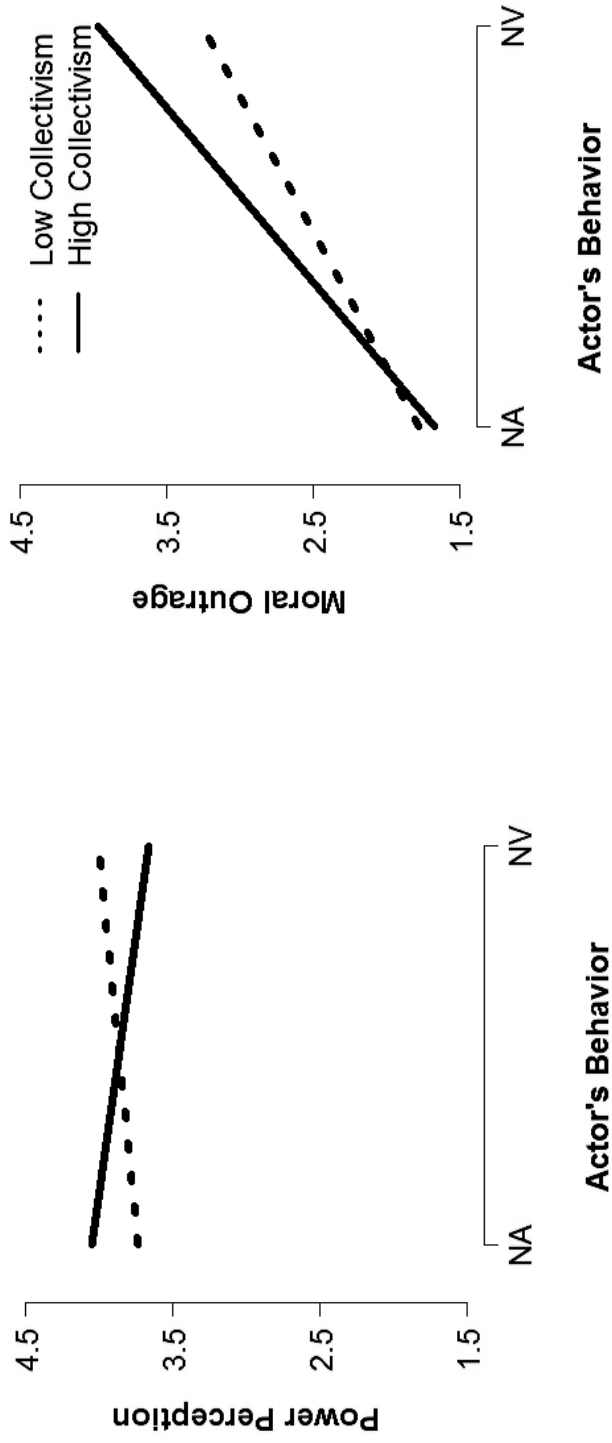


Figure 2.3. Power perception (left panel) and moral outrage (right panel) as a function of actor's behavior and collectivism. NA and NV on the horizontal axis stand for norm adherence and norm violation conditions, respectively. Low and high values of collectivism represent 1 SD below and above the scale mean, respectively.

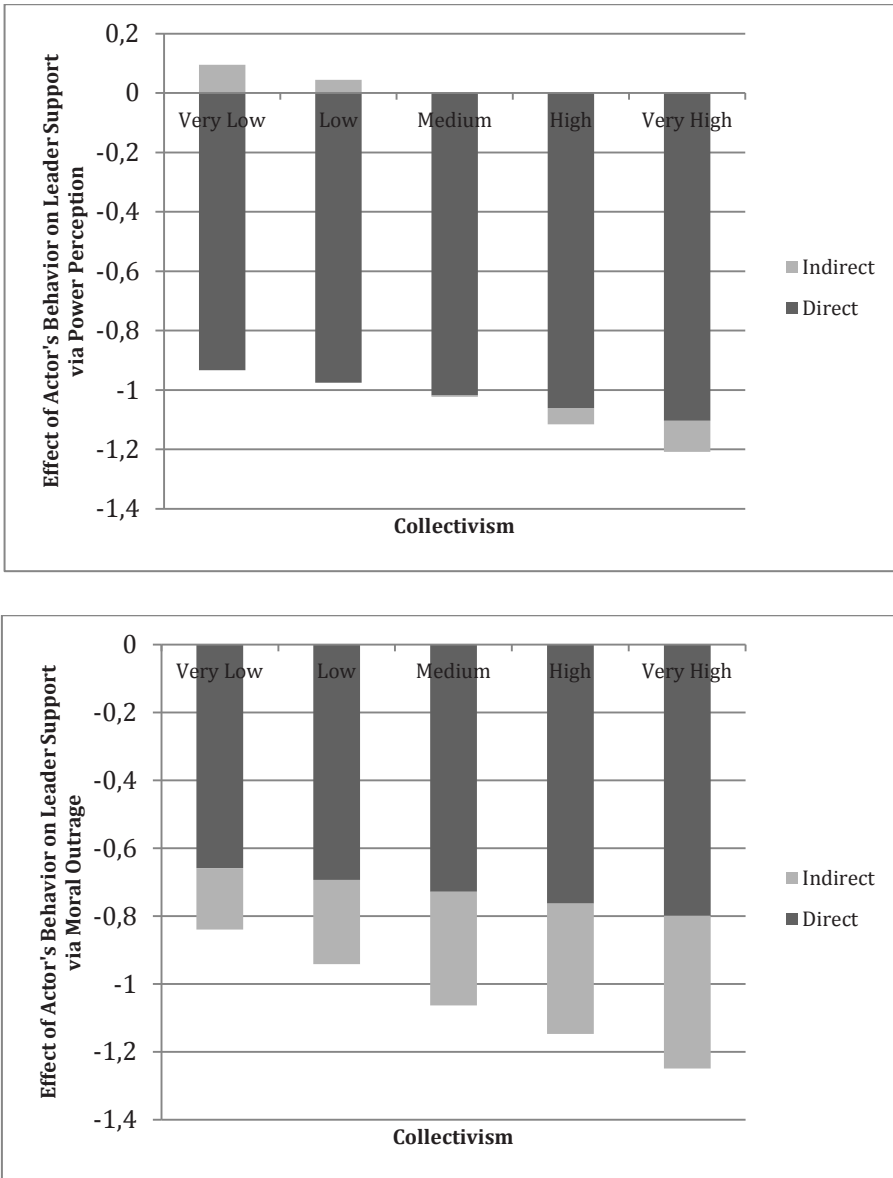


Figure 2.4. Bars indicate the decomposition of the average causal effect of actor's behavior on leader support into a direct effect and an indirect effect through power perception (upper panel) and moral outrage (lower panel) for different levels of collectivism. The total height of each column conveys the magnitude of the total effect.

rather collectivistic countries, on the other hand, individuals perceived a norm violator as less powerful, which in turn reinforced their tendency to reject norm violators as leaders. With regards to the negative pathway, the analysis revealed that the negative indirect effect of actor's behavior on leader support via moral outrage became stronger with increased collectivism (see right side of Table 2.5 and lower panel of Figure 2.4). Namely, the mediating role of individuals' moral outrage on their tendency to reject norm violators as leaders was stronger in more collectivistic countries.

Tightness. We then examined tightness as a moderator of the positive and negative pathways while controlling for the effects of collectivism. Parameter estimates for the models reported below are summarized in Table 2.6.

Model 1 showed a main effect of actor's behavior on leader support, which was qualified by an interaction with tightness. Probing the interaction revealed that, even though individuals across countries would support norm abiders as leaders more than norm violators, this effect was stronger in tighter countries [$1SD: b = -1.20$ ($SE = 0.09$), $z = -13.86$, $p < .001$; $2SDs: b = -1.36$ ($SE = 0.14$), $z = -9.79$, $p < .001$] than in less tight countries [$-1SD: b = -0.89$ ($SE = 0.09$), $z = -10.24$, $p < .001$; $-2SDs: b = -0.73$ ($SE = 0.14$), $z = -5.26$, $p < .001$] (see Figure S2.1).

Model 2_{pos} showed no main or interaction effects on power perception (see Figure 2.5, left panel).

Model 2_{neg} showed a main effect of actor's behavior on moral outrage, which was qualified by a marginal interaction effect with tightness. Probing the interaction revealed that, even though individuals across countries experienced more moral outrage towards the norm violator as compared to the norm abider, this effect tended to be stronger in tighter countries [$1SD: b = 1.06$ ($SE = 0.09$), $z = 11.63$, $p < .001$; $2SDs: b = 1.18$ ($SE = 0.15$), $z = 8.09$, $p < .001$] than in less tight countries [$-1SD: b = 0.82$ ($SE = 0.09$), $z = 9.03$, $p < .001$; $-2SDs: b = 0.70$ ($SE = 0.15$), $z = 4.82$, $p < .001$] (see Figure 2.5, right panel).

Model 3, that was an extension of Model 1, showed that power perception positively predicted leader support and moral outrage negatively predicted leader support. These two effects were independent from each other.

Together, these results provide significant evidence for a simple moderation effect between tightness and norm violation on leader support, no evidence for a conditional indirect effect involving power perception as a mediator, and marginally significant evidence for a conditional indirect effect involving moral outrage.

Even though the conditional indirect effect hypothesis including power perception was not supported, we still probed the effect to provide a complete picture of the findings. These analyses showed that, in line with the non-significant conditional indirect effect, even though the direct effect of actor's behavior on leader support becomes more negative as tightness increases (i.e., moderation effect), the indirect effect via power perception remains non-significant (see left side of Table 2.7 and upper panel of Figure 2.6). In other words, the tighter a country is, the more individuals support norm followers as leaders over norm violators, but this interaction is not mediated by power perception. With regards to the negative pathway, probing the conditional indirect effect (Bauer et al., 2006) showed that as tightness increased, both the direct effect of actor's behavior on leader support and the indirect effect via moral outrage became more negative (see right side of Table 2.7 and lower panel of Figure 2.6). That is, the tighter a country was, the more individuals supported norm followers over norm violators. Also, the mediating role of individuals' moral outrage on their tendency to reject norm violators was marginally stronger in tighter countries.

Table 2.6

Parameter Estimates for Multilevel Models Testing the Hypotheses that the Positive and Negative Pathways are Moderated by Tightness while Controlling for Collectivism

	Model 1 (Outcome: Leader Support)		Positive Pathway Model 2 _{pos} (Outcome: Power Perception) ^a		Negative Pathway Model 2 _{neg} (Outcome: Moral Outrage) ^b		Model 3 (Outcome: Leader Support)	
	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>	<i>b</i>	<i>p</i>
Fixed Parameters								
Intercept	3.32 [3.20, 3.45]	<.001	3.86 [3.76, 3.96]	<.001	2.67 [2.52, 2.82]	<.001	3.32 [3.20, 3.45]	<.001
Control Moderator (Collectivism)	-0.18 [-0.42, 0.05]	.123	-0.01 [-0.20, 0.17]	>.250	0.24 [-0.04, 0.53]	.088	-0.18 [-0.42, 0.06]	.127
Actor's Behavior	-1.05 [-1.17, -0.92]	<.001	-0.02 [-0.18, 0.13]	>.250	0.94 [0.81, 1.07]	<.001	-0.72 [-0.83, -0.62]	<.001
Tightness	0.50 [-0.10, 1.11]	.100	0.32 [-0.15, 0.79]	.174	0.48 [-0.25, 1.20]	.184	0.50 [-0.11, 1.10]	.101
Actor's Behavior x Tightness	-0.65 [-1.18, -0.11]	.021	-0.05 [-0.69, 0.58]	>.250	0.49 [-0.07, 1.05]	.084	-0.46 [-0.89, -0.03]	.039
Power Perception					0.01 [-0.04, 0.06]	>.250	0.30 [0.26, 0.34]	<.001
Moral Outrage			0.01 [-0.03, 0.04]	>.250			-0.34 [-0.37, -0.30]	<.001
Random Parameters								
σ_{residual}	1.49 [1.41, 1.58]	<.001	1.28 [1.21, 1.36]	<.001	1.71 [1.61, 1.81]	<.001	1.18 [1.12, 1.25]	<.001
$\sigma_{\text{intercept}}$	0.06 [0.03, 0.12]	.011	0.03 [0.01, 0.07]	.019	0.08 [0.04, 0.18]	.008	0.06 [0.03, 0.12]	.008
σ_{slope}^c	0.06 [0.03, 0.12]	.012	0.09 [0.04, 0.18]	.006	0.06 [0.03, 0.14]	.012	0.04 [0.02, 0.08]	.019
Model Fit								
-2 log likelihood	7730.62	–					7176.19	–
χ^2 difference test							554.43	<.001

Note. 95% confidence intervals are reported within brackets. Parameters in bold highlight the effects that need to be significant in order for a conditional indirect effect hypothesis to be supported. Actor's behavior was coded as -1 for the norm adherence condition and 1 for the norm violation condition.
^a In Model 2_{pos} we controlled for the negative pathway mediator, moral outrage. ^b In Model 2_{neg} we controlled for the positive pathway mediator, power perception. ^c In Model 1 and Model 3 this parameter refers to the slope associated with the effect of actor's behavior on leader support, in Model 2_{pos} to the slope associated with the effect of actor's behavior on power perception, and in Model 2_{neg} to the slope associated with the effect of actor's behavior on moral outrage.

Table 2.7

Parameter Estimates of the Indirect and Direct Effect of Actor's Behavior on Leader Support via Power Perception and Moral Outrage for Different Levels of Tightness

Tightness Level	Power Perception			Moral Outrage		
	Indirect Effect		Direct Effect	Indirect Effect		Direct Effect
	<i>b</i>	<i>p</i>		<i>b</i>	<i>p</i>	
Very Low (-2 SDs)	0.00 [-0.10, 0.10]	> .250	-0.75 [-1.02, -0.49]	-0.24 [-0.33, -0.14]	< .001	-0.50 [-0.73, -0.26]
Low (-1 SD)	0.00 [-0.06, 0.06]	> .250	-0.89 [-1.05, -0.72]	-0.28 [-0.34, -0.21]	< .001	-0.61 [-0.76, -0.47]
Medium (Mean)	-0.01 [-0.05, 0.04]	> .250	-1.02 [-1.13, -0.90]	-0.32 [-0.37, -0.26]	< .001	-0.73 [-0.83, -0.62]
High (1 SD)	-0.01 [-0.07, 0.05]	> .250	-1.15 [-1.32, -0.98]	-0.36 [-0.43, -0.29]	< .001	-0.84 [-0.99, -0.70]
Very High (2 SDs)	-0.01 [-0.11, 0.09]	> .250	-1.28 [-1.55, -1.02]	-0.40 [-0.50, -0.29]	< .001	-0.96 [-1.19, -0.73]

Note: 95% confidence intervals are reported within brackets.

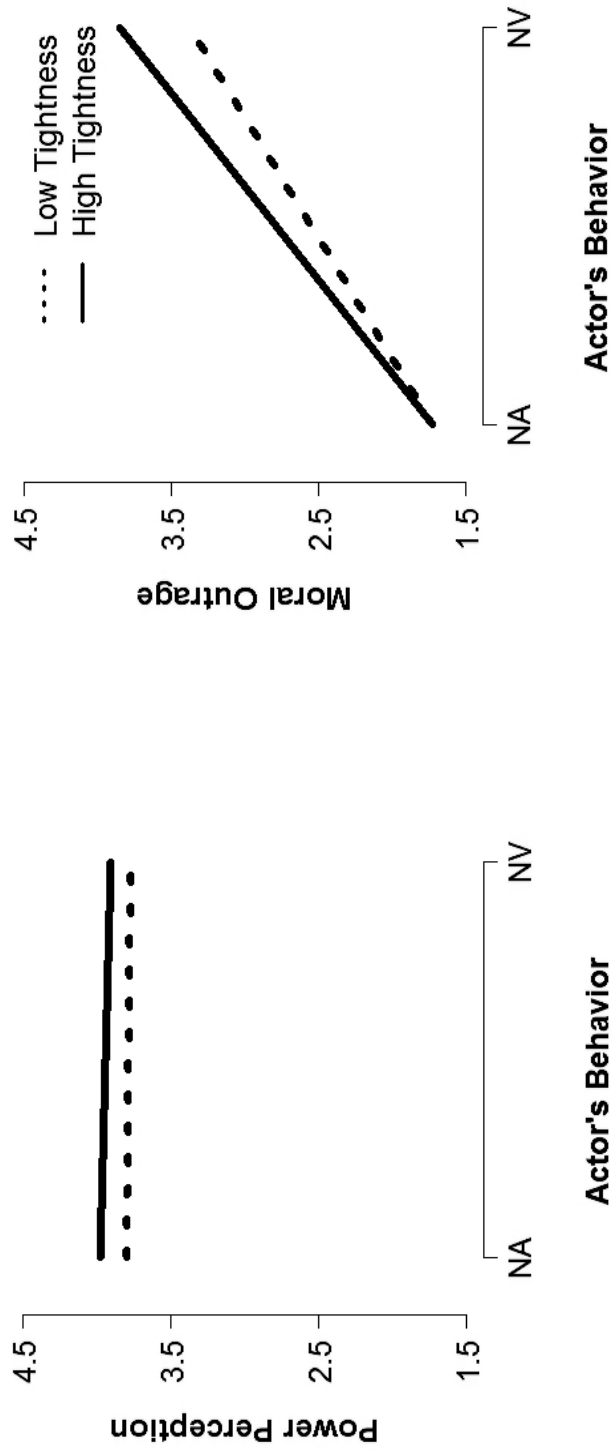


Figure 2.5. Power perception (left panel) and moral outrage (right panel) as a function of actor's behavior and tightness. NA and NV on the horizontal axis stand for norm adherence and norm violation conditions, respectively. Low and high values of tightness represent 1 *SD* below and above the scale mean, respectively.

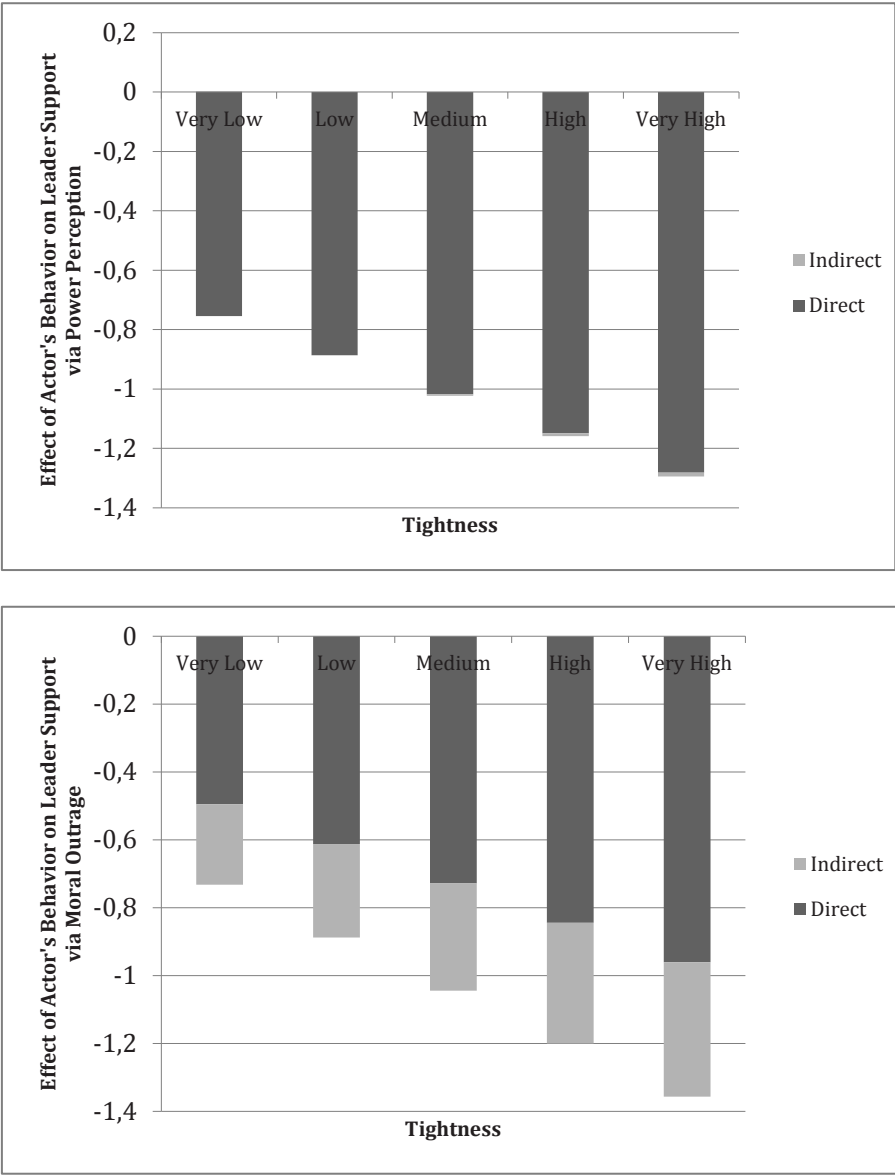


Figure 2.6. Bars indicate the decomposition of the average causal effect of actor's behavior on leader support into a direct effect and an indirect effect through power perception (upper panel) and moral outrage (lower panel) for different levels of tightness. The total height of each column conveys the magnitude of the total effect.

Discussion

Norm violations are ubiquitous, but people's reactions to them are complex and poorly understood. The current study aimed to explain variation in people's reactions to norm violators by investigating the role of cultural values. We developed a theoretical model positing that norm violations induce both positive cognitive reactions (power perceptions) and negative affective reactions (moral outrage), which subsequently influence people's behavioral tendencies to support the violator as a leader. We further proposed that these processes are modulated by culture, specifically by collectivism and tightness.

The results showed that norm violators provoke moral outrage in all cultures studied, but the extent to which individuals experience these negative moral emotions depends on their country's culture: The more collectivistic and tight the culture is, the more moral outrage individuals experience in reaction to norm violations.

These feelings in turn relate to people's reluctance to support violators as leaders. The reduced support for norm violators is stronger in more collectivistic countries where people consider norm violators less powerful than norm followers and, importantly, weaker in rather individualistic countries where people consider norm violators more powerful. Finally, the tendency to support norm followers as leaders is directly related to cultural tightness: The tighter the culture is, the more individuals would support norm followers as leaders.

For the interaction between norm violations and collectivism, both moral outrage and power perceptions proved to be explaining mechanisms for people's rejection of norm violators, whereas the role of tightness could not be explained by power perceptions and only marginally by moral outrage. This implies that people's behavior in tight cultures may be driven by other processes, such as perceived threat to social order, because the need for coordination in tight cultures renders people sensitive to behavior that challenges the status quo (Roos et al., 2015). The fact that collectivism and tightness likely influence people's reactions through different processes underlines that they are distinct aspects of culture (Gelfand et al., 2011). Future studies could set out to provide additional evidence for the differential psychological mechanisms that distinguish between the effects of collectivism and tightness.

Our study offers numerous strengths given the challenges that come with carrying out cross-cultural research. First, due to the broad geographic scope of our study that included 19 countries, our findings are not confined to Western, Educated, Industrialized, Rich, and Democratic (WEIRD) individuals (Henrich, Heine, & Norenzayan, 2010). Second, using multiple measures, our findings illuminate a variety of responses to norm violations, while the systematic multilevel modeling of the data added valuable insights regarding both moderated and mediated effects (Leung & Van de Vijver, 2008). Third, the experimental approach allowed us to draw causal inferences that are often not allowed by cross-cultural studies due to the reliance on correlational designs (Heine, 2016). Fourth, we heeded calls in the literature to pay careful attention to the equivalence of constructs. Fifth, the measurement of cultural dimensions enabled us to "unpack" the observed cultural differences using up-to-date scores (Matsumoto & Yoo, 2006). In sum, we tried to overcome some of the most important limitations of cross-cultural research, which is often restricted by a 2-country comparison, no measurement of underlying processes or contextual variables, and no equivalence testing (Poortinga & Fischer, 2016). However, our methodological approach of testing a conditional indirect effect model with a multilevel structure posed a high demand on the statistical power of our design. This likely explains why some of our effects only applied to the highest end of

the cultural dimensions in our sample (e.g., -2 SDs in our collectivism scale). Although the 19 countries we included varied considerably in collectivism and tightness, they did not cover the entire spectrum of these cultural dimensions (see House et al., 2004 and Gelfand et al., 2011 for examples of cultures with even higher collectivism and tightness scores). Nevertheless, the fact that the effects we observed were linear implies that, had we been able to cover the entire range of the cultural dimensions, we would have likely obtained stronger effects. In this respect, it is important to note that small effect sizes may still have major implications for theory and practice, especially when they pertain to widespread behaviors such as the ones studied here.

The current findings help further our understanding of the social consequences of norm violations and extend previous research on the conditions that influence reactions to norm violations (Bowles & Gelfand, 2009; Stamkou, Van Kleef, Homan, & Galinsky, 2016). To date, empirical studies (which were conducted in Western cultures) had consistently shown that violating norms enhances the transgressor's perceived power (Belleza et al., 2014; Van Kleef et al., 2011). The current research indicates that the positive relationship between norm violation and power perception is not universal, as this relationship is reversed in collectivistic cultures. This novel finding may be explained by the different ways people conceptualize power and the different stereotypes people hold about the powerful across cultures. For instance, in countries where norm violators are seen as more powerful, people may think of power in terms of entitlement and may picture the powerful as assertive and unconstrained individuals. Conversely, in countries where norm followers are seen as more powerful, people may think of power in terms of responsibility and may portray the powerful as modest and restrained individuals (Torelli & Shavitt, 2010). These power concepts and power stereotypes may serve higher-order goals related to the culture's needs, which become manifest in divergent leadership preferences (Aktas et al., 2015). Restrained leaders are likely to show norm-abiding behavior, which would make them more effective in more collectivistic societies where respect for tradition, face saving, and modesty are valued. On the other hand, self-directed leaders may be more inclined to deviate from the norm, which could increase their effectiveness in more individualistic societies where innovation, uniqueness, and independence are praised (House et al., 2004).

Besides these theoretical implications, our findings have practical implications for the rapidly growing field of intercultural competence. Intercultural competence refers to the challenge of understanding, adjusting, and excelling in modern multicultural societies (Deardorff, 2009). In this respect, one relevant conclusion that follows from the current research is that deviating from the norm may enhance one's status in individualistic societies but may backfire in collectivistic societies. Another conclusion is that norm violators have a more challenging path to the top in tighter societies, where the only way up seems to be norm adherence. Given that culture is not only defined by country borders, this knowledge may also apply to meso- or micro-level communities (e.g., counties, organizations, professions) that differ in their group orientation or the strength of their norms (Harrington & Gelfand, 2014).

The current study sheds some light on the consequences of norm-violating behavior, which may also help understand the incentives of deviant behavior in organizations across different cultural contexts. Organizational studies have shown that employees are more likely to engage in unethical behavior when they experience high risk of being excluded from their group (Thau, Defler-Rozin, Pitesa, Mitchell, & Pillutla, 2015) and under conditions of environmental uncertainty (Thau, Bennett, Mitchell, & Marrs, 2009). These findings imply that in

collectivistic cultures employees may be more prone to violate norms as a means of coping with the threat of being excluded by the group, whereas employees in tighter cultures may engage in workplace deviance as a means of regaining control under conditions of organizational disorder.

In conclusion, our research revealed that individuals' perceptions, emotions, and behavioral tendencies toward norm violators are colored by prevailing cultural values. Considering the role of culture thus helps to understand how norm violations shape social hierarchies.

Appendix 2.A

Actor's Behavior Manipulation

Actor's behavior was manipulated by means of a vignette. The English version of the norm violation vignette reads as follows:

K works for a medium-sized consultancy company that employs 20 people. Today is the Annual General Meeting of the company and everyone is expected to be present. At 12:00 sharp the meeting organizer starts the discussion by introducing issues that concern the company. K arrives late to the meeting (12:10), walks in without knocking, and causes some commotion while getting seated.

Halfway through the meeting, K really wants some coffee. But to get coffee, he would have to stand up and walk to the other side of the room where the coffee pot is. Although it's not appropriate, K stands up and crosses through the center of the room to get to the coffee pot. He gets a cup of coffee, grabs the last few cookies, leaving none left, and walks back to his seat.

Toward the end of the meeting, the issue of cell phone use comes up. The company has certain rules about using cell phones during working hours, but employees have occasionally expressed divergent opinions on this issue. One of the employees starts explaining why he finds rules necessary and continues to do so for a few minutes. K disagrees with his colleague and interrupts him to express his opinion: "I don't see your point at all about the importance of rules, rules are there to be broken." Other employees also give their opinions and in the end the organizer rounds off the discussion. The meeting has now finished and everybody leaves the room.

The norm adherence vignette reads as follows:

K works for a medium-sized consultancy company that employs 20 people. Today is the Annual General Meeting of the company and everyone is expected to be present. K arrives well on time (11:50), takes a seat, and gets prepared for the meeting. At 12:00 sharp the meeting organizer starts the discussion by introducing issues that concern the company.

Halfway through the meeting, K really wants some coffee. But to get coffee, he would have to stand up and walk to the other side of the room where the coffee pot is. Because this would not be appropriate, K decides to wait until the end of the meeting.

Toward the end of the meeting, the issue of cell phone use comes up. The company has certain rules about using cell phones during working hours, but employees have occasionally expressed divergent opinions on this issue. One of the employees starts explaining why he finds rules unnecessary and continues to do so for a few minutes. K disagrees with his colleague and waits for him to finish to express his opinion: "Thank you for pointing out the problems of some rules, but rules are there for a reason." Other employees also give their opinions and in the end the organizer rounds off the discussion. The meeting has now finished and everybody leaves the room while K crosses through the center of the room to get to the coffee pot. He gets a cup of coffee and a cookie, and heads back to his office.

CHAPTER 3

The Art of Influence: When and Why Deviant Artists Gain Impact

This chapter is based on Stamkou, E., Van Kleef, G. A., & Homan, A. C. (2016). *The art of influence. When and why deviant artists gain impact*. Manuscript submitted for publication.

The rue le Peletier is a road of disasters. After the fire at the Opera, there is now yet another disaster there. An exhibition has just been opened at Durand-Ruel which allegedly contains paintings. I enter and my horrified eyes behold something terrible. Five or six lunatics, among them a woman, have joined together and exhibited their works. I have seen people rock with laughter in front of their pictures but my heart bled when I saw them. These would-be artists call themselves revolutionaries, "Impressionists". They take a piece of canvas, colour and brush, daub a few patches of paint on it at random, and sign the whole thing with their name. It is a delusion of the same kind as if the inmates of Bedlam picked up stones from the wayside and imagined they had found diamonds. (Leroy, 1876, as cited by Gombrich, 1995, p. 519)

Of the few humans who are remembered centuries after their death, a large proportion are artists. Painters like Claude Monet, the famous pioneer of Impressionism, are nowadays considered geniuses, but in their time they were fiercely criticized for violating prominent norms of beauty, as the above review mirthfully illustrates. From a psychological point of view, deviations from prevailing norms pose a challenge to the viewer because they disrupt fluency and render meaning extraction more effortful (Koffka, 1935; Landau, Solomon, Pyszczynski, & Martens, 2006; Reber, Schwarz, & Winkielman, 2004; Reber, Winkielman, & Schwarz, 1998; Rosch, 1975). Why, then, do visual artworks often contain deviations that obstruct beholders' processing and understanding of the art? And how do deviant artists gain recognition and make a lasting impact? The theoretical model developed here seeks to explain how the adoption of a deviant artwork style contributes to an artist's impact. Our approach bridges theorizing and research in psychology with empirical and philosophical accounts of aesthetics to provide a comprehensive model that accounts for the role of deviance in shaping artists' impact.

How Deviance Shapes Artistic Impact

How does deviance from prevailing norms shape an artist's impact? At first blush, one might think that artistic deviance undermines impact, because unexpected stimuli are more difficult to process and comprehend (Koffka, 1935; Landau et al., 2006; Reber et al., 1998, 2004; Rosch, 1975). Indeed, theories of visual perception hold that perceiving predicted stimuli provides an evolutionary advantage, because fewer cognitive resources are needed to process predictable rather than unpredictable stimuli (de-Wit, Machilsen, & Putzeys, 2010). Preferences for predictable stimuli have been observed with regard to color (Martindale & Moore, 1988), furniture (Whitfield & Slatter, 1979), paintings (Farkas, 2002), and exemplars of other semantic categories (Martindale, Moore, & West, 1988). In the social domain too, people tend to prefer individuals who adhere to norms and rules rather than individuals who violate norms and rules, because the latter pose a potential threat to smoothly functioning groups and societies (Heerdink, Van Kleef, Homan, & Fischer, 2013; Jonas et al., 2014; Proulx, Heine, & Vohs, 2010; Van Kleef, Wanders, Stamkou, & Homan, 2015). In a complementary vein, ideas that violate expectations and people who violate gender norms are often discouraged and treated with suspicion (Mueller, Melwani, & Goncalo, 2012; Okimoto & Brescoll, 2010). Based on this logic, one would expect people to generally prefer conformist art to deviant art, because the former contains more predictable patterns and conforms more to implicit norms and expectations.

Despite the intuitive plausibility of these arguments, several strands of theorizing and research suggest that people may actually appreciate and reward deviance, both within

and outside the artistic domain. When perceiving works of art, there is typically no need for urgent action, meaning that people have ample time to update their expectations in light of expectancy violations. Unpredicted patterns may therefore pose less of a threat when it comes to encountering deviant art as compared to encountering potentially order-undermining behavior of a deviant group member. In fact, in the safe as-if context of art, works that belie a predicted pattern may even lead to perceptual pleasure, as the wavering state of prediction error amplifies the subsequent positive affect of prediction confirmation by means of a contrast effect (Huron, 2006; Van de Cruys & Wagemans, 2011). Empirical evidence in favor of this account comes from studies investigating the aesthetic appreciation of music. For instance, Sloboda (1991) found that marked violations of expectations in music correlate with "shivers down the spine," which are associated with increases in cerebral blood flow in reward- and euphoria-related regions of the brain (e.g., ventral striatum and orbitofrontal cortex; Blood & Zatorre, 2001). Other theories of visual perception suggest that incongruent and unfamiliar stimuli can cause interest (Berlyne, 1960), which can motivate the exploration of one's environment and the learning of new knowledge, skills, and experiences (Silvia, 2006, 2008).

Research outside the artistic domain also provides suggestive evidence that deviance can, under particular circumstances, contribute to influence. First, research on the perception of social targets has demonstrated that deviating from behavioral standards can bring about positive outcomes. According to evolutionary theorizing on costly signaling (Zahavi & Zahavi, 1997), behaviors that are potentially costly signal an underlying quality. Deviating from norms signals that one experiences the leeway to act according to one's own volition in spite of situational constraints and potential repercussions (Stamkou & Van Kleef, 2014). Indeed, as costly signals, deviations from behavioral norms fuel perceptions of power in observers. Empirical studies showed that individuals who violated prevailing norms were considered more powerful than individuals who complied with the norms (Stamkou, Van Kleef, Homan, & Galinsky, 2016; Van Kleef, Finkenauer, Homan, Gündemir, & Stamkou, 2011). Moreover, norm violators whose behavior benefited others were more likely to be given a leadership role (Popa, Phillips, & Robertson, 2014; Van Kleef, Homan, Finkenauer, Blaker, & Heerdink, 2012). Other studies showed that individuals who entered a boutique wearing gym clothes rather than appropriate attire or who attended a black tie event wearing a red tie were ascribed higher status because they were considered autonomous (Bellezza, Gino, & Keinan, 2014). Of note, when the violator's behavior was portrayed as unintentional, these effects were attenuated, which is consistent with the notion that inferences of power are contingent on the perception that violators have high volitional capacity. In short, deviant behavior can fuel perceptions of influence in social interactions as long as the actor's behavior is considered intentional.

Second, deviation from default thinking styles has been associated with creativity, which is the basis of an artist's reputation and impact. For example, in one study the activation of counter-stereotypical thinking propelled the generation of creative ideas (Goctowska, Crisp, & Labuschagne, 2013). Moreover, divergent cultural experiences, such as multiculturalism or living abroad, foster creative performance by diversifying one's cognitive perspectives (Maddux & Galinsky, 2009; Maddux, Adam, & Galinsky, 2010; Tadmor, Galinsky, & Maddux, 2012). In other studies, participants who were primed with cues representing the concept of deviancy showed greater creative engagement than participants who were primed with conformity cues (Förster, Friedman, Butterback, & Sassenberg, 2005). This association

between divergent thinking and creativity possibly contributes to lay beliefs that maverick artists can create work of high impact (Feist, 1998; Van Tilburg & Igou, 2014).

In sum, given that people who deviate from conventional behaviors or thinking styles gain benefits that may translate into an elevated social position, we propose that artists who use unconventional means of expression in their work may make a greater impact than artists who follow conventional means of expression. Arguably the most straightforward and context-free way to establish such an effect is by comparing non-realistic artworks with realistic artworks.³ Until the second half of the 19th century, artists have always sought to represent their environments in a lifelike manner, thus creating an implicit norm that art is supposed to be a high-fidelity rendition of reality (Gombrich, 1995). This means that artists who produce non-realistic art are more likely to be seen as violating norms and expectations than artists who produce realistic art. Thus, if we accept the premise that deviating from norms and expectations can elevate one's impact in social hierarchies (see Van Kleef et al., 2015), the hypothesis follows that artists who produce non-realistic art are perceived as more impactful than artists who produce realistic art.

Considering Artistic Deviance In Its Social Context

We contend that deviating from prevailing norms and expectations can boost an artist's impact, but this effect is likely to be context-dependent. Research outside the artistic domain has found that individuals who violate behavioral norms are more likely to evoke negative emotions such as anger and blame (Helweg-Larsen & LoMonaco, 2008; Kam & Bond, 2009; Ohbuchi et al., 2004), to be punished (Baker & Faulkner, 1991; Becker, 1982; Boyd & Richerson, 1992; Zuckerman, 1999), to be considered uncommitted to the group (Feldman, 1984), and to lose their leadership position (Yukl, 2010). Moreover, it is clear that some of the most influential painters and sculptors of all times (e.g., Rembrandt, Michelangelo, Leonardo da Vinci) strove to make their art as realistic as possible. This suggests that the association between deviant art and influence cannot be fully captured in a simple main effect that holds true across situations and art periods. Rather, we argue that a proper understanding of the consequences of producing deviant art requires that one consider the deviant art in its social-historical context (Bullot & Reber, 2013; Leder et al., 2004; Levinson, 2007).

Here we focus on two different types of context that we believe may shape perceivers' responses to deviant art: the artist's own previous work and the work of the artist's contemporaries. Deviating from one's own previous style can be considered a form of *intrapersonal deviance*, whereas deviating from the predominant style of one's contemporaries constitutes a form of *interpersonal deviance*. In the first case, the focus is on how an artist's work is judged against the context of his or her own previous style, whereas in the second case the focus is on how an artist's work is judged against the style adopted by the majority of his or her contemporaries.

Intrapersonal Deviance

New art movements do not emerge out of a vacuum. Art mostly evolves in an incremental way, where the new is folded into the old (Gombrich, 1995), much alike biological and cultural evolution (Heine, 2015; Nunn, 2008; Vöigtlander & Voth, 2012). Accordingly,

³ Artwork styles that aim to render a naturalistic representation of the external world (e.g., realism, symbolism, romanticism) are grouped under the term "realistic". In contrast, artwork styles that defy the naturalistic representation norm (e.g., impressionism, cubism, abstract expressionism) are defined as "non-realistic".

artworks are often judged against the background of the artist's previous work, and indeed many expositions are structured chronologically so as to highlight the artist's development over time. This notion of contextual judgment is important, because it implies that the evaluation of a particular piece of art may depend on the type of art the artist made before. In other words, a deviant artwork may be judged differently depending on whether the artist made conformist or deviant art before.

According to idiosyncrasy credits theory (Hollander, 1958), one can only deviate from old practices after one has proven oneself capable of following them. Earlier conformity to old practices allows others to develop confidence in a person's skills and commitment to the group, which in turn licenses deviance at a later stage (Bray, Johnson, & Chilstrom, 1982; Stone & Cooper, 2009). The operation of such mechanisms can be seen in the careers of famous artists. For instance, historical analyses of the career of the pop band The Beatles highlight how the early albums of The Beatles conformed to the norms of their time, and how after gaining credits by following these norms they began producing highly innovative music that skyrocketed their sales and fame (Inglis, 1996). Another example is found in the rap scene where Lena and Pachucki (2013) empirically demonstrated that rap artists gained status by first showing a repetition of practices that were understood as legitimate by their audience and then introducing novel artistic content that increased their popularity. In classical music too, Beethoven diligently studied and even copied parts of the works of his musical predecessors (e.g., Haydn, Mozart, Bach) before he pushed the boundaries of traditional compositional technique to infuse his late works with unheard-of passion and drama that account for his international fame (Schonberg, 1997; Swafford, 2014).

Extending these ideas to the realm of the visual arts, we argue that it is important for artists to obtain sufficient idiosyncrasy credits by first practicing conventional art forms before allowing themselves the leeway to stray from realism into non-realism. If an artist only makes non-realistic art, observers may assume that this choice of style is dictated by lack of alternatives – because, for instance, the artist did not have the skills to produce realistic art – rather than by a deliberate choice. If an artist, however, makes art of both realistic and non-realistic styles, observers may assume that the artist is able to produce conventional art, but deliberately chose to adopt an unconventional artistic style. In this latter case, the artist's choice to shift from a realistic to a non-realistic style indicates the artist's will to develop an autonomous artistic path. Appreciating the artist's course of action under the prism of intentionality should in turn enhance perceptions of impact (Bellezza et al., 2014; Stamkou & Van Kleef, 2014).

In light of these considerations, we hypothesize that artists who both follow and deviate from the realistic representation norm are credited more for their work than artists who either consistently follow or consistently violate the realism norm. In addition, we propose that artists whose work progresses from a realistic style to a non-realistic style are perceived as having greater impact potential than artists whose styles progress in the reverse order.

Interpersonal Deviance

Judgments of artists' work are not only influenced by their own artistic histories but also by their contemporaries' work, which constitutes the context within which a given artwork is evaluated (Barkow, Cosmides, & Tooby, 1992; Leder et al., 2004; Sammartino & Palmer, 2012). Specifically, the psycho-historical theory of art appreciation posits that individuals' responses to artworks rely not only on the visible traces of the artwork but also on their knowledge about the context in which the artist worked (Bullot, 2009; Bullot & Reber, 2013; Reber, 2012). The

context of an artwork makes people pay attention to and inquire about the intentions of the artist. For instance, a non-realistic artwork usually contains features that are difficult to process, and this lack of processing fluency may undermine the viewers' understanding and appreciation of the artwork (Reber et al., 1998, 2004; Wiersema, Van der Schalk, & Van Kleef, 2012). A non-realistic artwork that is presented among realistic artworks, however, may prompt viewers to quest into the artist's reasons for adopting a deviant style and thus to infer the artist's will to propose novel means of expression. In other words, the context of the artwork may lead people to make sense of the deviance through their inferences about the artist's volitional capacity (Stamkou & Van Kleef, 2014). Suggestive empirical support for the role of context in shaping the appreciation of artworks comes from a study showing that a mismatch between the style of a focal design object and the style of contextual design objects increased the perceived value of the focal object (Blijlevens, Gemser, & Mugge, 2012).

In keeping with these theoretical accounts and empirical findings, we propose that artists who deviate from their contemporaries' styles (i.e., interpersonal deviance) are perceived as more impactful than artists who follow their contemporaries' styles, because their decision to deviate indicates that their choice of style is dictated by their own intentions rather than by external influences. Furthermore, as in the case of intrapersonal deviance, we propose that this effect is asymmetrical in the sense that deviating from realism toward non-realism fuels stronger perceptions of impact than deviating from non-realism toward realism due to the historical evolution of art movements. In the world of visual arts, popular styles have changed throughout the centuries, with realistic forms of art mostly being the norm up until the second half of the 19th century. By the end of the 19th century several innovative art movements gained ground, and by the end of the 20th century all movements that rose to prominence rejected the study of natural appearances (Gombrich, 1995). The production of realistic artworks nowadays may thus be considered somewhat antiquated. This possibility resonates with evolutionary theories on the accumulation of cultural information. Given that innovations build on previously existing structures (Vöigtlander & Voth, 2012), cultural information grows in complexity over time, and so cultural evolution moves like a ratchet – it only goes forward and never slips back (Tennie, Call, & Tomasello, 2009). Apparently the same happens with the evolution of art styles, since artistic development over time is the result of an unquenchable thirst for novelty (Martindale, 1990). As such, artists who embrace older art styles might be seen as retrogressive and therefore less impactful.

In sum, we propose that the basic hypothesized effect of realism deviance on artistic impact compounds the effect of interpersonal deviance in an additive way. That is, we expect that deviating from realism and deviating from one's contemporaries can both increase an artist's perceived impact, and simultaneously deviating from both produces maximum impact.

Overview of Model and Hypotheses

Based on the theorizing above, we advance three interrelated hypotheses and propose a generic mechanism that drives the effects of deviance. First, we predict that artists whose work deviates from the realistic representation of objects are perceived as more impactful than artists whose work follows the realistic representation norm (*realism deviance hypothesis*). Second, drawing on the notion that deviance is accepted more when it is preceded by compliance (Hollander, 1958), we hypothesize that artists who deviate from their previous means of expression by adopting distinct styles within their career are seen as more impactful than artists who consistently follow a certain style (*intrapersonal deviance hypothesis*). Moreover, we hypothesize that the effect of intrapersonal deviance is more

pronounced if the artist's style transitioned from realism to non-realism rather than the other way around. Third, given that artists are evaluated in the context of their contemporaries' work (Bullot & Reber, 2013; Kubovy, 2000), we propose that artists who deviate from their contemporaries' style are considered more impactful than artists who follow their contemporaries' style (*interpersonal deviance hypothesis*). Furthermore, we hypothesize that the effect of interpersonal deviance is more pronounced when artists deviate from a predominant realistic style by using non-realistic means of expression rather than when they deviate from a predominant non-realistic style by using realistic means of expression. Finally, we propose that the effects of deviance on artistic impact are driven by observers' inferences about the artists' intentionality in their choice of style (e.g., deviating from one's previous style and others' style out of personal willpower).

In conjunction, we hypothesize that deviant artwork styles enhance an artist's impact, in particular when the artwork style is different from the style previously employed by the artist and the style currently employed by other artists. In other words, realism deviance is the overarching theme of our model, and we qualify its effects by examining deviance at the intrapersonal and interpersonal levels of analyses. Our theoretical model is visualized in Figure 3.1.

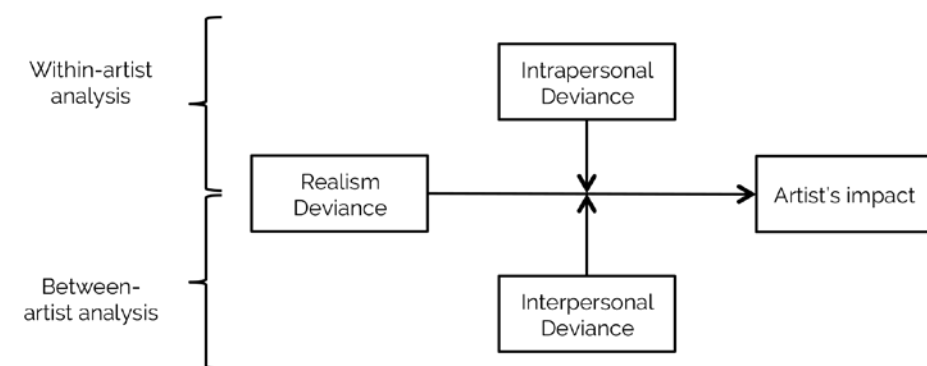


Figure 3.1. Theoretical model illustrating that deviant artwork styles enhance an artist's impact (realism deviance), especially when the artwork style also deviates from the style previously employed by the artist (intrapersonal deviance) and the style currently employed by the artists' contemporaries (interpersonal deviance).

Overview of Studies

We conducted two studies to examine each type of deviance. Studies 3.1 and 3.2 focused on realism deviance (i.e., deviance from the implicit norm of realism), Studies 3.3 and 3.4 focused on intrapersonal deviance (i.e., deviance from one's own previous style, whether in the direction of realism or non-realism), and Studies 3.5 and 3.6 focused on interpersonal deviance (i.e., deviance from the predominant style of one's contemporaries, whether in the direction of realism or non-realism).

Across studies, we used different ecologically valid operationalizations of artistic impact that were informed by prominent definitions of impact in the field of art (Schonfeld & Reinstaller, 2007). According to these definitions, impactful artists are influential (influence), and produce artworks that are highly priced (valuation) and catch people's attention (attention). We assessed the influence aspect by measuring the extent to which an artist is

Table 3.1

Sample Characteristics and Operationalization of Artistic Impact per Study

Study	Sample size		Age		Gender			Artistic impact operationalization
	Required	Actual	M (SD)	Range	Men	Women	Trans-gender	
3.1	-	200	19.63 (1.55)	18 – 26	21	179	0	Perceived influence
3.2a	36	40	61.46 (10.73)	23 – 83	17	23	0	Purchase intention
3.2b	62	109	20.17 (1.60)	18 – 26	27	82	0	Preferred choice
								Purchase intention
3.3	96	116	35.12 (15.98)	18 – 78	57	59	0	Preferred choice
								Perceived influence
3.4	122	136	23.00 (6.85)	18 – 65	41	95	0	Price estimation
3.5	168	172	35.88 (11.92)	18 – 75	95	76	1	Perceived influence
3.6	181	227	20.46 (3.01)	18 – 44	75	138	1	Perceived influence
								Purchase intention
								Visual attention

Note: The required sample size was based on power analyses that used the cumulative effect size of previous studies to compute the required sample of each follow-up study. However, the required sample size of Study 3.3 was only based on the cumulative effect size of Studies 3.1 and 3.2a because Study 3.2b data were collected in parallel to Study 3.3 data. In Study 3.6, age and gender data from 13 participants were not recorded. Purchase intention and preferred choice correlated positively in Study 3.2a, $r(32) = .66, p < .001$, and Study 3.2b, $r(109) = .28, p = .012$. Perceived influence and price estimation correlated positively in Study 3.3, $r(112) = .33, p < .001$, and Study 3.6, $r(227) = .33, p < .001$. Visual attention correlated positively with purchase intention, $r(227) = .15, p = .027$, and showed no significant correlation with perceived influence, although their relationship was in the predicted direction, $r(227) = .11, p = .090$.

perceived to be influential (Studies 3.1, 3.3, 3.4, 3.5, and 3.6). We assessed the valuation aspect by measuring intentions to purchase merchandise that depicts the artist's work (Studies 3.2 and 3.6) or the estimated price of an artist's work (Study 3.3). Finally, we measured the attention aspect by investigating the preferred choice of an artwork among other artworks (Study 3.2) and engagement of visual attention while looking at the artwork (Study 3.6). An overview of the artistic impact operationalizations per study is presented in Table 3.1.

All studies started with a brief introduction, after which participants indicated their participation consent. Participants were then presented with high-quality copies of original artworks, and they indicated whether they thought the artists would gain (or had gained) impact in terms of influence, valuation, and attention. We also estimated individuals' beliefs about the artist's willpower (Studies 3.4 and 3.6) to examine whether inferences about the intentionality of the artist's actions could explain the effects of deviance on the various indices of artistic impact. Additional measures that functioned as manipulation checks, control variables, and alternative mediators are described in the method section of each study. The artworks used in each study were retrieved from an online and open-access visual art encyclopedia (www.wikiart.org).

Study 3.1

The goal of Study 3.1 was fivefold. First, we investigated the realism deviance hypothesis by comparing the impact of artists who employed non-realistic styles to artists who employed realistic styles. Second, we examined whether perceived unconventionality of the artwork accounts for the effect of artist's style on artistic impact, as our theorizing would suggest. Third, we examined whether the effect of artist's style on artistic impact depends on the genre of the artwork by testing the five most prominent genres. Fourth, we tested the alternative explanation that non-realistic artworks enhance the artist's impact because they are considered more beautiful than realistic artworks by examining whether perceived attractiveness of the artwork explains the effect of artist's style on perceived artistic impact. Finally, we used the findings to obtain an effect size that we then used to estimate the required sample sizes of follow-up studies (see Table 3.1). The current study focused on the influence aspect of artistic impact.

Method

Sample. Because existing literature provided no indication of the size of the hypothesized effect, we aimed at a large sample to ensure we would achieve sufficient statistical power. Two-hundred individuals participated in the study in exchange for course credits. Participants were Dutch students who were recruited via an online system of the University of Amsterdam (www.test.uva.nl), and they were compensated with course credits. Further details about the sample (i.e., age and gender) appear in Table 3.1.

Design, materials, and procedure. Participants were randomly assigned to the realistic style condition or the non-realistic style condition. They saw five artworks of various genres (i.e., portraits, flowers, animals, still lives, landscapes) that represented a realistic or non-realistic style and were presented in their original color shade (see Appendix 3.A). We then measured the perceived unconventionality of each artwork with a bipolar item ranging from 1 = *conventional* to 7 = *unconventional* and perceived attractiveness with a bipolar item ranging from 1 = *unappealing* to 7 = *appealing*. Next, we measured perceived influence of each artist with three items ("I think this artist ... has influenced his contemporaries", "... made a great contribution to art", and "... is famous"), which were answered on 7-point Likert scales ranging

from 1 = *strongly disagree* to 7 = *strongly agree* (mean α = .80 across genres, with a range of .70 to .87).

Results

In three repeated-measures analyses of variance (RM-ANOVAs) we examined the effects of artist's style (between-subjects factor) and artwork genre (repeated-measures factor) on perceived unconventionality, perceived attractiveness, and perceived influence. Although we had no predictions about any effects of artwork genre, below we report for each measure whether significant main or interaction effects involving genre were observed. Results pertaining to the main effects of artwork genre are described in the Supplementary Material Chapter 3. Descriptives (means, standard deviations, and 95% CI) for perceived unconventionality, perceived attractiveness, and perceived influence are displayed in Table 3.2, and test statistics are reported in text below.

Perceived unconventionality (manipulation check). Because the sphericity assumption was violated, $\chi^2(9) = 17.40$, $p = .043$, the degrees of freedom were corrected using the lower-bound estimates of sphericity. The results showed the anticipated main effect of artist's style, with non-realistic artworks being perceived as more unconventional than realistic artworks, $F(1, 198) = 45.17$, $p < .001$, $\eta_p^2 = .19$. We also observed a main effect of artwork genre, which is not relevant for present purposes, $F(1, 198) = 24.24$, $p < .001$, $\eta_p^2 = .11$ (see left panel of Figure S3.1 in Supplementary Material Chapter 3). There was no significant interaction between artist's style and artwork genre, $F(1, 198) = 2.28$, $p = .133$, $\eta_p^2 = .01$. This indicates that the intended effect of artist's style on perceived unconventionality did not differ significantly depending on artwork genre.

Perceived attractiveness. Due to the sphericity assumption violation, $\chi^2(9) = 57.18$, $p < .001$, the degrees of freedom were corrected using the lower-bound estimates of sphericity. The results showed no main effect of artist's style, $F(1, 198) = 0.04$, $p = .914$, $\eta_p^2 < .01$, a main effect of artwork genre, $F(1, 198) = 26.44$, $p < .001$, $\eta_p^2 = .12$, and an interaction between artist's style and artwork genre, $F(1, 198) = 4.31$, $p = .039$, $\eta_p^2 = .02$. Inspection of the means indicated that this interaction was driven by the non-realistic painting in the animal genre (see Table 3.2 and right panel of Figure S3.1 in Supplementary Material Chapter 3). Therefore, with the exception of the genre of animals, there was no evidence that non-realistic paintings were perceived as more or less attractive than realistic paintings.

Perceived influence. The analysis revealed the hypothesized main effect of artist's style, with artists who produced non-realistic artworks being perceived as more influential than artists who produced realistic artworks, $F(1, 198) = 20.27$, $p < .001$, $\eta_p^2 = .09$. We also observed a main effect of genre, $F(4, 792) = 53.01$, $p < .001$, $\eta_p^2 = .21$ (see Supplementary Material Chapter 3). There was no significant interaction between artist's style and genre, $F(4, 792) = 1.63$, $p = .164$, $\eta_p^2 = .01$ (see Figure 3.2). Again, we conclude that, across genres, artists who make non-realistic paintings are perceived as more influential than artists who make realistic paintings.

For exploratory purposes, we also tested the effect of artist's style on influence perception for each artwork genre separately. These analyses showed that artists who made non-realistic artworks were perceived as more influential than artists who made realistic artworks across all artwork genres (portraits: $F(1, 198) = 13.27$, $p < .001$, $\eta_p^2 = .06$; flowers: $F(1, 198) = 6.00$, $p = .015$, $\eta_p^2 = .03$; still lifes: $F(1, 198) = 19.25$, $p < .001$, $\eta_p^2 = .09$; and landscapes: $F(1, 198) = 9.09$, $p = .003$, $\eta_p^2 = .04$) except for the genre of animals, where the effect was only marginally significant, $F(1, 198) = 3.59$, $p = .060$, $\eta_p^2 = .02$.

Mediation analyses. We specified two separate bootstrapped mediation models with artist's style as predictor, perceived unconventionality (Model A) or perceived attractiveness (Model B) as mediators, and perceived influence as outcome variable (Hayes, 2012; Model 4 in PROCESS®, 1000 reiterations). Artist's style was coded as -1 for realistic and 1 for non-realistic. Given that the effects of artist's style on influence perception were highly consistent across genres, we averaged each of the perceived unconventionality, perceived attractiveness, and perceived influence scores across genres, and then centered the aggregate scores.

Model A showed that, in line with our theorizing, the indirect effect of artist's style on perceived influence through perceived unconventionality was significant (point estimate = 0.19, $SE = .04$, 95% confidence interval (CI) [.11 to .27]). Model B showed that, as expected, the indirect effect of artist's style on perceived influence through perceived attractiveness was not significant (point estimate < 0.01, $SE = .03$, 95% CI [-.05 to .05]).

Finally, for exploratory purposes, we tested whether the effect of artist's style on perceived influence was mediated by perceived unconventionality for each separate genre. The mediation was significant for portraits (point estimate = 0.17, $SE = .05$, 95% CI [.09 to .27]), flowers (point estimate = 0.10, $SE = .04$, 95% CI [.03 to .18]), still lifes (point estimate = 0.16, $SE = .05$, 95% CI [.08 to .28]), and landscapes (point estimate = 0.15, $SE = .04$, 95% CI [.06 to .23]), and marginally significant for animals (point estimate = 0.07, $SE = .04$, 90% CI [.01 to .14]).

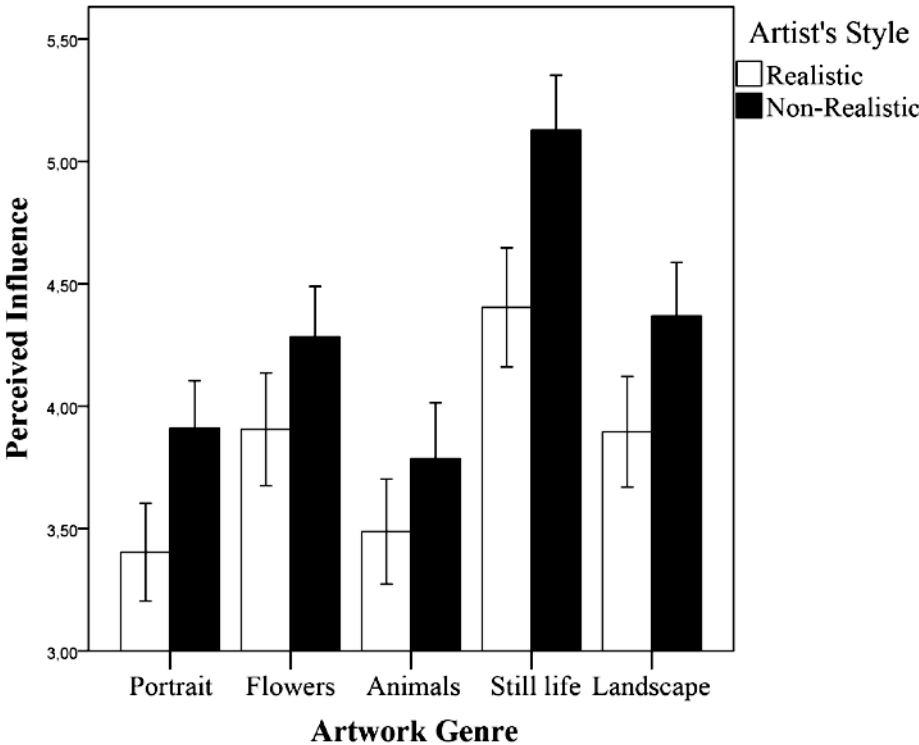


Figure 3.2. Perceived influence as a function of artist's style and artwork genre in Study 3.1. Bars represent means with their associated standard errors.

Table 3.2

Descriptives of Perceived Unconventionality, Perceived Attractiveness, and Perceived Influence across Conditions of Artist's Style and Artwork Genre in Study

3.1

	Artist's style: realistic		Artist's style: non-realistic		Total ^a
	M (SD)	95% CI	M (SD)	95% CI	
Perceived unconventionality					
Artwork genre: portraits	3.69 (1.20)	[3.42, 3.95]	4.77 (1.43)	[4.51, 5.03]	4.23 (1.43)
Artwork genre: flowers	3.45 (1.47)	[3.19, 3.72]	4.01 (1.24)	[3.74, 4.28]	3.73 (1.38)
Artwork genre: animals	3.78 (1.28)	[3.49, 4.06]	4.14 (1.57)	[3.86, 4.42]	3.96 (1.44)
Artwork genre: still lives	4.45 (1.38)	[4.20, 4.71]	5.26 (1.14)	[5.01, 5.51]	4.86 (1.32)
Artwork genre: landscapes	4.14 (1.62)	[3.85, 4.44]	4.93 (1.36)	[4.64, 5.22]	4.54 (1.54)
Total ^b	3.90 (0.76)	[3.75, 4.06]	4.62 (0.75)	[4.47, 4.77]	4.27 (0.84)
Perceived attractiveness					
Artwork genre: portraits	3.92 (1.68)	[3.60, 4.24]	4.02 (1.56)	[3.70, 4.34]	3.97 (1.61)
Artwork genre: flowers	3.90 (1.85)	[3.54, 4.26]	4.03 (1.78)	[3.67, 4.39]	3.97 (1.81)
Artwork genre: animals	4.14 (1.61)	[3.82, 4.46]	3.37 (1.63)	[3.05, 3.68]	3.96 (1.44)
Artwork genre: still lives	4.35 (1.63)	[4.03, 4.67]	4.58 (1.61)	[4.27, 4.90]	4.47 (1.62)
Artwork genre: landscapes	4.96 (1.47)	[4.69, 5.23]	5.34 (1.29)	[5.07, 5.61]	5.15 (1.39)
Total ^b	4.25 (0.91)	[4.07, 4.44]	4.27 (0.76)	[4.12, 4.42]	4.26 (0.84)
Perceived influence					
Artwork genre: portraits	3.40 (1.00)	[3.21, 3.60]	3.91 (0.97)	[3.72, 4.10]	3.66 (1.01)
Artwork genre: flowers	3.91 (1.14)	[3.69, 4.12]	4.28 (1.04)	[4.07, 4.50]	4.10 (1.11)
Artwork genre: animals	3.49 (1.07)	[3.27, 3.71]	3.79 (1.15)	[3.57, 4.00]	3.64 (1.12)
Artwork genre: still lives	4.40 (1.21)	[4.17, 4.64]	5.13 (1.12)	[4.90, 5.36]	4.77 (1.22)
Artwork genre: landscapes	3.90 (1.12)	[3.68, 4.12]	4.37 (1.10)	[4.15, 4.59]	4.14 (1.13)
Total ^b	3.82 (0.76)	[3.67, 3.97]	4.30 (0.74)	[4.15, 4.44]	4.06 (0.78)
Total ^c	4.00 (0.70)	[3.85, 4.15]	4.30 (0.74)	[4.15, 4.44]	4.15 (0.72)

Note. CI = confidence interval.

^a Average descriptives of artist's style conditions

^b Average descriptives of artwork genre conditions

Discussion

Study 3.1 provides initial evidence that artists who adopt non-realistic styles are considered more influential than artists who adopt realistic styles, because non-realistic artworks are seen as more unconventional (but not as more attractive) than realistic ones. These findings support the realism deviance hypothesis, lend confidence to the operationalization of realism deviance by means of realistic versus non-realistic style artworks, and rule out an alternative interpretation of the realism deviance effect in terms of attractiveness. Furthermore, the realism deviance effect generalized across four out of five artwork genres (evidence for the fifth genre being marginally significant), which suggests that the effect is not bound to a specific genre. We used the insights from this initial study to inform the designs of the subsequent studies, as detailed below.

Study 3.2a

In Study 3.2a we aimed to replicate the finding of Study 3.1 by using portraits that were made by the same artist. This design allowed us to examine whether the non-realistic artworks would be rated as more impactful than the realistic ones, even if all artworks were produced by the same artist. We also used a within-subjects design and collected the data at a museum café to access a more diverse and art-savvy sample than the student sample used in Study 3.1. Furthermore, we assessed the valuation and attention aspects of artistic impact, which were operationalized as purchase intention and preferred choice, respectively.

Method

Sample. Forty individuals participated in the study, which had the form of a pen-and-paper questionnaire. Participants were Dutch citizens who were recruited at the café of the Cobra museum in Amstelveen and were compensated with a coffee voucher (see Table 3.1 for further sample details). The museum directorate permitted the execution of the study in their premises.

Design, materials, and procedure. In a fully within-subjects design, participants were presented with nine paintings by the Austrian artist Friedensreich Hundertwasser. We selected an equal number of male portraits from three distinct periods of the artist (see Appendix 3.B). Since the styles Hundertwasser employed across these three periods differed in unconventionality (Rand, 1995), we used the style of each period as an operationalization of realism deviance. The first period's style developed during Hundertwasser's academic education when he was mainly trained in realism. The second period's style developed during Hundertwasser's stay in Paris, where he explored different techniques that steered him away from realism. This period was a transition between an academic style and a more personal style he developed later. In his last period, Hundertwasser developed his idiosyncratic style, Transautomatism, which is considered his most unconventional phase because he portrayed unrealistic figures that meant to create an illusory viewing experience (Rand, 1995).

The artworks were presented in their original color shade on separate pages of the questionnaire in pseudo-randomized order. After seeing each artwork, participants were asked to indicate the extent to which they would buy products depicting the artwork on a scale ranging from 1 = *not at all* to 7 = *very much*. Next, we measured preferred choice by asking participants to pick the artwork they would wish to own as a poster. Because the museum directorate requested that we keep the questionnaire as brief as possible, we only measured the main dependent variables and did not include further measures, such as a manipulation check or control variables.

Results

To examine whether artist's style (operationalized in terms of artist period) influenced purchase intentions, we grouped purchase intention ratings for each artwork into composite scores representing each period. Similarly, we coded preferred choice of an artwork as indicating preference for one of the artist's three periods. Importantly, purchase intention ratings and preferred choice of individual artworks did not differ within each period, which justified the merging of these ratings and choices into three periods. Descriptives for purchase intention are displayed in Table 3.3, and test statistics are reported in text below.

Purchase intention. A RM-ANOVA with the composite purchase intention scores as repeated-measures factor showed that artist's style influenced purchase intention for the artworks of each period, $F(1, 39) = 10.02, p < .001, \eta_p^2 = .20$. Specifically, participants expressed significantly stronger intentions to purchase products depicting idiosyncratic-period artworks than both transition-period artworks, $F(1, 39) = 8.07, p = .007, \eta_p^2 = .17$, and academic-period artworks, $F(1, 39) = 16.67, p < .001, \eta_p^2 = .30$. Academic- and transition-period artworks did not differ significantly in terms of purchase intentions, although there was a marginal trend, $F(1, 39) = 3.63, p = .064, \eta_p^2 = .09$ (see top left panel of Figure 3.3).

Preferred choice. An intercept-only multinomial logistic regression model with period-choice as dependent variable revealed that artist's style influenced preferred choice for each period's artworks, $\chi^2(2) = 25.32, p < .001$. Idiosyncratic-period artworks were picked significantly more often than both transition-period artworks, $b = -1.39$, Wald test(1) = 9.23, $p = .002$, and academic-period artworks, $b = -2.49$, Wald test(1) = 11.40, $p = .001$. There was no significant difference between participants' choices for academic- and transition-period artworks, $b = 1.10$, Wald test(1) = 1.81, $p = .178$ (see top right panel of Figure 3.3).

Discussion

Study 3.2a demonstrated that idiosyncratic artworks that are characterized by non-realistic elements are valued higher and attract people's attention more than artworks made in an artist's academic or transitional periods, where realistic elements are relatively more prominent. In line with the realism deviance hypothesis, this indicates that individuals find greater artistic merit in an artist's most unconventional phase. A potential alternative interpretation of this pattern is that the museum visitors who participated in this study were familiar with Hundertwasser's art. It is possible, for instance, that participants' awareness that the later period was Hundertwasser's most famous period influenced their purchase intentions and poster choices. To address this alternative interpretation, we replicated this study among a sample of university students, who are generally less familiar with art than museum visitors.

Study 3.2b

In Study 3.2b we employed the same design, stimuli, measures, and analyses as in Study 3.2a. In Study 3.2b, however, our sample consisted of 109 Dutch students from the University of Amsterdam who were recruited via an online platform (www.test.uva.nl) and they were compensated with course credits. Furthermore, we fully randomized the presentation order of the artworks, which were presented on the computer screen instead of on paper. We also asked participants whether they had seen any of the artworks before to directly address the potential role of familiarity. Only 6.4% of participants reported having seen at least one of the artworks. When these participants were excluded from the analyses, the direction and magnitude of the effects remained the same. We therefore report the effects including all participants. Descriptives for purchase intention are displayed in Table 3.3, and test statistics are reported in text below.

Results

Purchase intention. There was a significant effect of artist's style on purchase intention for the artworks of each period, $F(2, 216) = 3.57, p = .030, \eta_p^2 = .03$. Specifically, participants expressed stronger intentions to purchase products depicting idiosyncratic-period artworks than both transition-period artworks, $F(1, 108) = 4.11, p = .045, \eta_p^2 = .04$, and academic-period artworks, $F(1, 108) = 6.26, p = .014, \eta_p^2 = .06$. There was no difference in purchase intention between academic- and transition-period artworks, $F(1, 108) = 0.40, p = .528, \eta_p^2 < .01$ (see bottom left panel of Figure 3.3).

Preferred choice. Artist's style also influenced preferred choice for each period's artworks, $\chi^2(2) = 8.51, p = .014$. Idiosyncratic-period artworks were picked more often than transition-period artworks, $b = -0.53$, Wald test(1) = 5.32, $p = .021$, and academic-period artworks, $b = -0.60$, Wald test(1) = 6.50, $p = .011$. There was no difference between participants' choice for academic- and transition-period artworks, $b = 0.07$, Wald test(1) = 0.07, $p = .793$ (see bottom right panel of Figure 3.3).

Discussion

Study 3.2b replicated the findings of Study 3.2a among a sample of students who were largely unfamiliar with the artworks we presented to them. This renders an alternative interpretation of Study 3.2a's results in terms of familiarity less plausible. However, to ensure that art familiarity does not influence participants' evaluation of artistic impact we controlled for self-rated art familiarity in studies 3.3, 3.4, and 3.6. Importantly, the results of these studies did not change after controlling for art familiarity. We therefore report the results here without controlling for art familiarity and provide the results that include art familiarity as control variable in the Supplementary Material Chapter 3 (see Table S3.1).

In sum, Studies 3.1 and 3.2 provide support for the hypothesized effect of realism deviance on artistic impact across different genres and artists. This effect, however, may be qualified by the degree to which an artist shows variation in artistic styles within his or her career. That is, deviance from realism might be especially effective when an artist has shown sufficient merit in a realistic style. This implies that artists who both follow and deviate from the realistic representation norm (intrapersonal deviance) are credited more for their work than artists who either consistently follow or consistently violate the realism norm. Suggestive evidence for the effect of intrapersonal deviance is derived from Studies 3.2a and 3.2b, which included artworks made by the same artist at different periods that varied in unconventionality. A more direct test of the intrapersonal deviance hypothesis is provided in Studies 3.3 and 3.4, where we investigated how the combination and succession of different styles within an artist's career influence the artist's perceived impact.

Table 3.3
Descriptives of Purchase Intention across Conditions of Artist's Style in Studies 3.2a and 3.2b

	Artist's style: academic period		Artist's style: transition period		Artist's style: idiosyncratic period		Total ^a	
	<i>M (SD)</i>	95% CI	<i>M (SD)</i>	95% CI	<i>M (SD)</i>	95% CI	<i>M (SD)</i>	95% CI
Study 3.2a								
Purchase intention	1.74 (1.18)	[1.36, 2.12]	2.17 (1.47)	[1.70, 2.64]	2.74 (1.56)	[2.24, 3.24]	2.22 (1.15)	[1.85, 2.58]
Study 3.2b								
Purchase intention	2.51 (1.08)	[2.31, 2.72]	2.60 (1.34)	[2.35, 2.86]	2.87 (1.41)	[2.60, 3.13]	2.66 (0.98)	[2.74, 2.85]

Note. CI = confidence interval.
^a Average descriptives of artist's style conditions

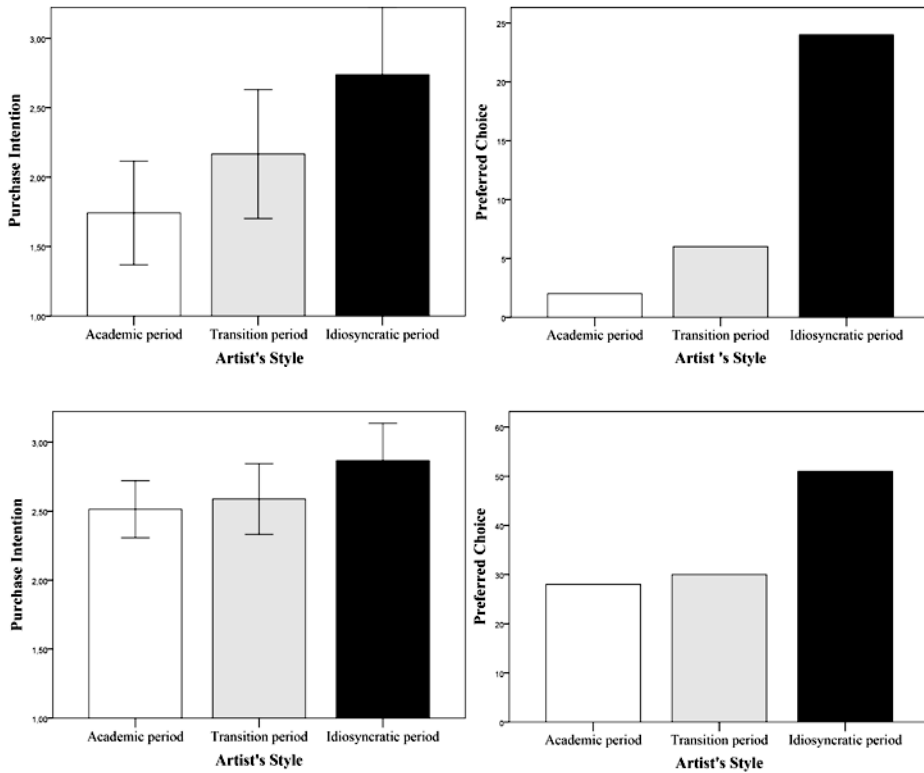


Figure 3.3. Purchase intention and preferred choice as a function of artist's style in Studies 3.2a (top) and 3.2b (bottom). For purchase intention, bars represent means with their associated standard errors. For preferred choice, bars represent frequencies.

Study 3.3

The intrapersonal deviance hypothesis holds that artists who change their styles over the course of their careers are seen as more impactful than artists who consistently follow a certain style. This implies that the evaluation of artists is influenced by the diversity of styles represented in their portfolios. The current study tested the intrapersonal deviance effect by investigating whether artists would gain greater impact when their portfolio contains artworks of both realistic and non-realistic styles (intrapersonal deviance) than when their portfolio contains artworks of only one style (no intrapersonal deviance). We assessed the influence and valuation aspects of artistic impact by measuring perceived influence of the artist and price estimation of the artist's work in an auction.

Method

Sample. The sample consisted of 116 adults who were recruited in a central train station in Amsterdam and participated in the study on a voluntary basis. The study was administered as a paper-and-pencil questionnaire, which could be completed in English (4 participants) or Dutch. The original Dutch questionnaire was translated into English following the back-translation procedure outlined by Brislin (1986). Further sample details appear in Table 3.1.

Design, materials, and procedure. Participants were presented with a portfolio that consisted of four paintings made by Dutch artist Willem De Kooning. We selected paintings from De Kooning because of the stark contrast between his academic period and his abstract expressionism period (Yard, 2007). Participants were randomly assigned to one of three experimental conditions, with the first two being non-deviant and the third one being deviant in terms of the styles represented in the artist's portfolio. That is, the portfolio either included exclusively realistic style artworks (only realistic style), exclusively non-realistic style artworks (only non-realistic style), or an equal number of realistic and non-realistic style artworks (mixed style). In the first condition we used four artworks from De Kooning's academic period, in the second condition we used four artworks from the artist's abstract expressionism period, and in the third condition we showed two artworks from each of the previous conditions (see Appendix 3.C). The artworks were presented on separate pages of the questionnaire in a pseudo-randomized order. All artworks were presented in greyscale.

After seeing all artworks, participants rated the artist's perceived influence with the same scale as in Study 3.1 ($\alpha = .83$). They then estimated the artist's work by filling out an amount in euro they thought one of the artist's paintings would be auctioned for. Given that data collection took place in a train station where people had only limited time while they were waiting to board, we only measured the main dependent variables.

Results

We tested the effect of artist's intrapersonal deviance on perceived influence and price estimation by means of ANOVAs. We also conducted a planned contrast to compare the difference between the deviant condition (mixed style) and the non-deviant conditions (only realistic-style and only non-realistic style). Descriptives for perceived influence and price estimation are displayed in Table 3.4, and test statistics are reported in text below.

Perceived influence. ANOVA showed a main effect of artist's intrapersonal deviance on perceived influence, $F(2, 113) = 7.18, p = .001, \eta_p^2 = .11$. Specifically, the artist was considered more influential when his portfolio included artworks of mixed styles than when his portfolio included artworks of a single style, $t(113) = -3.55, p < .001, d = -0.67$ (see left panel of Figure 3.4).

For exploratory purposes we examined the difference between the deviance condition and each of the non-deviance conditions separately. These analyses showed that the artist was considered more influential when his portfolio included artworks of mixed styles than when his portfolio included exclusively realistic style artworks, $t(113) = -3.73, p < .001, d = -0.70$, or exclusively non-realistic style artworks, $t(113) = -2.39, p = .019, d = -0.45$.

Price estimation. Because the distribution of price estimation scores was positively skewed (skewness = 10.40, $SE = 0.23$), we applied a logarithmic transformation that resulted in a normalized distribution (skewness = 0.75, $SE = 0.23$). ANOVA indicated that artist's intrapersonal deviance influenced respondents' price estimations, $F(2, 109) = 3.33, p = .039, \eta_p^2 = .06$. In line with the intrapersonal deviance hypothesis, participants estimated the artist's work higher when his portfolio included artworks of mixed styles than when his portfolio included artworks of a single style, $t(109) = -2.33, p = .021, d = -0.45$ (see right panel of Figure 3.4).

Again, we explored the difference between the deviance condition and each of the non-deviance conditions. These analyses indicated that the artist's work was estimated higher when his portfolio included artworks of mixed styles than when his portfolio included exclusively non-realistic style artworks, $t(109) = -2.57, p = .012, d = -0.70$, but not when his portfolio included exclusively realistic-style artworks, $t(109) = -1.45, p = .149, d = -0.28$.

Table 3.4

Descriptives of Perceived Influence and Price Estimation across Conditions of Artist's Intrapersonal Deviance in Study 3.3

	Artist's intrapersonal deviance: no (only realistic style)		Artist's intrapersonal deviance: no (only non-realistic style)		Artist's intrapersonal deviance: yes (mixed style)		Total ^a	
	M (SD)	95% CI	M (SD)	95% CI	M (SD)	95% CI	M (SD)	95% CI
Perceived influence	3.82 (1.22)	[3.47, 4.16]	4.14 (1.05)	[3.80, 4.48]	4.72 (0.91)	[4.38, 5.05]	4.23 (1.12)	[4.03, 4.42]
Price estimation	3.68 (0.26)	[3.53, 3.82]	3.57 (0.40)	[3.43, 3.71]	3.83 (0.58)	[3.69, 3.96]	3.69 (0.45)	[3.61, 3.77]

Note. CI = confidence interval.

^a Average descriptives of artist's intrapersonal deviance conditions

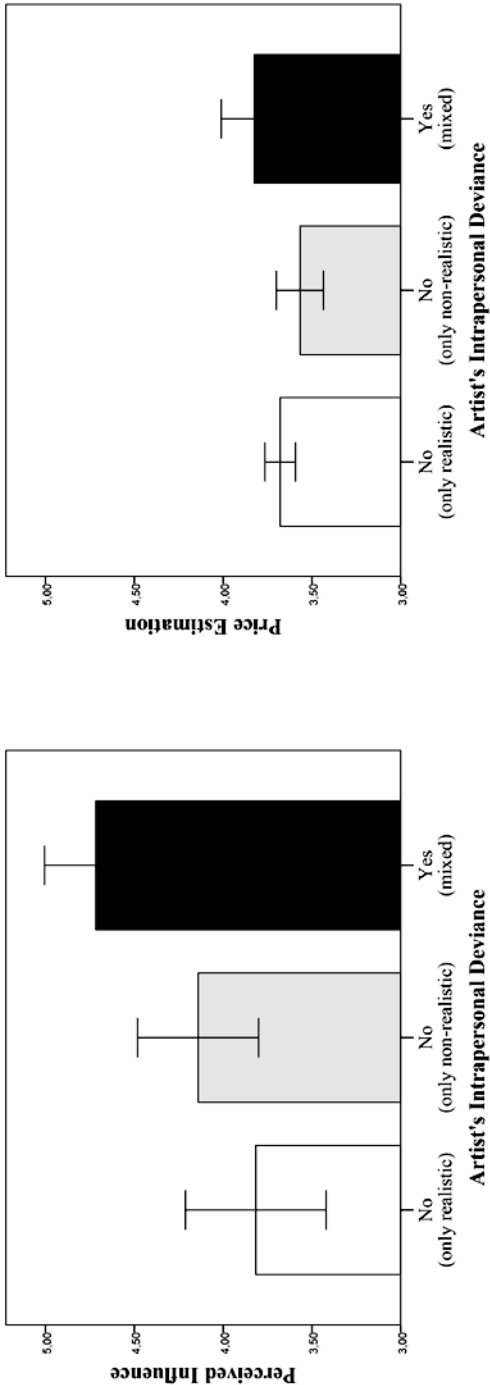


Figure 3.4. Perceived influence and price estimation as a function of artist's intrapersonal deviance in Study 3.3. Bars represent means with their associated standard errors.

Discussion

The results of Study 3.3 indicate that artists are considered more influential and their work is valued higher when they use both realistic and non-realistic forms of expression than when they use only one form of expression. These findings provide initial evidence that deviant artists are better off if they also produce conventional artworks, presumably because these artworks readily testify that the unconventional artworks were a product of the artist's free will rather than the artist's lack of skill (Bray et al., 1982; Hollander, 1958).

In keeping with the intrapersonal deviance hypothesis, the results of the current study suggest that diversification of styles within an artist's career enhances the artist's impact. However, these results do not speak to the question of whether artists should produce their deviant artworks before or after their conventional ones. Moreover, the current study does not provide evidence for the underlying mechanism that drives the effect of intrapersonal deviance, which according to our theorizing relates to viewers' inferences about the artist's intentional shift to alternative means of expression. These limitations were addressed in Study 3.4, where we examined whether the time-point of introducing a deviant style matters and whether the artist's perceived willpower mediates the effect of intrapersonal deviance on artistic impact.

Study 3.4

The current study investigated a specification of the intrapersonal deviance hypothesis, namely that artists have more impact when their work evolves from a conventional style to a deviant style rather than in the opposite order. The logic underlying this prediction is that artists who produce conventional artworks early on in their career and then stray away from conventions demonstrate that their style change is driven by a deliberate choice to broaden the horizon of their artistic expression rather than by a shortage of technical skills. To test this idea, we crossed a manipulation of intrapersonal deviance similar to that employed in Study 3.3 with a manipulation of the artist's early style, so that the artist who deviated either deviated in the direction of non-realism or in the direction of realism. We also investigated whether the effect of intrapersonal deviance on artistic impact could be explained by individuals' perceptions of the artist's willpower to shape their individual artistic path. Finally, we included a manipulation check of intrapersonal deviance. We investigated the above predictions by focusing on the influence aspect of artistic impact.

Method

Sample. One-hundred-thirty-six students from the University of Amsterdam participated in the study in exchange for course credits. Participants were recruited via the university's online system (www.test.uva.nl). Further sample details are provided in Table 3.1.

Design, materials, and procedure. Participants were randomly assigned to a 2(artist's intrapersonal deviance: no vs. yes) x 2(artist's early style: realistic vs. non-realistic) between-subjects experimental design. They were presented with a portfolio of two paintings by Spanish artist Pablo Picasso. We selected two realistic and two non-realistic artworks from Picasso's bull series, which consists of eleven lithographs that show the development of an artwork from a realistic style to a non-realistic style (Daix, 1994). Participants saw two artworks next to each other and they were told that the artist made the left-side artwork at an earlier stage of his career and the right-side artwork at a later stage. The artworks were presented in their original color shade (see Appendix 3.D). In the no-intrapersonal-deviance conditions the

two artworks represented the same style, whereas in the intrapersonal-deviance conditions the two artworks represented different styles.

We then measured the extent to which the artist was considered influential with the same scale used in previous studies ($\alpha = .90$). Next we measured the artist's perceived willpower with the items "I think this artist... has a personal artistic vision", "... thinks out-of-the-box", and "... is open-minded" ($\alpha = .83$). We also asked participants whether they perceived the styles represented in the artist's portfolio to be different to check the manipulation of intrapersonal deviance. Perceived intrapersonal deviance was measured with the items "These two paintings represent two different artistic styles" and the reverse-scored "These two paintings represent two similar artistic styles", $r(136) = .35, p < .001$. All items were answered on 7-point Likert scales ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

Results

We tested the effects of artist's intrapersonal deviance and artist's early style on perceived intrapersonal deviance, perceived influence, and perceived willpower with three 2-way ANOVAs, which we followed up with simple effects analyses. Descriptives for perceived intrapersonal deviance, perceived influence, and perceived willpower are displayed in Table 3.5, and test statistics are reported in text below.

Perceived intrapersonal deviance (manipulation check). There was a main effect of artist's intrapersonal deviance, indicating that artists who deviated from their previous style were perceived as producing artworks of more different styles than artists who did not deviate from their previous style, $F(1, 132) = 71.85, p < .001, \eta_p^2 = .35$. There was no main effect of artist's early style, $F(1, 132) = 1.63, p = .204, \eta_p^2 = .01$. There was no significant interaction effect between artist's intrapersonal deviance and artist's early style, which indicated that the manipulation of artist's intrapersonal deviance was orthogonal to the manipulation of artist's early style, $F(1, 132) = 0.68, p = .411, \eta_p^2 = .01$.

Perceived influence. There was a main effect of artist's intrapersonal deviance, indicating that an artist who deviated from his previous style appeared more influential than an artist who followed his previous style, $F(1, 132) = 4.51, p = .036, \eta_p^2 = .03$. There was no main effect of artist's early style, $F(1, 132) = 0.15, p = .701, \eta_p^2 < .01$. As expected, there was an interaction between artist's intrapersonal deviance and artist's early style, $F(1, 132) = 9.57, p = .002, \eta_p^2 = .07$. Probing the interaction showed that an artist who deviated from his previous style was considered more influential when his early work was realistic rather than non-realistic, $F(1, 132) = 6.05, p = .015, \eta_p^2 = .05$; perceived influence of an artist who did not deviate from his previous style did not depend on his early artwork style, although there was a marginal trend, $F(1, 132) = 3.67, p = .058, \eta_p^2 = .03$ (see left panel of Figure 3.5).

Perceived willpower. There was a main effect of artist's intrapersonal deviance, indicating that an artist who deviated from his previous style was perceived as having stronger willpower than an artist who did not deviate from his previous style, $F(1, 132) = 5.31, p = .023, \eta_p^2 = .04$. There was no main effect of artist's early style, $F(1, 132) = 0.06, p = .802, \eta_p^2 < .01$. There was an interaction effect between artist's intrapersonal deviance and artist's early style, $F(1, 132) = 10.35, p = .002, \eta_p^2 = .07$. Probing the interaction showed that an artist who deviated from his previous style was considered as having stronger willpower when his earlier work was realistic than non-realistic, $F(1, 132) = 6.01, p = .016, \eta_p^2 = .05$. An artist who consistently followed an earlier non-realistic style was perceived as having stronger willpower than an artist who consistently followed an earlier realistic style, $F(1, 132) = 4.40, p = .038, \eta_p^2 = .03$ (see right panel of Figure 3.5).

Moderated mediation. To test whether the interactive effect of artist's intrapersonal deviance and artist's early style on perceived influence was mediated by perceived willpower, we specified a bootstrapped moderated mediation model with artist's early style as predictor, artist's intrapersonal deviance as moderator, perceived willpower as mediator, and perceived influence as outcome (Hayes, 2012; Model 7 in PROCESS[®], 1000 reiterations). Artist's early style was coded as -1 for realistic and 1 for non-realistic, artist's intrapersonal deviance was coded as -1 for non-deviant and 1 for deviant, and perceived willpower was centered at its mean. This model was significant with a point estimate of $-.56$, $SE = .17$, 95% CI $[-.92, -.23]$. Analysis of the simple effects indicated that an artist who deviated from his previous style was perceived as having stronger willpower when his early artwork represented a realistic rather than a non-realistic style, and this willpower perception consequently enhanced the artist's perceived influence ($-.30$, $SE = .12$, 95% CI $[-.55, -.09]$). An artist who followed his earlier non-realistic style was considered as having stronger willpower than an artist who followed his earlier realistic style, and this willpower perception enhanced the artist's perceived influence ($.26$, $SE = .13$, 95% CI $[.001, .52]$).

Discussion

Study 3.4 indicates that artists who deviate from their past style are seen as more influential than artists who follow the same style throughout their careers, especially when artists stray away from their previous realistic style by adopting a non-realistic style. The mediation analysis identified an underlying process that explains this effect: Artists who deviate in the direction of non-realism are seen as having stronger willpower, which enhances individuals' perceptions of the artist's influence.

In line with the intrapersonal deviance hypothesis, Studies 3.3 and 3.4 jointly indicate that artistic impact depends on the diversification of styles showcased in an artist's portfolio and the direction in which an artist's style develops during his or her career. These studies indicate that people evaluate deviant artistic work in the context of the artist's previous work, which is a means of gaining insight into the artist's personal history and intentions. As noted in the Introduction, the evaluation of deviant artistic work likely also depends on the social-historical context of an artwork, which in the case of art is shaped by the most popular style in a given era. In Studies 3.5 and 3.6 we investigated how artistic styles that deviate from the prevalent style of the era – what we termed interpersonal deviance – affect artists' impact.

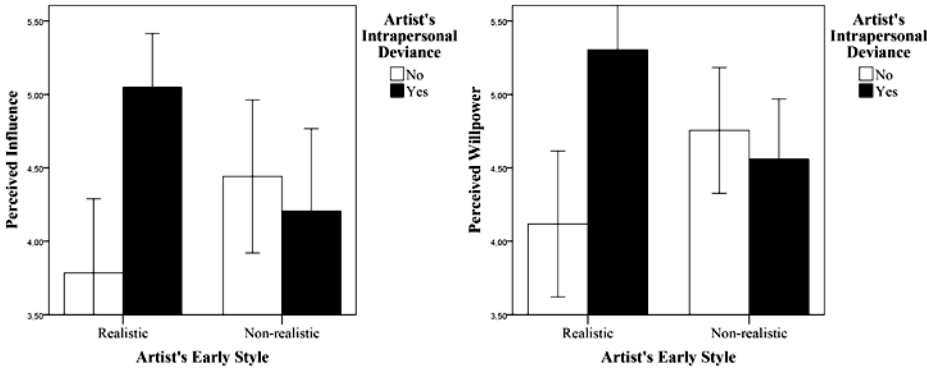


Figure 3.5. Perceived influence and perceived willpower as a function of artist's intrapersonal deviance and artist's early style in Study 3.4. Bars represent means with their associated standard errors.

Table 3.5

Descriptives of Perceived Intrapersonal Deviance, Perceived Influence, and Perceived Willpower across Conditions of Artist's Intrapersonal Deviance and Artist's Early Style in Study 3.4

	Artist's intrapersonal deviance:		Artist's intrapersonal deviance:		Total ^a	
	no		yes			
	<i>M</i> (<i>SD</i>)	95% CI	<i>M</i> (<i>SD</i>)	95% CI	<i>M</i> (<i>SD</i>)	95% CI
Perceived intrapersonal deviance						
Artist's early style: realistic	3.81 (1.04)	[3.42, 4.20]	5.31 (1.04)	[4.92, 5.70]	4.56 (1.28)	[4.29, 4.83]
Artist's early style: non-realistic	3.40 (1.28)	[3.01, 3.79]	5.22 (1.19)	[4.83, 5.61]	4.31 (1.53)	[4.04, 4.58]
Total ^b	3.60 (1.18)	[3.33, 3.88]	5.26 (1.11)	[4.99, 5.54]	4.43 (1.41)	[4.24, 4.63]
Perceived influence						
Artist's early style: realistic	3.78 (1.44)	[3.31, 4.26]	5.05 (1.05)	[4.57, 5.53]	4.42 (1.41)	[4.08, 4.76]
Artist's early style: non-realistic	4.44 (1.49)	[3.96, 4.92]	4.21 (1.61)	[3.73, 4.69]	4.32 (1.54)	[3.98, 4.66]
Total ^b	4.11 (1.49)	[3.77, 4.45]	4.63 (1.41)	[4.29, 4.97]	4.37 (1.47)	[4.13, 4.61]
Perceived willpower						
Artist's early style: realistic	4.12 (1.42)	[3.69, 4.54]	5.30 (1.17)	[4.88, 5.73]	4.71 (1.42)	[4.41, 5.01]
Artist's early style: non-realistic	4.75 (1.23)	[4.33, 5.18]	4.56 (1.17)	[4.13, 4.98]	4.66 (1.20)	[4.36, 4.96]
Total ^b	4.44 (1.36)	[4.14, 4.74]	4.93 (1.22)	[4.63, 5.23]	4.68 (1.31)	[4.47, 4.90]

Note. CI = confidence interval.

^a Average descriptives of artist's intrapersonal deviance conditions

^b Average descriptives of artist's early style conditions

Study 3.5

In Study 3.5, we focused on the necessity for artists to differentiate themselves from their contemporaries' style, which constitutes the core of the interpersonal deviance effect. The style endorsed by an artist's contemporaries forms the context within which a deviant artwork is judged. The artwork's context highlights the deviant artist's intention to introduce new means of expression. We therefore expected that artists who deviate from their contemporaries' style would have more impact than artists who follow the predominant style. However, the interpersonal deviance effect should be more pronounced when artists deviate from realism by making non-realistic art than when they deviate from non-realism by making realistic art, because the former form of deviance reveals the artist's will to introduce a style that could move art forward whereas the latter form of deviance may be seen as retrogressive (Tennie et al., 2009). The current study tested the interpersonal deviance hypothesis by investigating whether an artist would gain greater impact when his artwork appeared among contemporaries' artworks that represented a different style than among contemporaries' artworks that represented the same style. Furthermore, contemporaries' style was manipulated to be realistic or non-realistic so that the artist deviated in the direction of either non-realism or realism. We examined the above predictions by assessing the influence aspect of artistic impact.

Method

Sample. One-hundred-seventy-two American citizens were recruited through Amazon's mechanical Turk (www.mturk.com). The study was administered as an online questionnaire and participants were compensated with money (see Table 3.1 for further sample details).

Design, materials, and procedure. Participants were randomly assigned to a 2(artist's interpersonal deviance: no vs. yes) x 2(contemporaries' style: realistic vs. non-realistic) between-subjects experimental design. Participants viewed three artworks of the same or different style, and they were told that all artworks dated from the beginning of the 20th century (see Appendix 3.E). We presented this information because we wanted to create the impression that the artists were contemporaries. The artworks were presented in their original color shade. Participants were then asked to evaluate the second artwork and the artist who made it (the focal artist). All artworks depicted female portraits made by different artists, except for the focal artworks that were both made by the same artist (i.e., Picasso). After showing each artwork to participants, we measured perceived influence with the same scale used in the previous studies ($\alpha = .80$).

Results

We tested the effects of artist's interpersonal deviance and contemporaries' style on perceived influence with a 2-way ANOVA. We followed up these analyses with simple effects analyses to test the effect of contemporaries' style on the perception of deviant and non-deviant artists. Descriptives are displayed in Table 3.6, and test statistics are reported in text below.

Perceived influence. There was a main effect of artist's interpersonal deviance, with deviant artists being perceived as more influential than non-deviant artists, $F(1, 168) = 6.06$, $p = .015$, $\eta_p^2 = .04$. There was no main effect of contemporaries' style, $F(1, 168) = 1.23$, $p = .270$, $\eta_p^2 = .01$. As predicted, there was a significant interaction effect between artist's interpersonal deviance and contemporaries' style, $F(1, 168) = 7.13$, $p = .008$, $\eta_p^2 = .04$. Probing the interaction revealed that artists who deviated from a predominant realistic style by using non-realistic

means of expression were seen as more influential than artists who deviated from a predominant non-realistic style by using realistic means of expression, $F(1, 168) = 7.35, p = .007, \eta_p^2 = .04$. Artists who followed a predominant non-realistic style did not differ from artists who followed a predominant realistic style, $F(1, 168) = 1.31, p = .253, \eta_p^2 = .01$ (see Figure 3.6).

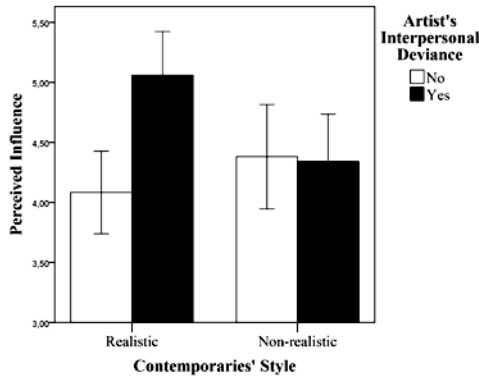


Figure 3.6. Perceived influence as a function of artist's interpersonal deviance and contemporaries' style in Study 3.5. Bars represent means with their associated standard errors.

Discussion

Study 3.5 demonstrated that artists who deviate from their contemporaries' style are seen as more influential than artists who follow the predominant style. The results additionally showed that deviating from the predominant style is more effective when the artist breaks away from his or her contemporaries' realistic styles by using non-realistic means of expression than when the artist deviates from contemporaries' non-realistic styles by using realistic means of expression. These findings thus provide evidence for the interpersonal deviance effect and its magnifying conditions, but they provide no insight into the underlying processes that drive the effect of interpersonal deviance on perceived artistic impact. This limitation was addressed in Study 3.6, where we measured whether the belief that the artist's behavior is not being influenced by other people, that is, inferences about the artist's willpower, would mediate the effect of interpersonal deviance on artistic impact.

Study 3.6

Study 3.6 aimed to replicate the findings of Study 3.5 by incorporating a number of methodological improvements. First, we investigated whether the effect of interpersonal deviance on artistic impact operates through perceived willpower, which was the main mediator suggested in previous studies that examined the effects of norm violation on power and status (Bellezza et al., 2014; Van Kleef et al., 2011). Second, we used a greater number of contemporaries' artworks compared to the previous study and changed the position of the focal artwork to see whether we would find similar effects. Third, we included a manipulation check of interpersonal deviance. Finally, we examined whether the effect of interpersonal deviance generalizes to an indirect behavioral measurement of impact, namely visual attention. Since indirect measures are unobtrusive, they can be very insightful as long as they are validated against other direct measures (Palmer, Schloss, & Sammartino, 2013). We therefore also included perceived influence and purchase intention as direct measures of the influence and valuation aspects of artistic impact, respectively.

Method

Sample. Two-hundred-twenty-seven Dutch students from the University of Amsterdam were recruited via an online platform (www.test.uva.nl) and participated in exchange for course credits (see Table 3.1 for further sample details).

Design, materials, and procedure. Study 3.6 employed the same experimental design as Study 3.5. In Study 3.6 however participants viewed five artworks that were made at the beginning of the 20th century and they were asked to evaluate the last one and the artist who made it (focal). The artworks were male portraits with the model facing left. We edited the original artworks to be greyscale, and controlled for luminosity and size in order to standardize the artworks' visual features (see Appendix 3.F).

After participants had viewed each artwork, we measured their perceptions of the artist's willpower, using an adjusted version of the volitional capacity scale (Magee, 2009). This scale's focus on interpersonal relations corresponds to the current study's level of analysis. This 6-item scale includes items such as "To what extent ... does this artist feel free to do what s/he wants in his relations with others?" and the reverse-scored "... this artist's behavior is driven by the wishes of other people?" ($\alpha = .91$), which were answered on 7-point Likert scales ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Participants then reported on the artist's perceived influence by completing the same scale we used in Studies 3.1, 3.3, 3.4, and 3.5 ($\alpha = .85$). Next we evaluated purchase intention using the same item we used in Studies 2a and 2b. Furthermore, we recorded the time participants spent looking at the focal artwork, which was included as an unobtrusive measure of participants' attention to the artwork (Palmer et al., 2013). In the end, we asked participants how distinct they thought the style of the focal artwork was compared to the style of the other artworks, which we used as a manipulation check of interpersonal deviance. The perceived interpersonal deviance item was answered on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

Results

In a series of 2-way ANOVAs we tested the effects of artist's interpersonal deviance and contemporaries' style on interpersonal deviance, perceived influence, purchase intention, visual attention, and perceived willpower. We followed up each ANOVA with simple effects analyses to investigate the effect of contemporaries' style on the various measures of impact of deviant and non-deviant artists. Even though we had no predictions about the main effects of contemporaries' style, we report below whether such effects were observed on each measure and we describe them in the Supplementary Material Chapter 3. Descriptives for interpersonal deviance, perceived influence, purchase intention, visual attention, and perceived willpower are displayed in Table 3.6, and test statistics are reported in text below.

Perceived interpersonal deviance (manipulation check). As expected, there was a main effect of artist's interpersonal deviance, with deviant artists' style being perceived as more distinct from their contemporaries' style as compared to non-deviant artists' style, $F(1, 223) = 78.48, p < .001, \eta_p^2 = .26$. There was no main effect of contemporaries' style, $F(1, 223) = 1.51, p = .221, \eta_p^2 = .01$. There was no interaction between artist's interpersonal deviance and contemporaries' style, which indicated that the manipulation of artist's interpersonal deviance was orthogonal to the manipulation of contemporaries' style, $F(1, 223) = 0.79, p = .377, \eta_p^2 < .01$.

Perceived influence. There was the predicted main effect of artist's interpersonal deviance, with artists who employed a deviant style being perceived as more influential than artists who employed a non-deviant style, $F(1, 223) = 8.01, p = .005, \eta_p^2 = .04$. There was also an unpredicted main effect of contemporaries' style on perceived influence, $F(1, 223) = 3.92, p$

= .049, $\eta_p^2 = .02$ (see Supplementary Material Chapter 3). More importantly, we found the predicted interaction effect between artist's interpersonal deviance and contemporaries' style, $F(1, 223) = 49.08, p < .001, \eta_p^2 = .18$. Probing the interaction revealed that artists who deviated from a predominant realistic style by using non-realistic means of expression were seen as more influential than artists who deviated from a predominant non-realistic style by using realistic means of expression, $F(1, 223) = 40.93, p < .001, \eta_p^2 = .18$. Artists who followed a predominant non-realistic style were also seen as more influential than artists who followed a predominant realistic style, $F(1, 223) = 13.12, p < .001, \eta_p^2 = .06$ (see top left panel of Figure 3.7).

Purchase intention. There was a main effect of artist's interpersonal deviance, which showed that participants were more willing to purchase products that depict artworks made by deviant artists at than products that depict artworks made by non-deviant artists, $F(1, 223) = 8.38, p = .004, \eta_p^2 = .04$. There was no main effect of contemporaries' style, $F(1, 223) = 0.67, p = .415, \eta_p^2 < .01$. We also observed the predicted interaction between artist's interpersonal deviance and contemporaries' style, $F(1, 223) = 16.31, p < .001, \eta_p^2 = .07$. Probing the interaction revealed that participants were more willing to purchase products depicting work made by artists who deviated in the direction of non-realism than products depicting work made by artists who deviated in the direction of realism, $F(1, 223) = 5.43, p = .021, \eta_p^2 = .02$. Participants were also more willing to purchase products depicting work made by artists who followed a predominant non-realistic style than products depicting work made by artists who followed a predominant realistic style, $F(1, 223) = 13.12, p < .001, \eta_p^2 = .06$ (see top right panel of Figure 3.7).

Visual attention. Because the distribution of visual attention scores was positively skewed (skewness = 5.66, $SE = 0.16$), we applied a logarithmic transformation that resulted in a normalized distribution (skewness = 0.31, $SE = 0.16$). ANOVA showed a marginal main effect of artist's interpersonal deviance, which indicates that artworks made by deviant artists tended to attract more attention than artworks made by non-deviant artists, $F(1, 223) = 2.86, p = .092, \eta_p^2 = .01$. It also showed an unpredicted main effect of contemporaries' style, $F(1, 223) = 8.05, p = .005, \eta_p^2 = .04$ (see Supplementary Material Chapter 3). More importantly, results showed the predicted interaction between artist's interpersonal deviance and contemporaries' style, $F(1, 223) = 5.77, p = .017, \eta_p^2 = .03$. Simple effects analyses revealed that individuals looked longer at artworks made by artists who deviated towards non-realism than at artworks made by artists who deviated towards realism, $F(1, 223) = 13.90, p < .001, \eta_p^2 = .06$. The time people spent looking at artworks made by artists who followed a predominant realistic style did not differ from the time people spent looking at artworks made by artists who followed a predominant non-realistic style, $F(1, 223) = 0.07, p = .791, \eta_p^2 < .01$ (see bottom left panel of Figure 3.7).

Perceived willpower. There was a main effect of artist's interpersonal deviance, which showed that people inferred stronger willpower for artists who deviated from the predominant style than artists who followed the predominant style, $F(1, 223) = 6.40, p = .012, \eta_p^2 = .03$. There was no main effect of contemporaries' style on perceived willpower, $F(1, 223) < 0.01, p = .976, \eta_p^2 < .01$. As predicted, we did find an interaction effect between artist's interpersonal deviance and contemporaries' style, $F(1, 223) = 101.23, p < .001, \eta_p^2 = .31$. Probing the interaction revealed that individuals regarded artists who deviated towards non-realism as having stronger willpower than artists who deviated towards realism, $F(1, 223) = 51.45, p < .001, \eta_p^2 = .23$. Individuals further considered artists who followed a predominant non-realistic style as having stronger willpower than artists who followed a predominant realistic style, $F(1, 223) = 51.50, p < .001, \eta_p^2 = .23$ (see bottom right panel of Figure 3.7).

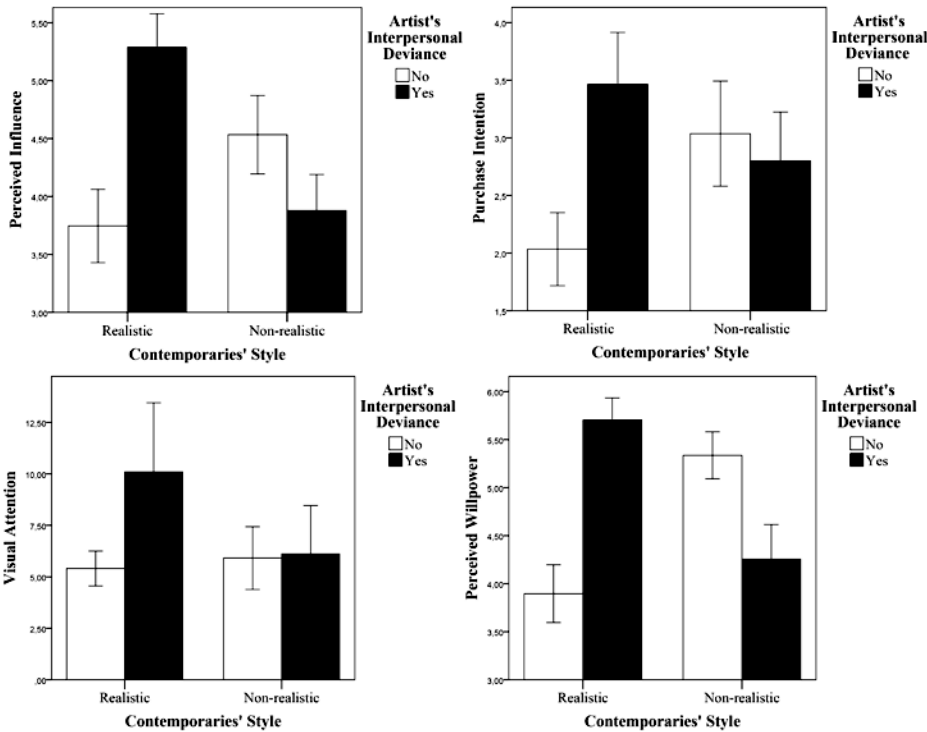


Figure 3.7. Perceived influence, purchase intention, visual attention, and perceived willpower as a function of artist's interpersonal deviance and contemporaries' style in Study 3.6. Bars represent means with their associated standard errors.

Moderated mediation. Finally, we performed moderated mediation analyses to test whether the interactive effect of artist's interpersonal deviance and contemporaries' style on each dependent variable (i.e., perceived influence, purchase intention, and visual attention) was mediated by perceived willpower. We specified three bootstrapped moderated mediation models with contemporaries' style as predictor, artist's interpersonal deviance as moderator, perceived willpower as mediator, and perceived influence (Model A), purchase intention (Model B), and visual attention (Model C) as outcome variables that were tested sequentially (Hayes, 2012; Model 7 in PROCESS®, 1000 reiterations). Contemporaries' style was coded as -1 for realistic and 1 for non-realistic, artist's interpersonal deviance was coded as -1 for non-deviant and 1 for deviant, and perceived willpower was centered at its mean. All three models were significant, providing evidence for moderated mediation (Model A: point estimate = -0.59, $SE = 0.12$, CI [-0.83, -0.36]; Model B: point estimate = -0.60, $SE = 0.13$, CI [-0.87, -0.36]; and Model C: point estimate = -0.06, $SE = 0.03$, CI [-0.12, -0.02]). Analysis of the simple effects indicated that, compared to artists who deviated in the direction of realism, artists who deviated in the direction of non-realism were perceived as having stronger willpower, and this perception in turn increased the artist's perceived influence (point estimate = -0.29, $SE = 0.07$, 95% CI [-0.44, -0.17]), purchase intentions for the artist's work (point estimate = -0.30, $SE = 0.07$, 95% CI [-0.45, -0.17]), and attention paid to the artist's work (point estimate = -0.03, $SE = 0.01$, 95% CI [-0.07, -0.01]). Artists who followed a dominant non-realistic style were also thought of

Table 3.6

Descriptives of Perceived Influence, Perceived Interpersonal Deviance, Purchase Intention, Visual Attention, and Perceived Willpower across Conditions of Artist's Interpersonal Deviance and Contemporaries' Style in Studies 3.5 and 3.6

	Artist's interpersonal deviance: no		Artist's interpersonal deviance: yes		Total ^a
	<i>M</i> (<i>SD</i>)	95% CI	<i>M</i> (<i>SD</i>)	95% CI	
Study 3.5					
Perceived influence					
Contemporaries' style: realistic	4.08 (1.13)	[3.71, 4.46]	5.06 (1.19)	[4.69, 5.43]	4.57 (1.26)
Contemporaries' style: non-realistic	4.38 (1.39)	[4.00, 4.76]	4.34 (1.27)	[3.96, 4.72]	4.36 (1.32)
Total ^b	4.23 (1.27)	[3.97, 4.50]	4.71 (1.27)	[4.44, 4.97]	4.47 (1.29)
Study 3.6					
Perceived interpersonal deviance					
Contemporaries' style: realistic	3.92 (1.67)	[3.51, 4.32]	5.71 (1.31)	[5.30, 6.11]	4.80 (1.75)
Contemporaries' style: non-realistic	3.60 (1.68)	[3.18, 4.02]	5.51 (1.60)	[5.09, 5.93]	4.55 (1.89)
Total ^b	3.76 (1.68)	[3.47, 4.05]	5.61 (1.45)	[5.32, 5.90]	4.68 (1.82)
Perceived influence					
Contemporaries' style: realistic	3.75 (1.21)	[3.44, 4.05]	5.29 (1.10)	[4.98, 5.59]	4.51 (1.39)
Contemporaries' style: non-realistic	4.53 (1.25)	[3.57, 4.19]	3.88 (1.15)	[3.57, 4.19]	4.20 (1.24)
Total ^b	4.13 (1.29)	[3.92, 4.36]	4.60 (1.33)	[4.36, 4.80]	4.36 (1.33)
Purchase intention					
Contemporaries' style: realistic	2.03 (1.22)	[1.53, 2.20]	3.47 (1.71)	[2.65, 3.32]	2.74 (1.64)
Contemporaries' style: non-realistic	3.04 (1.69)	[2.12, 2.90]	2.80 (1.57)	[2.13, 2.82]	2.92 (1.63)
Total ^b	2.52 (1.54)	[2.25, 2.82]	3.14 (1.67)	[2.84, 3.42]	2.83 (1.63)
Visual attention					
Contemporaries' style: realistic	0.66 (0.26)	[0.58, 0.74]	0.84 (0.36)	[0.75, 0.92]	0.75 (0.32)
Contemporaries' style: non-realistic	0.64 (0.33)	[0.55, 0.73]	0.61 (0.36)	[0.52, 0.70]	0.62 (0.35)
Total ^b	0.65 (0.29)	[0.59, 0.71]	0.73 (0.38)	[0.66, 0.79]	0.69 (0.34)
Perceived willpower					
Contemporaries' style: realistic	3.90 (1.15)	[3.62, 4.17]	5.70 (0.87)	[5.42, 5.98]	4.79 (1.37)
Contemporaries' style: non-realistic	5.34 (0.90)	[5.05, 5.62]	4.25 (1.33)	[3.97, 4.54]	4.80 (1.26)
Total ^b	4.59 (1.26)	[4.42, 4.82]	5.00 (1.33)	[4.78, 5.18]	4.79 (1.31)

Note. CI = confidence interval.

^a Average descriptives of artist's interpersonal deviance conditions

^b Average descriptives of contemporaries' style conditions

as having stronger willpower than artists who followed a dominant realistic style, and this inference in turn increased the artist's perceived influence (point estimate = 0.29, SE = 0.07, 95% CI [0.17, 0.44]), purchase intentions for the artist's work (point estimate = 0.30, SE = 0.07, 95% CI [0.16, 0.45]), and attention paid to the artist's work (point estimate = 0.03, SE = 0.01, 95% CI [0.01, 0.06]).

Discussion

The results of the current study support the interpersonal deviance hypothesis, which holds that artists who deviate from their contemporaries' style gain greater impact than artists who follow the predominant style, especially when artists break away from a predominant realistic style by showing non-realistic forms of expression. The mediation analyses further revealed an underlying mechanism that accounts for these effects. Artists who deviate from their contemporaries' style using non-realistic means of expression are perceived to have stronger willpower, which in turn enhances individuals' influence perceptions, willingness to purchase the artists' products, and attention to the artist's work. These findings were robust across three measures of artistic impact, including an unobtrusive behavioral measure of attention.

Meta-analytic Synthesis of Findings

Even though our studies provide rather consistent support for our hypotheses, a few effects were only marginally significant. We therefore carried out meta-analyses that synthesized the findings of different studies to provide more reliable estimates of the realism deviance main effect, the intrapersonal deviance main effect, and the interpersonal deviance main and interaction effects. The intrapersonal deviance interaction effect was not meta-analyzed since it was only tested in one study. Because some studies included more than one measures of artistic impact (i.e., Studies 3.3 and 3.6), we standardized the scores of each study's variables to enable combining them into a single estimate of artistic impact per study. The use of composite estimates was necessary because in meta-analysis each effect size estimate has to be based on a unique sample, which implies that only one effect size estimate per study can be included (Raudenbush, 2009). Furthermore, we used standardized regression coefficients as effect size estimates because they could be computed in all studies. We used a random-effects approach because of the variety of methodologies used across studies. Meta-analysis was performed using Comprehensive Meta-Analysis® (Borenstein, Hedges, Higgins, & Rothstein, 2009).

Meta-analytic results are commonly presented in a forest plot that depicts both the individual effects observed in each study and the overall effects estimated across studies (see Figures 3.8 to 3.11). The left part of the figure presents the standardized regression coefficients (beta) that express the difference between the conditions under comparison (e.g., Condition A vs. Condition B) as individual and overall effects. The right part of the figure graphically presents these effects with their confidence intervals within a range of $\pm 1 SD$ and relative to a reference line set at 0. The individual effects are represented with an empty square, and the overall effects are represented with a solid diamond. When the confidence intervals of an effect fall on the left side of the reference line, participants in Condition A scored higher on perceived artistic impact than participants in Condition B; when they fall on the right side, participants in Condition A scored lower than participants in Condition B; and when they fall in between, there was no significant difference in artistic impact scores between Conditions A and B.

Realism Deviance Main Effect

According to the realism deviance hypothesis, artists who employ a non-realistic style have more impact than artists who employ a realistic style. Support for the realism deviance effect is derived from comparing conditions that included only realistic artworks to conditions that included only non-realistic artworks. This comparison was central to Study 3.1, but it can also be computed in other studies that included conditions with only realistic or non-realistic artworks, that is, Studies 3.3, 3.4, 3.5, and 3.6. Although Studies 3.2a and 3.2b also contained conditions of realistic and non-realistic artworks, they could not be included in this meta-analysis because they used a within-subjects design and observations in this study were therefore not independent (Raudenbush, 2009). The test of heterogeneity showed that the effect of artist's style on artistic impact did not significantly vary across studies, $Q(4) = 6.38$, $p = .172$. Furthermore, the overall statistics showed that non-realistic style artists were considered more impactful than realistic style artists, $\beta = 0.19$, $SE = 0.06$, $Z = 3.43$, $p = .001$, 95% CI [0.08, 0.30] (see Figure 3.8).

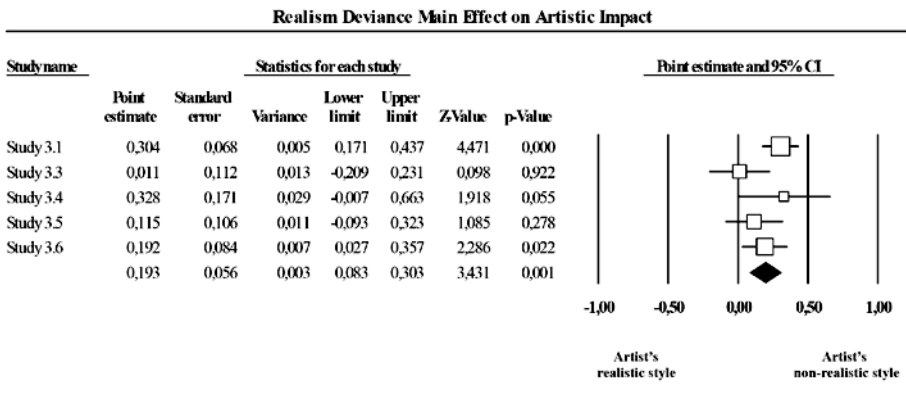


Figure 3.8. Artistic impact as a function of artist's style (realistic vs. non-realistic) across Studies 3.1 and 3.3 to 3.6. CI stands for confidence interval.

Intrapersonal Deviance Main Effect

According to the intrapersonal deviance hypothesis, artists who deviate from their previous means of expression by adopting distinct artistic styles are considered more impactful than artists who consistently follow a single style within their career. The intrapersonal deviance main effect was tested in Studies 3.3 and 3.4, which we combined in the current meta-analysis. The heterogeneity tests showed that the effect of artist's intrapersonal deviance on artistic impact did not significantly vary across studies, $Q(1) = 0.02$, $p = .891$. The overall statistics showed that artists who deviated from their previous style were considered more impactful than artists who consistently followed a single style within their career, $\beta = 0.27$, $SE = 0.08$, $Z = 3.61$, $p < .001$, 95% CI [0.12, 0.42] (see Figure 3.9).

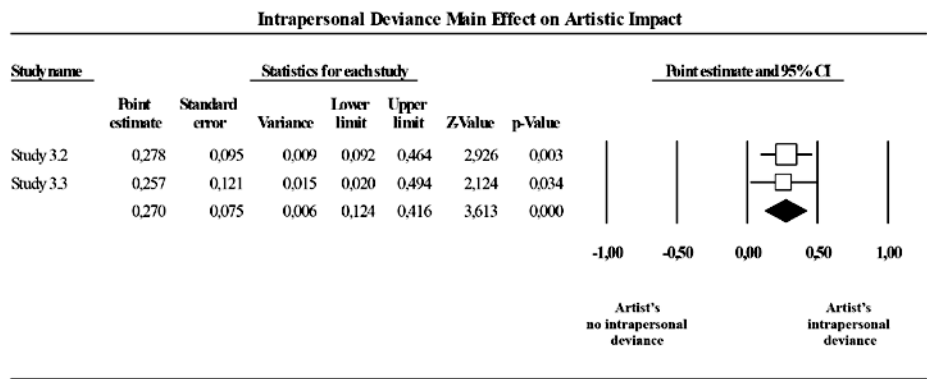


Figure 3.9. Artistic impact as a function of artist's intrapersonal deviance (no deviance vs. deviance) across Studies 3.3 and 3.4. CI stands for confidence interval.

Interpersonal Deviance Main and Interaction Effects

According to the interpersonal deviance hypothesis, artists who deviate from the style adopted by their contemporaries have more impact than artists who follow their contemporaries' style. The interpersonal deviance main effect was tested in Studies 3.5 and 3.6, which we combined in the current meta-analysis. The test of heterogeneity showed that the effect of artist's interpersonal deviance on artistic impact did not significantly vary across studies, $Q(1)=0.09, p=.764$. The overall statistics showed that artists who deviated from their contemporaries' style were considered more impactful than artists who followed their contemporaries' style, $\beta = 0.17, SE = 0.05, Z = 3.47, p < .001, 95\% \text{ CI } [0.07, 0.26]$ (see Figure 3.10).

In light of the progressive development of artistic movements (Tennie et al., 2009), we expected that the interpersonal deviance effect would be more pronounced when artists deviate from a predominant realistic style by adopting non-realistic means of expression than when they deviate from a predominant non-realistic style by adopting realistic means of expression (interpersonal deviance interaction effect). This effect was tested in another meta-analysis that examined the impact of artists who followed or deviated from a predominant realistic or non-realistic style (as determined by their contemporaries' style). This meta-analytic model specified artist's interpersonal deviance as categorical moderator (non-deviant vs. deviant). As predicted, the analysis showed that perceived artistic impact differed depending on whether the artist followed or deviated from their contemporaries' style, $Q(1) = 26.04, p < .001$. The pattern of the moderation indicated that artists who followed their contemporaries' style were considered more impactful when the predominant style was non-realistic rather than realistic, $\beta = 0.16, SE = 0.07, 95\% \text{ CI } [0.03, 0.29], Z = 2.47, p = .014$. More importantly, artists who deviated from their contemporaries' style were considered more impactful when the predominant style was realistic rather than non-realistic, $\beta = -0.32, SE = 0.07, 95\% \text{ CI } [-0.46, -0.19], Z = -4.71, p < .001$ (see Figure 3.11). Thus, deviance from the contemporaries' style conferred greater impact to artists who deviated towards non-realism than artists who deviated towards realism.

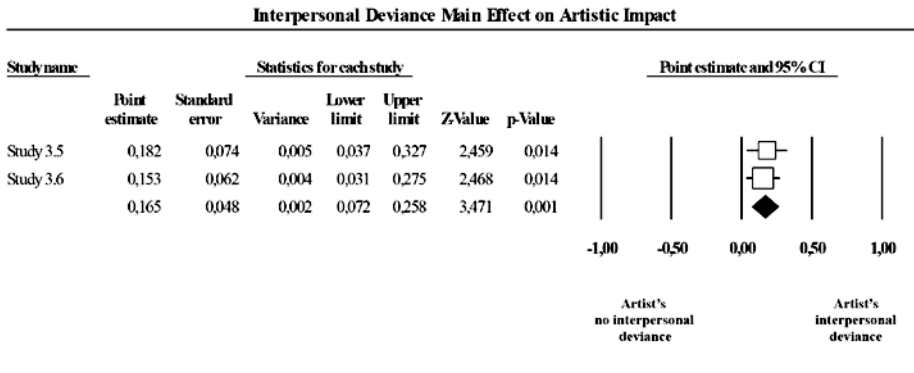


Figure 3.10. Artistic impact as a function of artist's interpersonal deviance (no deviance vs. deviance) across Studies 3.5 and 3.6. CI stands for confidence interval.

General Discussion

The current research investigated whether deviating from the norms in the world of art enhances an artist's potential to rise to fame. The results of six studies demonstrate that various forms of artistic deviance influence perceived artistic impact. In line with our hypotheses, (1) artists who make non-realistic artworks are perceived as having higher impact than artists who make realistic works (realism deviance); (2) artists who deviate from their previous artistic style are considered more impactful than artists who consistently follow a single style within their career, especially when the artistic path of deviant artists features a transition from a realistic to a non-realistic style (intrapersonal deviance); and (3) artists who deviated from their contemporaries' style gain greater impact than artists who follow their contemporaries' style, in particular when artists deviate from a predominant realistic style by adopting non-realistic means of expression (interpersonal deviance).

Contributions and Implications

Our findings make a number of contributions to the literature. First, the mediation analyses in Study 3.1 showed that deviant artworks enhance an artist's impact because they are considered more unconventional rather than more attractive. Apparently, the belief that an artwork is beautiful is not a sine-qua-non condition for beholders' aesthetic appreciation (Turner & Silvia, 2006). Our research shows that the unconventionality of the artwork is actually more decisive for people's aesthetic preferences. This finding builds upon and enriches previous research that aims to explain aesthetic preferences (Heinrichs & Cupchik, 1985; Leder, Belke, Oeberst, & Augustin, 2004; Lindell & Mueller, 2011) and opens up new research directions by highlighting the important role of beholders' perception of an artwork in terms of unconventionality. This finding is also consistent with visual perception theories that consider the resolution of expectancy violations a crucial aspect of aesthetic pleasure (Huron, 2006; Van de Cruys & Wagemans, 2011) as well as philosophical theories of aesthetic appreciation, which maintain that the contrast between the negative state of obstruction and the positive state of resolution is the working ingredient of catharsis, that is, the purification of emotions through art (Aristotle, trans. 1965).

Interpersonal Deviance Interaction Effect on Artistic Impact

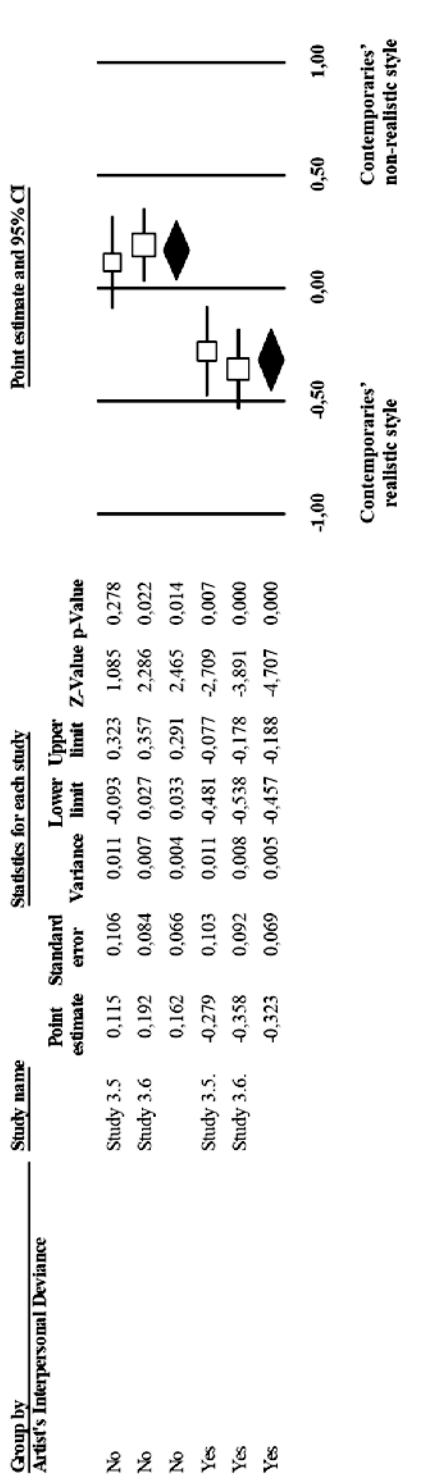


Figure 3.11. Artistic impact as a function of artist's interpersonal deviance (no deviance vs. deviance) and contemporaries' style (realistic vs. non-realistic) across Studies 3.4 and 3.6. CI stands for confidence interval.

Second, we showed that artists who break with conventions are more likely to flourish because the public perceives their actions to be intentional. The role of intentionality was established by the mediation analyses in Studies 3.4 and 3.6. Study 3.4 demonstrated that unconventional artists who produced realistic style works at an earlier stage of their career are perceived to have stronger willpower and thereby greater impact potential than unconventional artists with no previous realistic style works. Earlier realistic style artworks irrefutably prove that artists' later non-realistic work was not a product of incompetence but an intentional choice to shape their personal artistic path. Study 3.6 showed that artists who deviate from their contemporaries' style are also thought of as having stronger willpower and therefore greater impact than artists who follow their contemporaries' style. Artists who are impervious to external influences evince that their style choice is dictated by their intention to move art forward by introducing innovative means of expression. These findings are consistent with research on the perception of deviant social targets who were considered more powerful because of their perceived volitional capacity (Van Kleef et al., 2011) or autonomy (Bellezza et al., 2014).

Third, there is ample research on the potential of social movements to gain influence, but only limited research on the potential of artistic movements to gain ground (but see Inglis, 1996 and Lena & Pachucki, 2013). It is currently unknown whether common social influence mechanisms that have been widely investigated in social psychology and marketing research generalize to the domain of art appreciation. Our research provides evidence that the accumulation of innovation credits through conformity is important in art too (Hollander, 1958). Future research could explore the application of social influence theories in the field of art by taking into account that art appreciation is governed by a unique set of rules that relate to bio-cultural evolution, social and cognitive perceptual processes, and the art-historical context (Bullot & Reber, 2013). In fact, our research points out how different aspects of the artistic production, such as the style of the artwork and the evolution of styles within an artist's career or between artistic eras, interact to explain artistic impact.

Our research also has important practical implications. Although breaking the rules in art seems to be the new rule (Gombrich, 1995), our research revealed two crucial boundary conditions to the effectiveness of artistic deviance in terms of gaining impact. The first one is that artists need to demonstrate that they can also follow the rules early on in their career. When people evaluate an artwork, they are not only interested in it as an end product, but also in the process that led to it. This indicates that people consider the artists' intentions in order to understand how the artist transitioned from one stage to the other. This insight can inform art education programs, which should emphasize not only the development of a distinct style but also the acquisition of traditional techniques. The second condition is that artists need to differentiate themselves from others so that their distinct style is seen as the evolution of previously existing artwork styles. A distinct style that has been employed in the past is seen as backward movement and is appreciated less. This implies that people want to see how an artist's work contributes to the advancement of art in time. Deviant artists could thus benefit from pitching their work as a linkage between past and future artistic trends.

Strengths, Limitations, and Future Directions

The current collection of studies tells a comprehensive and coherent story. We set forth a parsimonious research model that delineated the effects of deviance on artistic impact at different levels of analysis, in which willpower was distinguished as reliable underlying mechanism. Across six studies, we demonstrated consistent effects of the artistic style of the

artwork, the previous work of the artist, and the context where an artwork appears on three aspects of artistic impact using different operationalizations of deviance. Our effects were tested in a large sample that spanned a broad age range and included people from diverse educational backgrounds. Our conclusions were corroborated in a series of meta-analyses that proved the robustness of the overall effects as well as the homogeneity of the effects of the individual studies.

Despite the strengths of our research, one may be concerned about the fact that in our studies we used real-world paintings rather than standardized stimuli. Even though standardized stimuli allow greater control over confounding factors, we opted for real-world stimuli to increase the ecological validity of our stimulus set. This approach addresses one of the main criticisms of empirical aesthetics, namely, that research on aesthetic experiences is often reduced to the study of visual stimuli devoid of artistic meaning and historical context (Currie, 2003; Gombrich, 2000). Our approach is also substantiated by the mediation analyses in Study 3.1, which demonstrated that non-realistic style artworks are perceived to be more unconventional and thus constitute an appropriate manipulation of realism deviance. Additionally, the results of Study 3.5, which involved exact copies of original artworks, were replicated in Study 3.6, where the most prominent aspects of the artworks were standardized. We thus conclude that the artwork stimuli we used are both ecologically and methodologically valid.

Another consideration may stem from the belief that artists often lead their technique to perfection as they age, when they usually produce their most unconventional pieces too. This implies that observers might have evaluated unconventional pieces as more impactful because they considered the artist's style more mature at a later stage rather than more deviant. However, this inference could only be made by observers who were familiar with an artist's different periods. The finding that the focal effects did not change after controlling for art familiarity in Studies 3.3, 3.4, and 3.6, and after excluding participants who were familiar with the artist in Study 3.2b speaks against an interpretation of our results in terms of style maturity. Furthermore, in Studies 3.2a and 3.2b the transition-phase artworks were not considered more impactful than the academic-period artworks, even though the artist could be considered more mature at his transitional phase because it succeeded his academic phase. Rather, it was only the most unconventional artworks, the ones made in the artist's idiosyncratic phase, that inspired greater perceptions of impact. We are therefore confident that the effects on artistic impact observed in the current research can be attributed to style deviance. Future research could investigate the role of style maturity as an additional factor that explains individuals' perceptions of artistic impact.

Future studies could further examine whether our model generalizes to other types of visual arts, such as photography and filmmaking, or to performing arts, such as dance and music (cf. Wiersema et al., 2012). For example, it would be interesting to investigate whether experimental music genres, like jazz and contemporary classical music, would be appreciated more when the audience becomes aware that they are derived from more conventional music genres, that is, blues and classical music, respectively (Burkholder, Grout, & Palisca, 2006).

Future research could also investigate the artists' motives to deviate from or follow the prevalent artistic current and how these motives are shaped by the values of the broader cultural context. For instance, people in Western cultures actively seek to be unique, whereas people in East Asian cultures prefer to conform to normative standards (Kim & Markus, 1999), which may explain why East Asian cultures are more likely to foster incremental innovations,

whereas Western cultures encourage more breakthrough ones (Herbig & Palumbo, 1996). Furthermore, a recent cross-cultural study showed that people in individualistic cultures perceive individuals who break the rules as more powerful than individuals who follow the rules, whereas people in collectivistic cultures perceive norm violators to be less powerful than norm followers (Stamkou, Van Kleef, Homan, Gelfand, Van de Vijver, ... & Lee, 2016). It may be that the way people perceive individuals who deviate from the norm and the cultural values people endorse could account for the evolution of art movements in different parts of the world. Specifically, artists in East Asia might have been driven to learn basic skills through diligent imitation of old masters, whereas artists in the Western world might have been driven to produce original works, which may explain the rapid succession of different art movements in the West.

Conclusion

Although the popular notion "there is no accounting for taste" may be perennial, the current research indicates that people's aesthetic judgments are reliably predicted by the degree to which and the way in which artists' works deviate from prevailing artistic norms. We demonstrated that whether artists deviate from their previous style and the conventions of their era may determine the extent to which their artistic ideas persist or perish. The early works of Claude Monet and his associates prove that they were adept at producing a realistic representation of the world, while their impressionistic works attest that they were determined to break away from the iron cage of realistic art forms embraced by their contemporaries. The art critic who coined the term "Impressionists" to satirically refer to these deviant artists could have never imagined that their artistic work and vision would echo down the ages.

Appendix 3.A

Artworks Used in the Realistic Style (left column) and Non-realistic Style (right column)
Conditions of Study 3.1 Listed per Artwork Genre (from top to bottom: portraits, flowers,
animals, still lives, and landscapes)



Appendix 3.B

Artworks Used in the Academic-period (top row), Transition-period (middle row), and
Idiosyncratic-period (bottom row) Conditions of Studies 3.2a and 3.2b



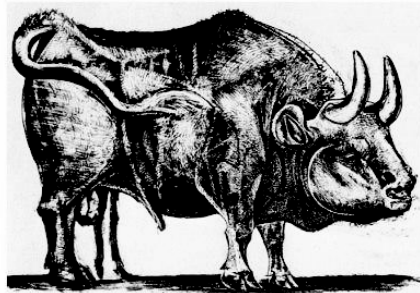
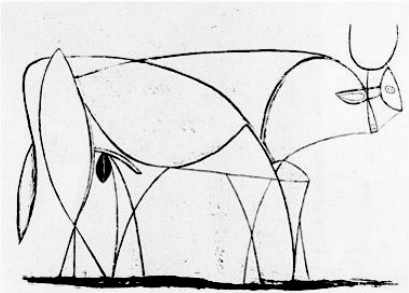
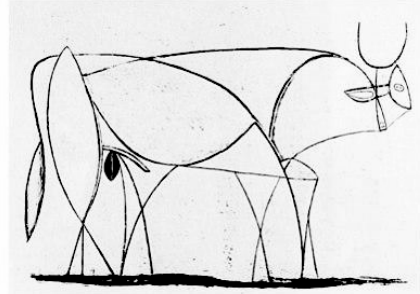
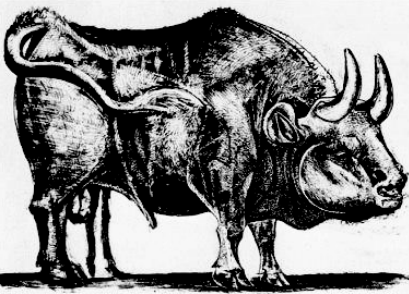
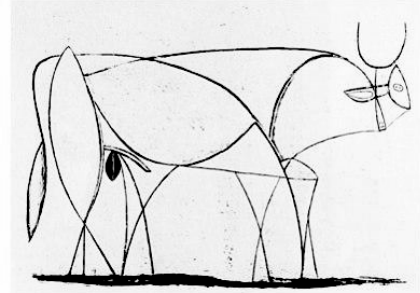
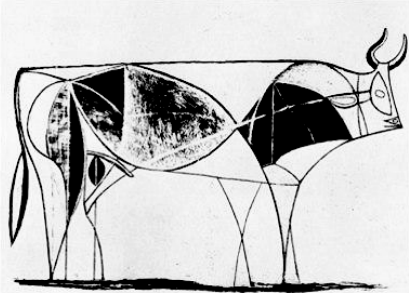
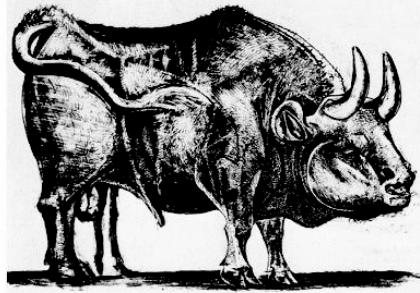
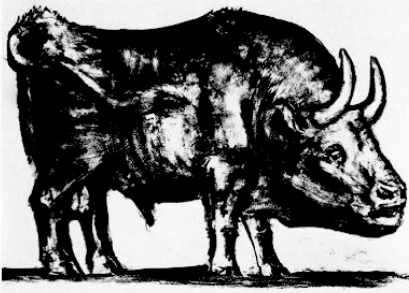
Appendix 3.C

Artworks Used in Study 3.3 Listed per Condition: No Intrapersonal Deviance – Only Realistic Style (top row), No Intrapersonal Deviance – Only Non-realistic Style (middle row), and Intrapersonal Deviance – Mixed Style (bottom row)



Appendix 3.D

Artworks Used in Study 3.4 Listed per Condition: No Intrapersonal Deviance/ Realistic Early Style (top row), No Intrapersonal Deviance/ Non-realistic Early Style (upper middle row), Intrapersonal Deviance/ Realistic Early Style (lower middle row), and Intrapersonal Deviance/ Non-realistic Early Style (bottom row)



Appendix 3.E

Artworks Used in Study 3.5 Listed per Condition: No Interpersonal Deviance/ Contemporaries' Realistic Style (top row), No Interpersonal Deviance/ Contemporaries' Non-realistic Style (upper middle row), Interpersonal Deviance/ Contemporaries' Realistic Style (lower middle row), Interpersonal Deviance/ Contemporaries' Non-realistic Style (bottom row)



Note. The focal artwork appears in the middle position of each row.

Appendix 3.F

Artworks Used in Study 3.6 Listed per Condition: No Interpersonal Deviance/ Contemporaries' Realistic Style (top row), No Interpersonal Deviance/ Contemporaries' Non-realistic Style (upper middle row), Interpersonal Deviance/ Contemporaries' Realistic Style (lower middle row), Interpersonal Deviance/ Contemporaries' Non-realistic Style (bottom row)



Note. The focal artwork appears at the far right position of each row

CHAPTER 4

Those Who Stand On Top Block Norm Violators From Rising Up

This chapter is based on Stamkou, E., Van Kleef, G. A., Homan, A. C., & Galinsky, A. D. (2016). How norm violations shape social hierarchies: Those who stand on top block norm violators from rising up. *Group Processes and Intergroup Relations*, 19, 608–629.
doi: 10.1177/1368430216641305

Social norms create order and stability in societies and play a pivotal role in regulating group processes. As a result norm violations are frowned upon because they can thwart order and harm group functioning (Feldman, 1984). However, norm violators appear powerful in the eyes of observers because of their apparent autonomy and free will (Stamkou & Van Kleef, 2014). We addressed this paradox by examining whether the tendency to grant power to norm violators is moderated by an observer's hierarchical position. We draw on theories of hierarchy maintenance and power motivation to propose that responses to an actor's norm violating behavior depend on the observer's relative position in the hierarchy (i.e., their verticality).

Verticality can be defined as having or striving for control over others or having access to valued resources (Hall, Coats, & Smith LeBeau, 2005). Because norm violations threaten the status quo that benefits those higher up in social collectives, we hypothesized that individuals in a higher hierarchical position would show a lower tendency to grant power to norm violators rather than to norm abiders compared to individuals in a lower hierarchical position. We tested this idea in 14 studies that involved a variety of common operational definitions of observers' verticality, such as power, status, and dominance (Magee & Galinsky, 2008), and a range of every-day norm violations (Turiel, 1983).⁴ Below, we elaborate on the function of norms and reactions to norm violations, and then we delineate why individuals' verticality may relate to their tendency to maintain the status quo and their readiness to support norm followers over norm violators.

Social Norms and Reactions to Norm Violations

Social norms help regulate societies and keep them orderly. They can be defined as principles that are consensually accepted by members of a group and that guide and constrain behavior to generate proper and acceptable conduct (Cialdini & Trost, 1998). Norms facilitate the functioning of individuals across multiple levels. On the interpersonal level, they prevent one from embarrassment and increase the predictability of others' behavior (Cialdini & Goldstein, 2004). On the group level, they give expression to the group's central values, coordinate disparate activities, and ensure group survival (Kiesler & Kiesler, 1970). On the society level, they regulate expectations regarding who is to carry out what types of activities in certain hierarchical systems (Feldman, 1984). Consequently, following norms and living up to expectations help preserve the social order. In doing so, they help protect the hierarchical status quo. But how do norm violations shape social hierarchies?

Existing theoretical perspectives and empirical findings are inconsistent with regards to how people react to norm violations (Van Kleef, Wanders, Stamkou, & Homan, 2015). On the one hand, research shows that norm violations trigger negative affective and behavioral reactions in observers. For instance, norm violations evoke anger and blame (Helweg-Larsen & LoMonaco, 2008; Kam & Bond, 2009; Ohbuchi et al., 2004). Additionally, they invite various types of sanctions and interventions across a wide range of cultures (Gelfand et al., 2011). These reactions suggest that violating norms is perceived as disruptive and harmful to the group and society at large, and that norm abidance is preferred. Indeed, research indicates that members who follow the norms of a group are strongly endorsed and likely to emerge as leaders (Anderson & Kilduff, 2009; Feldman, 1984; Hogg, 2001; Platow & van Knippenberg, 2001; van Knippenberg & van Knippenberg, 2005). Similarly, Kirkpatrick and Locke (1991) have

⁴ Conventional norm violations are based on general consensus (e.g., being silent in a quiet area, arriving on time, speaking in turns) as opposed to legal offenses that are based on criminal justice (e.g., not causing anyone bodily harm).

proposed that individuals who show high integrity by adhering to the rules are more likely to emerge as leaders, an argument that is consistent with the finding that leaders who show a lack of integrity are more likely to fall from grace and lose their status (Yukl, 2010). Individuals who follow or embody the norms of a group are considered more committed to the group's ideals and thereby more trustworthy (van Knippenberg, 2011). Furthermore, norms, like hierarchy itself, create a clear and well-defined paradigm of behavior, which reduces uncertainty (Friesen, Kay, Eibach, & Galinsky, 2014). Given that uncertainty reduction is a fundamental human motive, members who observe the rules should be viewed in a positive light and those who break the rules should be degraded (Hogg, 2000).

On the other hand, despite these various negative reactions, norm violations can also bring about positive outcomes for the transgressor. One set of studies showed that individuals who violated prevailing norms were perceived as more powerful than individuals who behaved according to the norms (Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). Another series of studies showed that individuals who entered a boutique wearing gym clothes rather than appropriate attire or who attended a black tie event wearing a red rather than a black tie were ascribed higher status (Bellezza, Gino, & Keinan, 2014). The reason why violating a norm fuels perceptions of power is because it implies that one is autonomous and has high volitional capacity (Stamkou & Van Kleef, 2014).

In addition to inspiring perceptions of power, norm violations may fuel power affordance, the process of advancing another person's position in the hierarchy by granting them power. Indeed, recent studies have shown that norm violators get afforded more power as long as the norm violation benefits observers (Papa, Phillips, & Robertson, 2014; Van Kleef, Homan, Finkenauer, Gündemir, & Heerdink, 2012). For instance, a confederate who stole coffee from the experimenter's desk was afforded more power than a confederate who took coffee upon invitation, but only when he also offered coffee to the participant (Van Kleef et al., 2012). In keeping with the finding that the observer's personal involvement modulates reactions to norm violators, other studies showed that observers are more likely to express their disapproval to the degree that the deviant behavior affects them personally (Brauer & Checkrout, 2005; Checkrout & Brauer, 2002). Likewise, newcomers in groups are more likely to sanction a norm violator in public rather than in private and when observed by a high- rather than low-status audience, because these conditions offer strategic opportunities to enhance one's acceptance by the group (Jetten, Hornsey, Spears, Haslam, & Cowell, 2010; Noel, Wann, & Branscombe, 1995). These findings suggest that observers react towards norm violators, at least partly, in a self-serving manner. As a result, we predict that those who are higher in a hierarchy will see norm violators as threatening their hierarchical position and reject their claim for status.

Verticality, Norm Violators, and Maintenance of Hierarchy

The quest for status is a fundamental human motive (Anderson, Hildreth, & Howland, 2015; Barkow, 1975). Being at the top comes with the luxury of material, psychological, and social benefits (Anderson, Willer, Kilduff, & Brown, 2006). This explains why individuals in higher-standing positions are highly sensitive to a possible status loss and strongly motivated to maintain their position (Blader & Chen, 2011; Chen, Brockner, & Greenberg, 2003; Chen, Peterson, Phillips, Podolny, & Ridgeway, 2012). In support of this argument, those who perceive themselves to have high status become angry when confronted with a competing claim for high status (Troyer & Younts, 1997). Similarly, upper-class and high-power individuals tend to be less generous and charitable and more likely to take valued goods from others, behaviors

that indicate that they are less willing to share their resources (Piff, Kraus, Côté, Cheng, & Keltner, 2010; Piff, Stancato, Côté, Mendoza-Denton, & Keltner, 2012; Rucker, DuBois, & Galinsky, 2011; Dubois, Rucker, & Galinsky, 2015; Lammers, Stapel, & Galinsky, 2010). Likewise, higher-SES individuals show less support for redistributive policies that aim to reduce social inequality (Brown-Iannuzzi, Lundberg, Kay, & Payne, 2015) and restorative justice interventions that intend to enhance social opportunity (Kraus & Keltner, 2013).

Social Dominance Theory (SDT; Sidanius & Pratto, 1999) maintains that human societies often organize as hierarchical systems, with those on top of the hierarchy holding hierarchy-enhancing beliefs that organize their behavior in ways that preserve the status quo and satisfy their need for social dominance. Dominance, however, rarely remains uncontested – those who are at the bottom of the hierarchy may endorse hierarchy-attenuating beliefs that challenge the status quo by supporting policies that mitigate social inequality. SDT further contends that this constellation of beliefs and behaviors constitutes an ideology that legitimizes inequality (Pratto, Sidanius, & Levin, 2010). Support for social inequality, or social dominance orientation (SDO) is asymmetric across different strata of a hierarchy, because higher-status groups have the most to lose and so experience the most threat when confronted by possible loss of status. SDO reveals high-verticality individuals' concern over the maintenance of the status quo, which as a group-level process synchronizes with processes operating at different levels of analysis (e.g., reduced generosity in interpersonal relations or reduced support for redistributive policies) to jointly reinforce existing hierarchies.

Empirical evidence appears to be consistent with the propositions of SDT. For example, SDO is positively correlated with legitimizing beliefs, such as political conservatism and support for severe punishment of lawbreakers (Mitchell & Sidanius, 1995). Moreover, higher-SDO individuals tend to attach much importance to values supporting tradition, stability, and respect for social norms as an expression of social control and security (Barnea & Schwartz, 1998) and are less interested in principles that stress tolerance (Cohrs, Moschner, Maes, & Kielmann, 2005). There is also evidence that individuals in high-power positions make more conservative decisions when the status quo is perceived to be in jeopardy (Maner, Gailliot, Butz, & Peruche, 2007). In contrast, individuals in low-power positions are more likely to favor material allocation that facilitates social change (Scheepers, Spears, Doosje, & Manstead, 2006).

The above findings suggest that across different facets of social life, from individual motivations and interpersonal processes to socio-political attitudes and intergroup ideologies, individuals who rank high are keen to maintain social hierarchies. As a consequence, behavior that threatens the stability of the extant status hierarchy, such as norm-violating behavior, would be particularly punished by individuals who stand on top of the hierarchy. These high-ranking individuals may reject a norm violator's claim to power to defend their own position in the hierarchy.

Hypotheses and Overview of Studies

Given that norm-violating behavior evokes negative reactions while norm-following behavior reduces uncertainty, norm violators should generally be afforded less power compared to norm abiders (Hogg, 2000; Van Kleef et al., 2015). However, the relative preference for norm followers over norm violators may be stronger among high- rather than low-verticality observers, because following norms helps keep the social hierarchy intact and preserve the place of high-verticality individuals (Feldman, 1984; Sidanius & Pratto, 1999). We therefore predicted a main effect of an actor's behavior on power affordance, such that norm

violators would be afforded less power than norm abiders (Hypothesis 1), but also an interaction effect between actor's behavior and observer's verticality, such that the amount of power afforded to norm violators would be relatively lower for high-verticality observers (Hypothesis 2).

To test Hypotheses 1 and 2, we carried out 12 studies where we manipulated an actor's behavior as norm violating or norm following. We also operationalized observers' verticality in two different ways: as an enduring personality trait that was measured in terms of personal sense of power, socioeconomic status (SES), or prenatal testosterone exposure (a correlate of dominance) in Studies 4.1 to 4.6; and as an ephemeral, transient state that was experimentally manipulated as a position of power, status, or dominance in Studies 4.7 to 4.12 (Ellyson & Dovidio 1985; Hall et al., 2005; Hall, Schmid Mast, & Latu, 2014; Schmid Mast, 2010). A meta-analysis across these studies revealed that individuals were less likely to afford power to norm violators than to norm abiders, and that this effect was stronger among individuals with higher trait – but not state – verticality. To replicate these findings while controlling for study-to-study variance, we implemented both a trait and a state operationalization of verticality in Study 4.13. Finally, in Study 4.14 we explored the role of SDO as a common denominator that predisposes individuals with higher trait verticality to more strongly support norm-following actors.

It is noteworthy that the operationalizations of verticality employed in our studies captured the breadth of the analytical levels involved in our theoretical rationale. For example, we measured basal testosterone as a physiological correlate of desired dominance (individual level), personal sense of power as asymmetric control over resources in social relations (interpersonal level), and SES as subjective perception of one's relative standing in society (societal level). In the final study we also measured social dominance orientation (intergroup level), not as an operationalization of verticality, but as an attempt to link the effects of verticality observed in the previous studies to higher-level processes, such as support for group inequality as a condition that sustains social hierarchies.

Certain phases of the experimental procedure were similar across studies. All studies started with a brief description of the study, after which participants indicated their participation consent and answered a few demographic questions. In studies where verticality was measured, participants were subsequently exposed to the actor's behavior manipulation and replied to a trait verticality measurement embedded among other questions either at the beginning of the study (Study 4.2) or at the end of the study (Studies 4.1 and 4.3–4.6); in studies where verticality was operationalized as a state, participants were first exposed to the verticality manipulation and then to the actor's behavior manipulation (Studies 4.7–4.12). Then, participants indicated whether they would afford power to the actor and answered questions checking whether the manipulations were successful. At the conclusion of the study, participants were compensated with money or course credits and debriefed.

Participants were either Dutch citizens recruited via an online system of the University of Amsterdam (www.test.uva.nl) or American citizens recruited through Amazon's Mechanical Turk (www.mturk.com) and Crowdfunder (www.crowdfunder.com). Basic demographics for each study are displayed in Table 4.1. Participants were excluded from the sample if they had missing data on the questions measuring trait verticality or power affordance, had incorrectly replied to conspicuous questions checking the verticality manipulation, or had recently participated in a similar study. Excluded participants per criterion are presented in Table S4.1 (Supplementary Material Chapter 4).

Table 4.1

Demographics and Operationalization of Independent Variables per Study

Study	Country	N	M _{age} (SD)	Gender			Actor's behavior ^a	Operationalization	
				Men	Women	Other			
4.1	NL	67	-	-	-	-	Inappropriate posture at work	Observer's verticality	Personal sense of power (T)
4.2	US	229	32.19 (9.07)	140	89	0	Late arrival at a work meeting		Personal sense of power (T)
4.3	NL	40	21.97 (4.40)	7	32	1	Breach of political rules		Socioeconomic status (T)
4.4	NL	58	20.40 (2.10)	12	46	0	Breach of constitutional rules		Socioeconomic status (T)
4.5	NL	101	21.86 (2.51)	36	65	0	Disruption of silence and cleanliness at the university ^b		Prenatal testosterone exposure (T)
4.6	NL	66	21.76 (2.39)	22	44	0	Late arrival at a work meeting		Prenatal testosterone exposure (T)
4.7	US	159	30.50 (9.77)	99	60	0	Inappropriate posture at work		Boss vs. employee role (S)
4.8	US	159	29.87 (8.18)	96	63	0	Breach of political rules		Boss vs. employee role (S)
4.9	US	172	30.92 (8.74)	109	63	0	Late arrival at a work meeting		Boss vs. employee role (S)
4.10	NL	96	19.55 (1.46)	11	85	0	Late arrival at a work meeting		Head vs. member role (S)
4.11	US	172	35.88 (11.92)	95	76	1	Late arrival at a work meeting		High vs. low power recall (S)
4.12	US	134	35.97 (10.68)	60	74	0	Late arrival at a work meeting		High vs. low dominance prime (S)
4.13	NL	116	19.48 (1.59)	17	98	1	Late arrival at a work meeting		Socioeconomic status (T) & high vs. low dominance role (S)
4.14	NL	135	23.06 (6.88)	41	94	0	Disruption of silence and cleanliness at the university ^b		Social dominance orientation (T)

Note. NL=Netherlands. US=United States. N=final sample. Other=unknown gender or transgender. T=trait. S=state.

^a We describe only the norm violation condition in the interest of space. For a detailed description of both conditions see Appendix 4A.

^b In this study the actor's behavior was manipulated by means of a video instead of a scenario

Studies 4.1 to 4.12

Method

Design, materials, and procedure. In all studies we manipulated an actor's behavior as a between-subjects factor by means of a scenario or a video displaying a person who either violated or adhered to certain social norms. We operationalized observer's verticality as an enduring trait in the first six studies and as a transient state in the last six studies. This resulted in a simple between-subjects (actor's behavior: norm violation vs. norm adherence) factorial design with a continuous moderator (observer's trait verticality) in Studies 4.1 to 4.6, and a 2(actor's behavior: norm violation vs. norm adherence) x 2(observer's state verticality: low vs. high) between-subjects factorial design in Studies 4.7 to 4.12.

Actor's behavior. To manipulate the actor's behavior, we used a range of conventional norms whose content depended on the context of the scenarios or the video clip. For instance, the actor arrived late (vs. well on time) for an organizational meeting, talked loud (vs. softly) in the university library, or interrupted his conversation partner (vs. waited till his conversation partner finished). To ensure that the actor's behavior would be perceived as norm violating or adhering, in almost all studies the actor would verbally stand in favor of a rule breaking attitude (i.e., "*Rules are there to be broken*") or a rule following one (i.e., "*Rules are there for a reason*"). The context of the study scenarios varied from a meeting between colleagues or classmates to elections of a political leader or a student representative. A detailed description of the scenarios and snapshots from the video we used is provided in Appendix 4.A.

Observer's trait verticality. We measured participants' trait verticality by means of three commonly used operationalizations that tap into one's dispositional hierarchical standing.

In Studies 4.1 and 4.2 we measured Personal Sense of Power (PSP) using an 8-item scale developed by Anderson, John, and Keltner (2012). Sample items are "*In my relationships with others... I can get others to do what I want*" and the reverse-coded "*... my ideas and opinions are often ignored*" ($\alpha=.83$ in Study 4.1 and $\alpha=.91$ in Study 4.2).

In Studies 4.3 and 4.4 we measured subjective Socioeconomic Status (SES) using a 6-item scale provided by Griskevicius, Tybur, Delton, and Robertson (2011). Example items are "*I grew up in a relatively wealthy neighborhood*" and "*I have enough money to buy things I want*" ($\alpha=.75$ in Study 4.3 and $\alpha=.81$ in Study 4.4).

In Studies 4.5 and 4.6 we estimated prenatal exposure to testosterone by measuring participants' digit ratio (Manning, 2002). Digit ratio has been considered a biological marker of dispositional dominance as it correlates with self-report measures of dominance but also with several dominance-related traits, such as risk taking under conditions of a status threat (Manning & Fink, 2008; Millet, 2011; Ronay & Galinsky, 2011; Ronay & Von Hippel, 2011). Specifically, we calculated digit ratio by dividing the length of the fourth digit by the length of the second digit on participants' right hand. Images of participants' hands were acquired via a flatbed scanner at the conclusion of the study and second and fourth digits were subsequently measured from the ventral proximal crease of the digit to the tip of the finger. Two coders rated the same subset of 10% of the images, and after interrater reliability was established to be substantially high, one of the coders went on to rate the remaining 90% of the images (Carney, Hall, & Smith LeBeau, 2005). The interrater reliability was $\alpha=.92$ in Study 4.5 and $\alpha=.96$ in Study 4.6.

Observer's state verticality. We manipulated participants' state verticality using

procedures that modulate one's situational hierarchical standing. Accordingly, in Studies 4.7 to 4.10 participants were asked to assume they had a high or low ranking role (e.g., boss or head of a committee vs. employee or member of a committee) and write down how they would feel, think, and act in this role (Rucker et al., 2011; Anderson & Berdhal, 2002). In Study 4.11, participants recalled an autobiographical experience of high or low power and wrote down the name of the person(s) involved as well as their own feelings, thoughts, and actions (Galinsky, Gruenfeld, & Magee, 2003). In Study 4.12, we implemented an implicit verticality manipulation by using a standard priming technique. In a word-search puzzle, participants had to find ten dominance or submissiveness words that were presented among other neutral words. After completing the word-search puzzle participants were asked to recall and write down the words they had found (Chen, Lee-Chai, & Bargh, 2001). A detailed description of the verticality manipulations we used is provided in Appendix 4.B.

Power affordance. We assessed power affordance by measuring perceptions of the actor's legitimate power in Study 4.1 and readiness to support the actor as leader in Studies 4.2 to 4.12. The legitimate power scale measures the perception that someone has a legitimate right to influence others and that others have an obligation to accept this influence (French & Raven, 1959), both of which are important precursors to power affordance. This scale consisted of four items: *"This person can make others feel... that they have commitments to meet"*, *"... that they should satisfy their job requirements"*, *"... that they have responsibilities to fulfill"*, and *"... that they have tasks to accomplish"* ($\alpha=.90$; Hinkin & Schriesheim, 1989). The leader support scale consisted of four statements that were derived from scales measuring leadership endorsement (Rast, Gaffney, Hogg, & Crisp, 2012; Shepherd, Kay, Landau, & Keefer, 2011) and were adjusted to fit the context of each scenario: *"I would vote for this person"*, *"I would be a strong supporter of this person"*, *"I think this person would be an effective leader"*, and the reverse-coded item *"I would vote against this person"*. The average reliability of the leader support scale was .90 with a range of .81 to .96.

Actor's behavior manipulation check. We checked the manipulation of the actor's behavior using a scale measuring perception of norm violation. In Studies 4.1, 4.3 to 4.6, and 4.9 to 4.12, we used the items *"I think this person... behaves inappropriately"*, *"... breaks the rules"*, and the reverse-coded items *"... behaves appropriately"* and *"complies by the rules"* (mean $\alpha=.89$ with a range of .62 to .96). In Studies 4.7 and 4.8 we used the item *"This person's behavior is ... norm violating"* and the reverse-coded item *"... appropriate"* (mean $r=.66$, $p<.01$, with a range of .57 to .76). In Study 4.2 the manipulation check questions were omitted because of a programming error.

Observer's verticality manipulation check. We checked the manipulation of participants' verticality using a scale tailored to the context of each study. In Studies 4.9 and 4.11, we asked participants the extent to which they were feeling *"independent"*, *"in charge of others"*, *"in control"*, *"responsible"*, *"powerless"*, *"submissive"*, and *"dependent"*, with the last three items being reverse-coded (mean $\alpha=.91$). In Study 4.10, we asked participants *"How much influence did you have in the role you assumed"* and *"How much power did you have in the role you assumed"* ($\alpha=.69$). In Studies 4.7 and 4.8 we did not include a manipulation check because the procedure we used has been repeatedly validated in the past and is routinely used in the power literature (Magee & Galinsky, 2008). In Study 4.12 we did not include a manipulation check because we used a priming task that activates the concept of power on a non-conscious level.

Response scales. All items in our questionnaires were answered on 7-point Likert

scales ranging from “1=strongly disagree” to “7=strongly agree” or “1=not at all” to “7=very much” depending on the phrasing of each questionnaire. Exceptions were the norm violation manipulation check scale used in Study 4.3 and the verticality manipulation check scale used in Study 4.10, which both ranged from 1 to 100. We averaged participants' responses across the items of each scale and created composite scores that we used in the analyses below.

Analytic Strategy

After checking our manipulations, we followed a three-stage procedure to test Hypotheses 1 and 2. First, we carried out a multiple regression analysis per study where power affordance was predicted by actor's behavior, observer's verticality, and the interaction between them. Actor's behavior was coded as -1 for the norm violation condition and 1 for the norm adherence condition. Verticality was centered at the sample mean when it was a continuous moderator (Studies 4.1–4.6) and it was coded as -1 for the low verticality condition and 1 for the high verticality condition when it was a categorical moderator (Studies 4.7–4.12).

Second, we entered the unstandardized regression coefficients and their 95% confidence intervals (CI) obtained from the individual regression analyses into three separate meta-analytic models that estimated the overall main effect of actor's behavior, the overall main effect of observer's verticality, and the overall interaction effect of actor's behavior and observer's verticality on power affordance. Even though we formulated no hypothesis about the effect of observer's verticality, we report it in order to provide a complete picture of the results. Third, we examined whether different operationalizations of observer's verticality (trait vs. state) might create heterogeneity among the observed effect sizes by using the operationalization of verticality as a meta-analytic moderator.

Meta-analytic models and software. Meta-analysis combines the results of different studies by means of fixed- or random-effects models. Fixed-effects models gain statistical precision by incorporating information about sample sizes into the calculations and typically yield stronger effects because they are more powerful. However, fixed-effects models offer generalization only to the same study designs with new participants from the same population, whereas random-effects models offer generalization to new studies that test the same hypothesis but have different study designs (Raudenbush, 2009). Because of the variety of methodologies used and the great heterogeneity among the effect sizes (as discussed below), it was clear that study-level variance should be taken into account as in the random-effects approach. We therefore calculated the basic results in the second analytic stage using both random- and fixed-effects approaches for comparison purposes and we conducted analysis of moderator variables in the third analytic stage using a fully random-effects approach (Rosenthal, 1995). Both random- and fixed-effects analyses were performed using the Comprehensive Meta-Analysis software (Borenstein, Hedges, Higgins, & Rothstein, 2005).

Results

Manipulation checks. A series of Analysis of Variance (ANOVA) performed in each study showed that participants in the norm violation condition considered the actor's behavior more norm violating than participants in the norm adherence condition, indicating a successful manipulation in Studies 4.1 and 4.3 to 4.12 (see Table 4.2 for estimates per study).

Participants in the high verticality condition felt more dominant than participants in the low verticality condition, indicating that the observer's verticality manipulation was

successful in Studies 4.9, 4.10, and 4.11 (see Table 4.3 for estimates per study).⁵

Actor's behavior and observer's verticality effects on power affordance. We report the results testing Hypotheses 1 and 2 as a meta-analysis because the procedures of Studies 4.1 to 4.12 were largely identical, and reporting them as separate studies would entail considerable repetition (the results of the individual regression analyses are displayed in Table 4.4). Furthermore, the meta-analytic report provides a more reliable and complete picture than each study in isolation, and the greater quantity of data included in the meta-analysis provides the statistical power needed to obtain reliable estimates of the effect sizes.

Meta-analytic results: overall effects. The overall effect size estimates are displayed in Table 4.5 along with the heterogeneity statistics that describe the dispersion of the observed effects. In line with Hypothesis 1 that predicted a main effect of actor's behavior, both random- and fixed-effects models showed that participants across studies were less willing to afford power to actors that violated rather than followed the norms. Consistent with Hypothesis 2, the main effect of actor's behavior was qualified by a significant interaction with observer's verticality, such that the preference for norm followers over norm violators was stronger among higher verticality observers as compared to lower verticality observers. Both main and interaction effects, however, showed significant heterogeneity, so we examined the influence of moderators in the next stage. The overall main effect of observer's verticality was not significant. The overall effects reported in Table 4.5 are largely consistent with the study-per-study effects reported in Table 4.4.

Table 4.4

Main and Interaction Effects of Actor's Behavior and Observer's Verticality on Power Affordance

Study	Actor's Behavior			Observer's Verticality			Actor's Behavior X Observer's Verticality		
	β	t	η_p^2	β	t	η_p^2	β	t	η_p^2
4.1	.04	0.36	<.01	-.04	-0.33	<.01	.32	2.68 ^{**}	.10
4.2	.74	16.96 ^{**}	.56	.11	2.56 ^{**}	.03	.15	3.50 ^{**}	.05
4.3	.19	1.17	.04	.01	0.03	<.01	.31	1.91 [†]	.09
4.4	.07	0.54	.01	.11	0.84	.01	.40	3.03 ^{**}	.15
4.5	.39	4.21 ^{**}	.15	.14	1.51	.02	.19	2.11 [*]	.04
4.6	.71	7.89 ^{**}	.50	-.02	-0.19	<.01	.21	2.27 [*]	.08
4.7	.60	9.29 ^{**}	.36	-.01	-0.10	<.01	.04	0.63	<.01
4.8	.10	1.26	.01	.06	0.73	<.01	.05	0.66	<.01
4.9	.48	7.05 ^{**}	.23	-.01	-0.10	<.01	.07	0.96	.01
4.10	.68	9.05 ^{**}	.47	.03	0.33	<.01	-.05	-0.70	.01
4.11	.51	7.73 ^{**}	.26	.02	0.24	<.01	-.03	-0.49	<.01
4.12	.58	8.09 ^{**}	.33	-.04	-0.61	<.01	.06	0.77	.01

Note. Actor's behavior was coded as -1 for the norm violation condition and 1 for the norm adherence condition. Observer's verticality was centered at the sample mean in Studies 4.1 – 4.6 and it was coded as -1 for the low verticality condition and 1 for the high verticality condition in Studies 4.7 to 4.12.

† $p < .10$. * $p < .05$. ** $p < .01$.

⁵ We also tested whether there was an effect of actor's behavior on observer's verticality in the studies where the former preceded the later, that is, in Studies 4.1 and 4.3 to 4.6. These analyses showed no significant effect. Similarly, we examined whether there was an effect of observer's verticality on perceptions of the actor's behavior in the studies where the former predated the later, that is, in Studies 4.2 and 4.7 to 4.12. These analyses again showed no significant effect.

Table 4.5

Meta-Analytic Main and Interaction Effects of Actor's Behavior and Observer's Verticality on Power Affordance

Predictor	Model	Effect size				Heterogeneity		
		<i>b</i>	SE	95% CI	<i>Z</i>	<i>Q</i>	df	τ^2
Actor's Behavior	Fixed	0.78	.03	[0.72, 0.85]	23.33 ^{***}	157.57 ^{***}	11	.18
	Random	0.67	.13	[0.41, 0.92]	5.18 ^{***}			
Observer's Verticality	Fixed	0.05	.04	[-0.02, 0.12]	1.43	8.58	11	<.01
	Random	0.05	.04	[-0.02, 0.12]	1.43			
Actor's Behavior X	Fixed	0.14	.07	[0.07, 0.21]	3.91 ^{***}	28.16 ^{***}	11	.03
Observer's Verticality	Random	0.15	.06	[0.03, 0.28]	2.45 ^{**}			

* $p < .05$. ** $p < .01$.

Meta-analytic results: moderator analysis. We investigated whether operationalization of observer's verticality had an impact on the main effect of actor's behavior and then on the interaction effect between actor's behavior and observer's verticality by running two fully-random-effects analysis with verticality operationalization as a categorical moderator (trait vs. state).

The first analysis showed that the way we operationalized verticality did not influence the preference for norm followers over norm violators, $Q_{between}(1)=0.42$, $p=.52$. In both trait and state verticality studies, participants would afford less power to the norm-violating actor, $b=0.58$, $SE=.19$, 95% CI [0.20, 0.96], $Z(6)=2.97$, $p<.01$ in trait verticality studies, and $b=0.75$, $SE=.19$, 95% CI [0.38, 1.13], $Z(6)=3.94$, $p<.01$ in state verticality studies.

The second analysis showed that the operationalization of verticality had an impact on the relatively stronger preference against norm violators among higher verticality observers as compared to lower verticality observers, $Q_{between}(1)=12.23$, $p<.01$. Exploring the pattern of the moderation indicated that in studies that employed a trait operationalization of verticality (Studies 4.1–4.6), there was a stronger rejection of norm violators among higher verticality observers rather than lower verticality observers, $b=0.34$, $SE=.07$, 95% CI [0.20, 0.48], $Z(6)=4.79$, $p<.01$. In contrast, in studies that employed a state operationalization of verticality (Studies 4.7–4.12), there was no difference between high- and low-verticality observers in the relative preference of norm followers over norm violators, $b=0.03$, $SE=.05$, 95% CI [-0.07, 0.14], $Z(6)=0.64$, $p=.52$.

To further examine this moderated interaction effect we carried out simple-effect analyses that tested the effect of target's behavior on power affordance for high and low levels of observer's verticality within each individual study. The simple-effect analyses were conducted differently in studies where verticality was a continuous moderator (Studies 4.1–4.6) and in studies where verticality was a categorical moderator (Studies 4.7–4.12). Specifically, in Studies 4.1 to 4.6 the effect of actor's behavior on power affordance was estimated for lower and higher levels of verticality by centering participants' verticality scores at one standard deviation above and one standard deviation below the sample mean, respectively (Aiken & West, 1991); in Studies 4.7 to 4.12, the effect of actor's behavior on power affordance was estimated separately within the low- and high-verticality conditions. Next, the effect size estimates obtained from the simple-effects analyses were entered into two separate random-effects meta-analytic models where verticality level (low vs. high) was coded as a moderator in order to assess its impact on the relative preference for norm followers over norm violators.

The meta-analytic results of the simple-effect analyses are displayed separately for

Studies 4.1 to 4.6 and Studies 4.7 to 4.12 in Figures 4.1 and 4.2, respectively. Meta-analytic results are commonly presented in a figure (forest plot) that depicts both the individual and overall effects. The left parts of the figures present the regression estimates of the simple-effect analyses for each individual study and the overall effects across high and low levels of verticality. The right parts of the figures graphically present these effects with their confidence intervals within a range of 2 SDs and relative to a reference line set at 0. The individual effects are presented with an empty square and the overall effects are represented with a solid diamond. When the confidence intervals of an effect fall on the right side of the reference line, participants afforded less power to the norm violator than norm follower; when they fall on the left side, participants afforded more power to the norm violator than to the norm follower; and when they fall in between, there was no significant difference.

The overall effects suggest that, in Studies 4.1 to 4.6, lower verticality participants did not differ in their preference to afford power to norm followers and norm violators, whereas higher verticality participants clearly afforded less power to norm violators than norm followers. In contrast, Studies 4.7 to 4.12 showed that both low- and high-verticality participants afforded less power to norm violators than norm followers. The difference in the overall effects between lower and higher verticality participants was marginally significant in Studies 4.1 to 4.6, $Q_{\text{between}}(1)=3.07, p=.08$, and it was not significant in Studies 4.7 to 4.12, $Q_{\text{between}}(1)=0.15, p=.70$.

Discussion

The meta-analysis of Studies 4.1 to 4.12 demonstrated that people generally afford less power to norm violators, in keeping with Hypothesis 1. Moreover, in support of our central argument and Hypothesis 4.2, higher verticality people prefer norm followers to norm violators to a greater extent than lower verticality people, but only when verticality reflects an enduring personality trait rather than an ephemeral state. For lower verticality individuals there was no difference in the power they would afford to norm followers and norm violators. In the next study we wanted to replicate these findings by comparing directly the effects of the different verticality operationalizations. So in Study 4.13 we pitted a trait measurement and a state manipulation of verticality against each other. This design also allowed us to control for study-to-study variability, since the manipulation of actor's behavior and the sample remained constant.

Study 4.13

We expected that the negative effect of norm violation on power affordance would be qualified by participants' trait verticality, such that high-verticality perceivers would favor norm followers over norm violators to a greater extent than low-verticality perceivers. Participants' state verticality was not expected to moderate the effect of norm violation on power affordance.

Method

The procedure of Study 4.13 was similar with the procedure followed in the studies where we manipulated verticality with the difference that at the beginning of the study we measured participants' SES as well. After the verticality manipulation, we manipulated the actor's behavior and then we assessed power affordance, perceived norm violation, and experienced dominance.

Participants first replied to demographic questions that included the SES scale we used in Studies 4.3 and 4.4 ($\alpha=.96$). Next participants were randomly assigned to a 2(actor's behavior: norm violation vs. norm adherence) \times 2(observer's verticality: low vs. high) between-

Trait Verticality

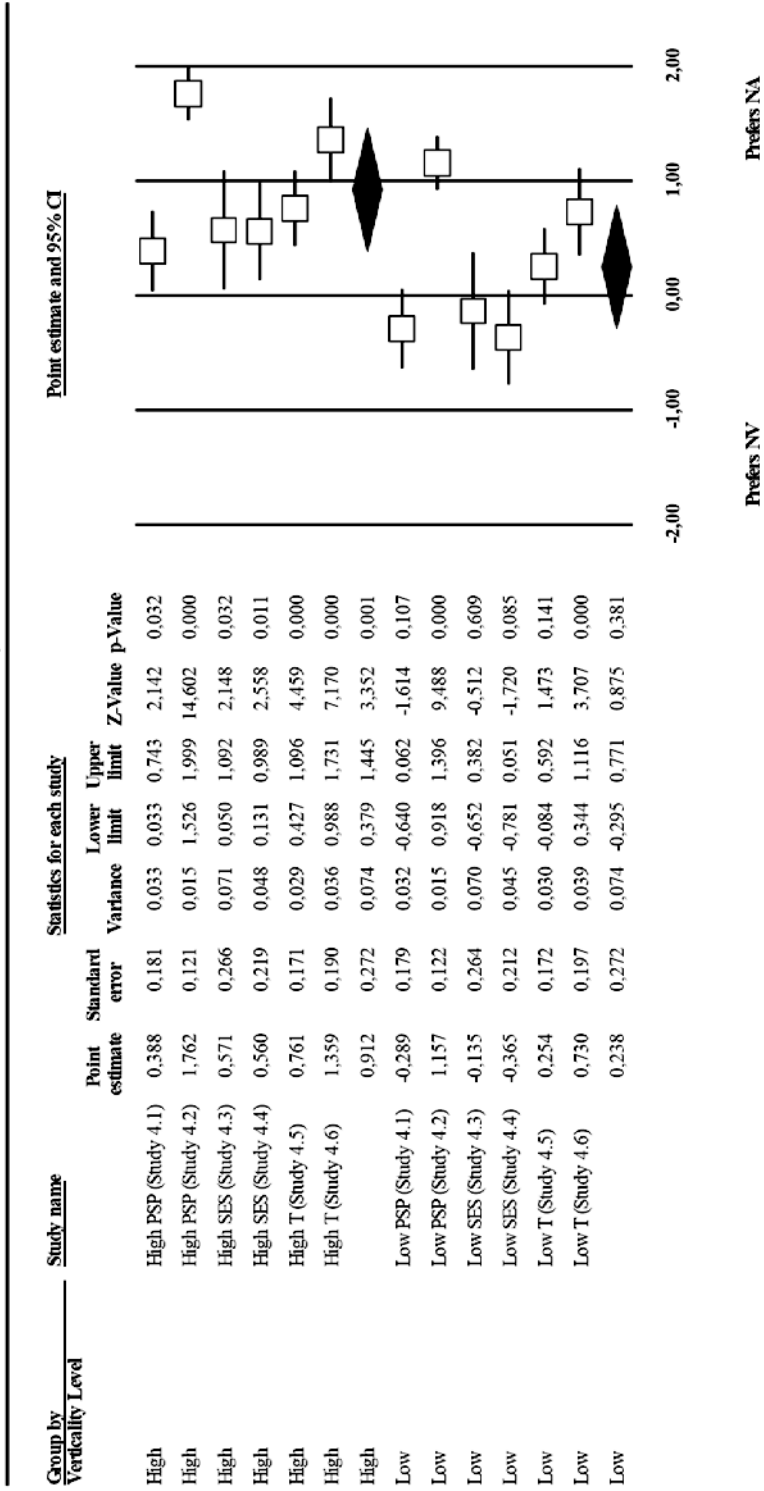


Figure 4.1. Power affordance as a function of actor's behavior and observer's trait verticality level in Studies 4.1 to 4.6. PSP, SES, and T stand for personal sense of power, socioeconomic status, and prenatal testosterone exposure, respectively. NV and NF stand for norm violator and norm follower, respectively.

State Verticality

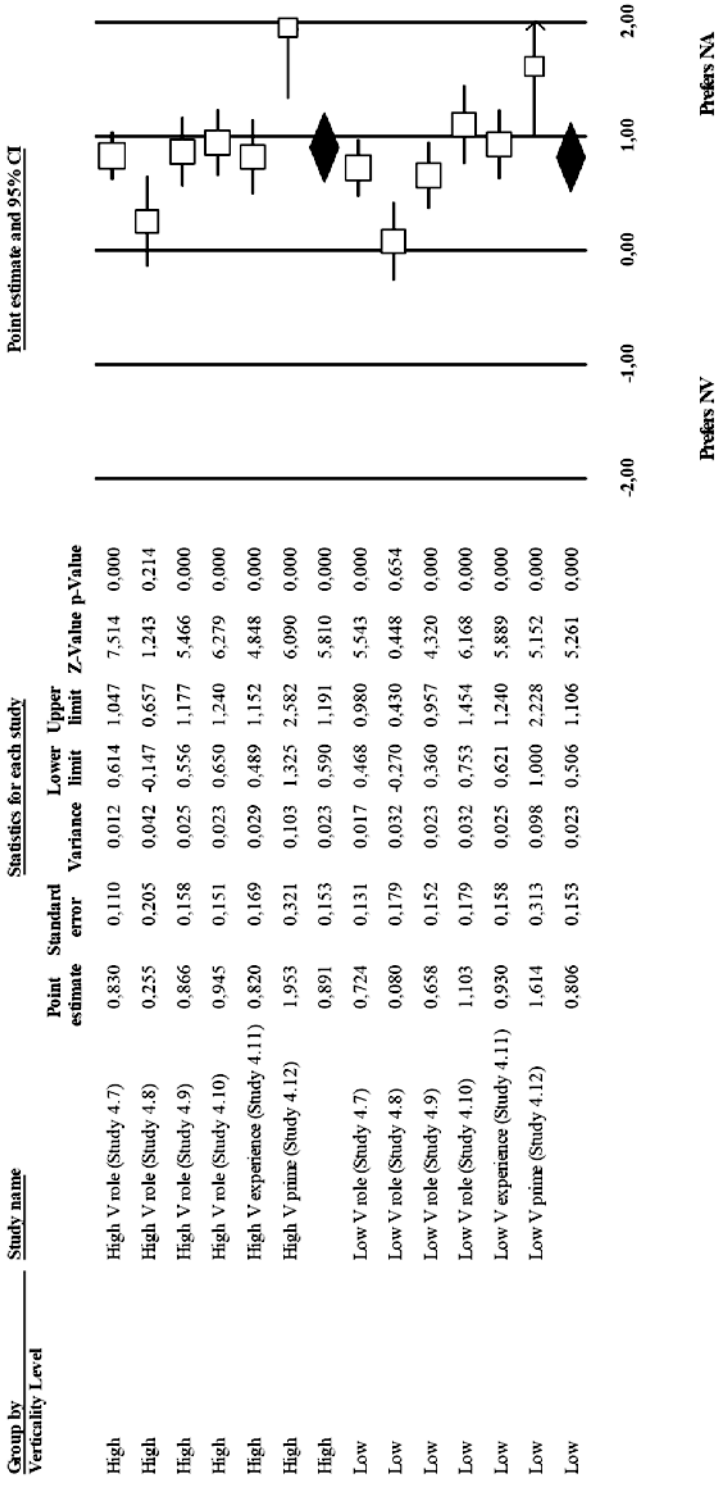


Figure 4.2. Power affordance as a function of actor's behavior and observer's state verticality level in Studies 4.7 to 4.12. V stands for verticality. NV and NF stand for norm violator and norm follower, respectively.

subjects factorial design. Actor's behavior was manipulated with the same scenario as in Studies 4.9, 4.11, and 4.12. Participants' verticality was manipulated by means of a writing task where participants recalled an autobiographical experience of low or high dominance. Power affordance was measured with the same scale as in Studies 4.2 to 4.12 ($\alpha=.89$). Perceived norm violation was assessed with the same items as in Studies 4.1, 4.3 to 4.6, and 4.9 to 4.12 ($\alpha=.93$). Experienced dominance was assessed with the Dominance – Submissiveness scale (Wiggins, 1979), which asked participants to report the extent to which they were momentarily feeling each of 16 states, for instance, "assertive", "domineering", "bashful", and "forceless", with the last two being reverse-coded ($\alpha=.86$).

Analytic strategy

We first checked whether the manipulations of actor's behavior and observer's verticality were successful. We also checked whether participants' SES influenced the likelihood of being assigned to the low- or high-verticality conditions. To test whether the interaction between an actor's behavior and observer's verticality depends on the operationalization of verticality, we ran two separate regression analyses – the first included trait SES as a moderator, and the second included state dominance as a moderator.

Results

Manipulation checks. Participants in the norm violation condition perceived the actor as more norm violating than participants in the norm adherence condition (see Table 4.2). Also, participants in the high-verticality condition reported feeling more dominant than participants in the low-verticality condition (see Table 4.3). A logistic regression model showed that participants' SES did not influence their likelihood of being assigned to the low- vs. high-verticality condition, $\chi^2(1)=.61, p=.43$.

Table 4.2
Effect of Actor's Behavior on Perceived Norm Violation (manipulation check)

Study	Norm Violation <i>M</i> (<i>SD</i>)	Norm Adherence <i>M</i> (<i>SD</i>)	<i>F</i> (<i>df_b</i> , <i>df_w</i>)	η_p^2
4.1	4.95 (1.03)	3.55 (1.00)	32.51 (1, 66)**	.33
4.3	58.42 (11.39)	35.57 (12.61)	35.35 (1, 37)**	.49
4.4	4.54 (0.85)	3.07 (0.79)	46.60 (1, 56)**	.45
4.5	5.31 (1.24)	2.58 (0.86)	165.07 (1, 99)**	.63
4.6	5.75 (0.97)	1.73 (0.71)	373.15 (1, 64)**	.85
4.7	5.36 (1.33)	2.90 (1.23)	147.77 (1, 157)**	.49
4.8	4.53 (1.63)	3.20 (1.33)	31.65 (1, 157)**	.17
4.9	4.86 (1.29)	2.06 (0.93)	267.27 (1, 170)**	.61
4.10	5.26 (1.20)	2.49 (0.97)	153.14 (1, 94)**	.62
4.11	5.22 (1.08)	2.07 (1.05)	373.38 (1, 170)**	.69
4.12	4.85 (1.31)	2.50 (1.16)	119.73 (1, 132)**	.48
4.13	4.98 (1.02)	2.22 (0.84)	253.46 (1, 114)**	.69
4.14	5.49 (1.46)	2.32 (0.96)	224.80 (1, 133)**	.63

Note. In Study 4.2 no manipulation check was included. In Study 4.3 a 100-point scale was employed. *df_b*=between-groups degrees of freedom. *df_w*=within-groups degrees of freedom.

** $p<.01$.

Table 4.3

Effect of Observer's Verticality on Self-reported Dominance (manipulation check)

Study	High Verticality	Low Verticality	<i>F</i> (<i>df</i> _b , <i>df</i> _w)	η_p^2
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
4.9	5.87 (0.80)	3.62 (1.26)	199.66 (1, 170)	.54
4.10	73.29 (14.31)	51.76 (17.84)	42.85 (1, 94)**	.31
4.11	4.76 (1.17)	2.84 (1.32)	101.49 (1, 170)**	.37
4.13	5.14 (0.71)	2.85 (0.75)	286.68 (1, 114)**	.72

Note. In Studies 4.1 to 4.6 no manipulation check was needed because verticality was measured. In Studies 4.7, 4.8, and 4.12 no manipulation check was included. In Study 4.10 a 100-point scale was employed. *df*_b=between-groups degrees of freedom. *df*_w=within-groups degrees of freedom.

***p*<.01.

Trait SES versus state dominance. In the first analysis, we regressed power affordance on actor's behavior (coded as -1 for the norm violation condition and 1 for the norm adherence condition), SES (centered at the sample mean), and the interaction between them. This analysis showed a main effect of actor's behavior, $b=.45$, $t(113)=4.27$, $p<.01$, $\eta_p^2=.14$, and an interaction effect between actor's behavior and participants' SES, $b=.27$, $t(112)=2.75$, $p<.01$, $\eta_p^2=.06$. To explore the nature of the interaction we carried out simple-effect analyses that tested the effect of actor's behavior on power affordance for participants of lower and higher SES. The simple-effect analyses showed that the tendency to afford more power to the norm-following than the norm-violating actor was significant for higher-SES participants, $b=.73$, $t(112)=5.05$, $p<.01$, $\eta_p^2=.15$, but not for lower-SES participants, $b=.17$, $t(112)=1.15$, $p=.25$.

In the second analysis, we regressed power affordance on actor's behavior, observer's state dominance (coded as -1 for the low-dominance condition and 1 for the high-dominance condition), and the interaction between them. This analysis showed only a main effect of actor's behavior – participants were inclined to afford less power to the actor who violated than the actor who adhered to the norms, $b=.44$, $t(113)=4.26$, $p<.01$, $\eta_p^2=.14$. In line with the meta-analytic results, the interaction between actor's behavior and state dominance was not significant, $b=-.05$, $t(112)=-0.48$, $p=.63$. The results of both analyses are depicted in Figure 4.3.

Discussion

Our investigations so far have consistently shown that norm violators are less likely to be granted power than norm followers. However, this relative preference is stronger among individuals who structurally reside in the upper rather than lower hierarchical strata. Interestingly, temporary changes in one's hierarchical position do not appear to play a significant role in shaping people's relative preferences for norm followers over norm violators. A possible explanation for this difference is that trait verticality measurements tap into stable beliefs that have been instigated, developed, and reinforced through social learning experiences, whereas state verticality manipulations are temporary and largely devoid of social context. Manipulations of verticality may therefore not influence concerns about hierarchy maintenance, which we theorized lie at the heart of high verticality people's stronger tendency to reject norm violators.

People at the higher end of verticality may believe that society is reasonably divided into different social groups, and that some are superior to others by nature. Such beliefs would motivate higher-standing individuals to perpetuate social inequality through the development

of an ideology that legitimizes the existing status quo. On the contrary, lower-standing individuals might show greater resistance to the status quo by adopting a more permissive attitude towards agents of social change, such as norm violators. To test the influence of these ideological beliefs on reactions to norm violators, we measured SDO in the final study. SDO is a personality trait that refers to individuals' orientation towards social inequality and has been associated with several verticality traits, such as SES and prenatal testosterone exposure (McIntyre, Barrett, McDermott, Johnson, Cowden, & Rosen, 2007; Sidanius, Levin, Liu, & Pratto, 2000).

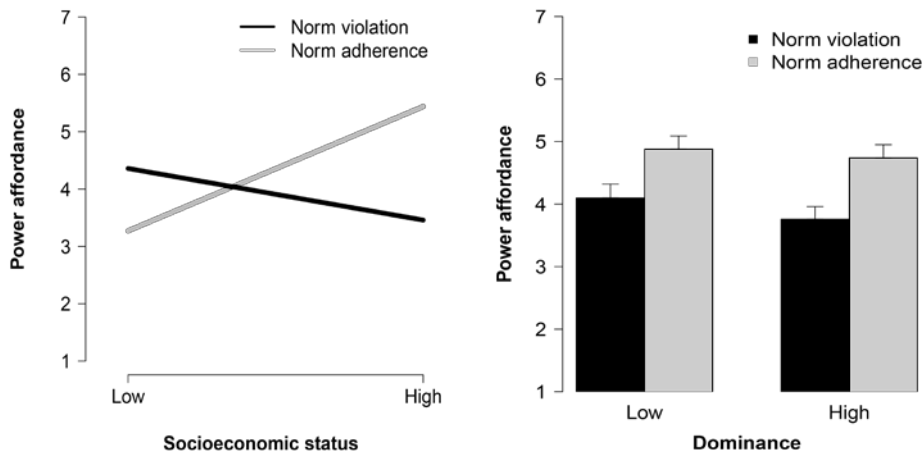


Figure 4.3. Power affordance as a function of actor's behavior and observer's trait verticality (socioeconomic status; left panel) and observer's state verticality (dominance role; right panel) in Study 4.13. Means in the left panel are plotted at 2 standard deviations below and above the mean of trait socioeconomic status. Error bars in the right panel represent standard errors.

Study 4.14

Based on the foregoing considerations, we predicted that higher-SDO individuals would prefer norm followers over norm violators to a greater extent than lower-SDO individuals.

Method

After replying to demographic questions, participants were presented with a video displaying a student who either violated or followed prevailing university norms. Next we measured participants' tendencies to afford power to the actor using the same power affordance scale used in Studies 4.2 to 4.13. Next we measured norm violation perception with the same 4-item scale used in the other studies. After a 30-minute long filler study we measured SDO with a 16-item scale developed by Pratto, Sidanius, Stallworth, and Malle (1994). Sample items are "Some people are just more deserving than others" and the reverse-coded "We should try to treat one another as equals as much as possible" ($\alpha = .91$). We did not measure SDO at the beginning of the study because we did not want to raise participants' awareness of our interest in dominance-related questions. Importantly, the actor's behavior manipulation did not influence participants' SDO scores.

Results

After the manipulation of actor's behavior was shown to be successful (see Table 4.2), we tested whether SDO moderated the effect of actor's behavior on power affordance in a similar way that other trait verticality measures did. We therefore regressed power affordance on actor's behavior (coded as -1 for the norm violation condition and as 1 for the norm adherence condition), participants' SDO (centered at the sample mean), and the interaction between them. Results showed that participants who watched the norm adherence video were more likely to afford power to the student than participants who watched the norm violation video, $b=.32$, $t(132)=2.76$, $p<.01$, $\eta_p^2=.06$. Furthermore, this main effect was qualified by a significant interaction with SDO, $b=.23$, $t(131)=2.17$, $p<.05$, $\eta_p^2=.04$. Simple-effect analyses showed that participants of higher SDO were less likely to support norm violators than norm followers, $b=.57$, $t(131)=3.52$, $p<.01$, $\eta_p^2=.09$, whereas participants of lower SDO did not favor norm violators versus norm followers, $b=.07$, $t(131)=.43$, $p=.67$. These findings are presented in Figure 4.4.

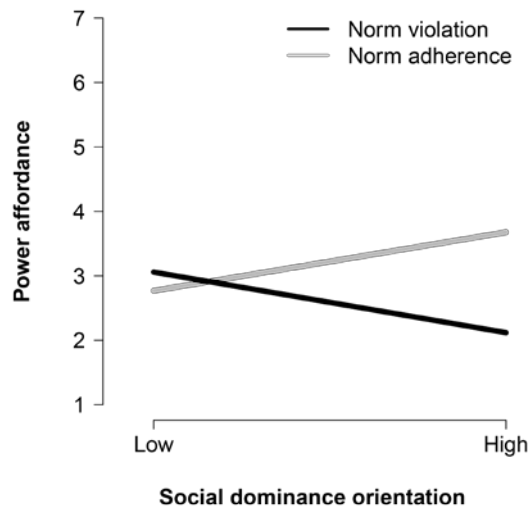


Figure 4.4. Power affordance as a function of actor's behavior and observer's social dominance orientation in Study 4.14. Means are plotted at 2 standard deviations below and above the mean of social dominance orientation.

General Discussion

Social norms keep anarchy at bay and lay the foundations of hierarchical relations in groups. Norm violations can jeopardize the stability of the hierarchical status quo and endanger the position of individuals who stand high in the hierarchy. Drawing on theories of hierarchy maintenance and power motivation (Chen et al., 2012; Sidanius & Pratto, 1999), we set forth the idea that individuals' support for norm violators depends on their own position in the hierarchy, in other words, their verticality. High-verticality individuals' vested interest in the maintenance of hierarchies manifests itself at different levels of analysis, including individual motivations, interpersonal relations, group processes and social policies. A meta-analysis of the first twelve studies supported our hypotheses: individuals afforded less power to norm violators, and this preference was stronger among high- rather than low-verticality individuals.

Across our studies, this relative preference was contingent on the operationalization of verticality. In studies where verticality was treated as a stable trait, higher verticality individuals rejected norm violators, whereas lower verticality individuals did not favor one over the other. In contrast, in studies where verticality was treated as a transient state, both high- and low-verticality individuals preferred norm followers over norm violators to the same extent, even though manipulation checks indicated that our manipulations of verticality were successful. Replicating these findings, Study 4.13 showed that individuals tended to afford less power to norm violators, but this tendency differed between high- and low-verticality individuals only when we took into account individuals' trait verticality – not when we considered the same individuals' manipulated state verticality. Finally, Study 4.14 provided suggestive evidence that the preference for social dominance, which is associated with the desire for privileged positions in society, was related to lower power affordance to norm violators.

The current findings have important implications for theorizing on leadership emergence and hierarchy maintenance. On the one hand, the finding that people generally bestow power on norm followers supports traditional leadership theories that attribute the emergence of leaders to specific behavioral styles. Following group norms signals commitment to the group, high integrity, and strong moral principles, which are all key traits to leadership emergence (Kirkpatrick & Locke, 1991). Breaking the rules, in contrast, causes uncertainty about issues that were normally regulated by the rules. And since uncertainty about important matters is aversive (Hogg, 2000), it is sensible that people commonly refrain from granting power to rule breakers. If rule breakers have a lower potential to gain power, they may also have a lower chance to be liked, hired, and positively evaluated for their performance by high-verticality individuals. This means that deviant attitudes would be less prevalent, while conformist attitudes would steadily strengthen the existing status quo, resulting in the maintenance of hierarchies.

On the other hand, we move beyond traditional approaches by highlighting the trait verticality of the individual who affords power as a key factor in determining another individual's leadership potential. The higher people's dispositional verticality, the more they reject norm violators. This finding contributes to a growing literature on the motivational underpinnings of hierarchy maintenance (Magee & Galinsky, 2008). Compared to individuals with lower dispositional verticality, individuals with higher dispositional verticality may be more sensitive to the potential status loss involved in having a norm violator move up the hierarchy, and consequently they may be more motivated to defend their relative standing. Residing in the upper echelons of society likely comes with the development of ideas, beliefs, and attitudes geared towards preserving the status quo and maintaining the existing hierarchy. By contrast, dwelling in the lower echelons of society may relate to less negative and more permissive attitudes towards individuals whose actions may imperil the status quo. In support of this argument, our final study explored the role of ideological beliefs about social inequality and generated similar results to the studies that measured trait verticality: higher SDO individuals supported norm violators less than norm followers, whereas lower SDO individuals did not differentially favor one over the other.

The development of an ideology that favors social inequality likely develops over time, as individuals habitually engage in social interactions that affirm and solidify their hierarchical rank. This implies that an ideology that legitimizes hierarchical differences between groups is not something that can be readily injected into individuals' minds by assigning them a temporary hierarchical position. This may explain why the preference for

norm followers over norm violators was not moderated by verticality in the studies where we manipulated participants' momentary states. This tentative conclusion is also consistent with recent meta-analyses and reviews indicating that trait and state operationalizations of verticality may indeed produce different outcomes (Hall et al., 2014; Strum & Antonakis, 2014).

Limitations

The arguments above could explain why trait and state verticality produced differential effects on reactions to norm violators in our studies. Alternatively, however, one could argue that state verticality did not moderate the effect of norm violation on power affordance because the state verticality manipulations we used involved imagined or embodied situations in which participants had little at stake. One could imagine creating a relatively high-stakes situation in the lab where participants interact with someone in the complementary verticality role, which would make the threat of a status loss more palpable. In such situations state verticality might influence participants' reactions to norm violators the way trait verticality did.

Another situation that could alter our results is an experimental setting where participants interact with a norm violator whose conduct has direct implications for their outcomes. Such a situation could lead participants to afford power to norm violators given the spatial and temporal proximity to possible benefits of the norm-violating act. For instance, in Van Kleef et al.'s (2012) study, participants likely afforded higher power to the norm-violating confederate because they directly benefited from his behavior (e.g., upon stealing coffee from the experimenter's desk, the norm violator offered the participant coffee as well), whereas in our studies, participants could only think of the indirect benefits of having a norm violator on top of the hierarchy (e.g., being upgraded to a higher position in case of a status quo change).

Future research could tie up these loose ends by manipulating the observer's state verticality and the target's behavior in the context of face-to-face interactions. Future studies could also provide direct evidence for the presumed psychological mechanism underlying our results, namely that high and low verticality individuals experience different levels of threat when observing a norm violator, and that these feelings of threat subsequently inform their differential responses to norm violators. An experimental design that crosses a manipulation of experienced threat and target's behavior could provide direct evidence for the proposed mediating process.

Conclusion

In sum the current research integrated processes that emerge from interpersonal power differences and societal structure preferences to understand the dynamics of granting power to norm violators. Our investigations showed that one's leadership potential is subject to another's position in the hierarchy, which may give rise to certain self-serving motives. Accordingly, we demonstrated that, while the disadvantaged offered equal chances to norm abiders and norm violators to reach the top, the privileged were reluctant to afford power to norm violators. By blocking norm violators' way to the top, high-standing individuals may achieve a short-lived goal of preserving their own little niche in the hierarchy – a strategy that eventually reinforces and perpetuates the social hierarchy in the long run.

Appendix 4.A

Actor's Behavior Manipulations

The text that differs between conditions is cited within brackets with the text used in the norm violation condition followed by the norm adherence condition. In studies that were carried out first with a Dutch and then an English sample names and cultural details were adjusted when necessary. These adjustments are cited within parentheses.

Studies 4.1 and 4.7: Work meeting (1st version)

Satisfaxxion is a consultancy firm. The company has several departments that have their own specialization. Employees of the company vary widely in terms of their background, expertise, age, and position. Employees typically work by themselves in their own offices, but they also meet in each other's offices sometimes to discuss matters that arise. Today it is time for such a meeting. De Vries (Peter) enters the office of Bruinsma (John). De Vries (Peter) takes a chair, sits down, and lputs his feet on Bruinsma's (John's) conference table / crosses his legsl.

Studies 4.2 and 4.6: Organizational meeting

K works for a medium-sized consultancy company that employs 20 people. Today is the Annual General Meeting of the company and everyone is expected to be present. [At 12:00 sharp the meeting organizer starts the discussion by listing the issues that concern the company. K arrives late to the meeting (12:10), walks in without knocking, and causes some commotion while getting seated / K arrives well on time (11:50), takes a seat, and gets prepared for the meeting. At 12:00 sharp the meeting organizer starts the discussion by listing the issues that concern the company].

Halfway through the meeting, K really wants some coffee. [Although it's not appropriate, K stands up and crosses through the center of the room to get to the coffee pot. He gets a cup of coffee, grabs the last few cookies leaving none left, and walks back to his seat / But to get coffee, he would have to stand up and walk to the other side of the room where the coffee pot is. Because this would not be appropriate, K decides to wait until the end of the meeting].

Towards the end of the meeting, the issue of mobile phone use comes up. The company has certain rules about using mobiles during working hours, but employees have occasionally expressed divergent opinions on this issue. [One of the employees starts explaining why he finds rules necessary and continues to do so for a few minutes. K disagrees with his colleague and interrupts him to express his opinion: "I don't see your point at all about the importance of rules, rules are there to be broken" / One of the employees starts explaining why he finds rules unnecessary and continues to do so for a few minutes. K disagrees with his colleague and waits for him to finish to express his opinion: "Thank you for pointing out the problems of some rules, but rules are there for a reason"]. Other employees also give their opinions and in the end the organizer rounds off the discussion.

[The meeting has now finished and everybody leaves the room / The meeting has now finished and everybody leaves the room while K crosses through the center of the room to get to the coffee pot. He gets a cup of coffee and a cookie, and heads back to his office].

Study 4.3: Political debate

Suppose that you are viewing a political debate where the main political candidates participate. At the end of the debate the journalist asks candidates to round off their speech with a few statements that reflect their core values. Political candidate L replies: "Politicians usually follow social conventions by following the rules. [But rules are there to be broken/ And rules are there for a reason] – this is my core value. [I therefore bend the rules when I deem it necessary/ follow the rules even if I think they are unnecessary]. In my ambition to move this country forward, I will make sure that I [break those rules that prevent us from achieving/ follow all the rules that allow us to achieve] our short- and long-term goals.

Studies 4.4 and 4.8: General elections

One of the latest press releases quotes a statement made by one of the political parties' representatives who has the ambition to become Premier in the Netherlands (Senator in the USA) in the upcoming general elections (Senate elections): "...My goal is to move the country forward

and create opportunities for the young. To achieve this, I contend that we need to strengthen the existing regulations. I am convinced that what has made this country successful ever since the Golden Age (our founding fathers started the country) is that our people are prepared to [break/ follow] the rules, even when doing so is difficult. And this is also how we will resurrect ourselves from the current economic situation if my party gets to rule the country: by [bending the rules and regulations whenever necessary/ adhering to the rules and regulations as much as possible]. Rules are there [to be broken/ for a reason] – this has been the guiding principle in my life. And if my party makes it to the coalition government (And if I am elected to the Senate), I will [reconsider, and if needed, circumvent constitutional regulations/ make sure that constitutional regulations are followed] in order to protect our national interests and achieve our goals."

Studies 4.5 and 4.14: Student elections

Participants watched a 180 sec-long film showing a student – in reality a trained actor – who was running as the Dutch representative for a European student council. In his campaign, the student had to show viewers around the university. While showing the university, the actor parked his bike in the [restricted/ allowed] area, [failed to return/ cautiously returned] his tray in the student restaurant, and [talked loudly and disturbed another student/ whispered] while presenting the student library. Below we present a snapshot of the norm violation film on the left and a snapshot of the norm adherence film on the right. The sign in the first couple of snapshots reads "bikes at the bicycle parking/ parking racks please" as translated from Dutch into English.



Studies 4.9, 4.11, 4.12, and 4.13: Work meeting (2nd version)

"Acceleration" is a consulting company. The company has several departments that have their own specialization. Employees of the company vary widely in terms of their background, expertise, age, and position. Employees typically work by themselves in their own offices, but they sometimes meet in a conference room to discuss matters that arise.

Today John and Chris have a meeting at 12pm. They are going to discuss the development of a new project. Chris arrives [late/ well on time] for the meeting, greets John, and takes a seat. After discussing the different stages of the project, Chris summarizes his viewpoint "I am happy we set timelines and agreed on general guidelines and when it comes to the implementation of ideas, I always think that we should [be flexible/ remain stable] – we should [not blindly follow the rules, rules are there to be broken/ consistently follow the rules, rules are there for a reason]".

Study 4.10: Student committee meeting

The following text appeared after the Verticality manipulation that is reported in Appendix B. Also the last statement is part of the Verticality manipulation.

... Today you are meeting with the Party Planning Committee to discuss the Christmas themed party. The meeting (was/is) supposed to start at 12:00, [but K doesn't arrive until 12:20, which means the meeting started 20 minutes late/ so K makes sure he arrives well on time to prepare for the meeting]. At every meeting coffee and cookies are provided because the meetings are sometimes lengthy. At some point K pours himself another coffee and [grabs the last four cookies on the plate, leaving none left/ grabs another cookie].

Halfway through the meeting, the issue of alcoholic drinks that will be offered during the party comes up. Last year, the committee decided that students will be able to order only certain types of alcoholic drinks. This year, however, the committee members have divergent opinions on this

issue. B starts explaining why he finds the drinking restrictions [unnecessary/ necessary] and continues to do so for a few minutes. K disagrees with B [and interrupts him/ but waits for him to finish] to express his opinion: "I don't see your point at all about the importance of drinking restrictions and rules, rules are there to be broken"/ "Thanks for pointing out the problems of drinking restrictions and rules, but rules are there for a reason".

The discussion goes on, but at some point the meeting has to end. [You/E], as Head of the Committee, finally [say/ says] that [you/E] will consider the different opinions and announce [your/ his] decision in the next meeting.

Appendix 4.B

Observer's Verticality Manipulations

The text that differs between conditions is cited within brackets with the high verticality condition followed by the low verticality condition.

Studies 4.7, 4.8, and 4.9: Boss vs. Employee role

We would like you to imagine you are [a boss/ an employee] at a company. Read about the role below and try to vividly imagine what it would be like to be in this role (i.e., how you would feel, think, and act).

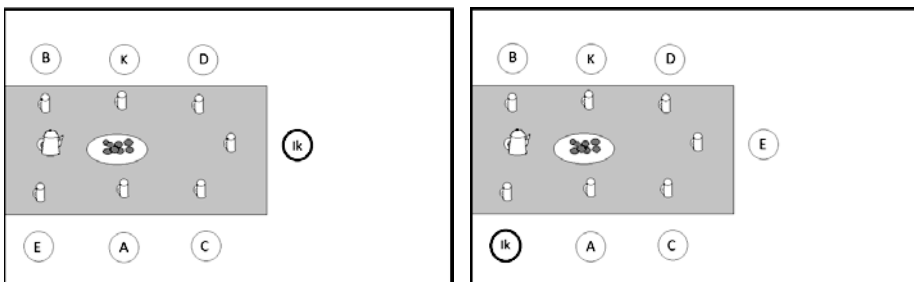
As [a boss/ an employee], you are [in charge of directing your subordinates in creating different products and managing work teams/ responsible for carrying out the orders of the boss in creating different products]. [You decide how to structure the process of creating products and the standards by which the work done by your employees is to be evaluated/ The boss decides how to structure the process of creating these products and the standards by which your work is to be evaluated]. As the [boss/ employee], you [have complete control over the instructions you give your employees/ must follow the instructions of the boss]. In addition, you [also evaluate the employees/ are evaluated by the boss] at the end of each month in a private questionnaire. This evaluation will determine the bonus reward you [give to employees/ get].

In the space provided below, please write down what you would feel, think, and act as someone in this role.

Study 4.10: Head vs. member of a student committee

One of the pictures below was shown to participants to allow them to visualize and imagine themselves in their high-verticality role (picture on the left) or low-verticality role (picture on the right) in the scenario (please note that "ik" means "I").

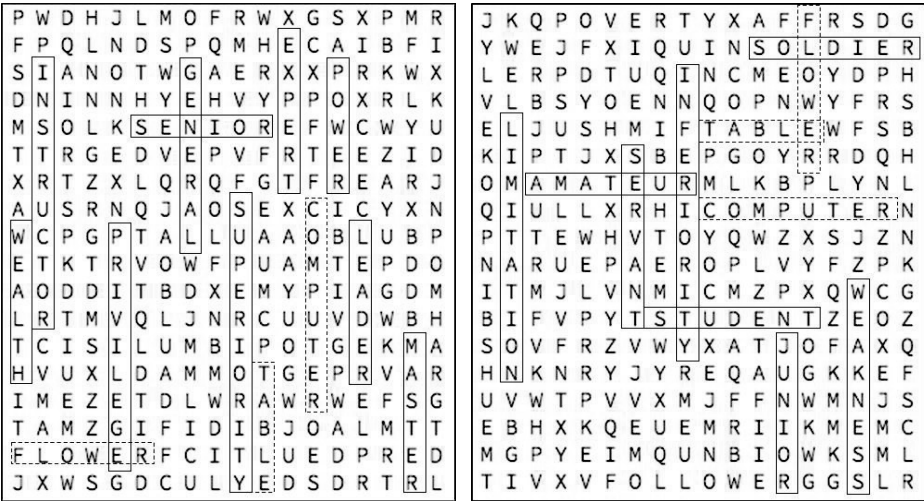
You are one of seven members of the Psychology Students' Party Planning Committee. This committee runs for one year before all its members are replaced by new students, so every student who wishes gets a chance to be on the committee. The Committee meets once every week. All of the seven members signed up voluntarily. To ensure that potential conflicts can be settled in a professional manner, one of the seven members is the Head of Committee, and, as Head of Committee, has final say over all the decisions. This year, [you were voted Head of Committee, while members A, B, C, D, E and K make up the rest of the committee/ member E was voted Head of Committee, while you and members A, B, C, D, K make up the rest of the committee].



Study 4.11: High vs. low power experience recall

We would like to ask you to recall a particular situation in which [you had power over another individual or individuals/ someone else had power over you]. 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/ someone had control over your ability to get something you wanted, or was in a position to evaluate you]. Try to relive this situation in your imagination. Please write the initials or given name of this person. Please describe this [high/ low] power situation - what happened, how you felt, etc.

Study 4.12: High vs. low dominance prime
Participants were instructed to hover over a word search puzzle and write down all the words that were highlighted. The left puzzle was shown in the high verticality condition and the right one was shown in the low verticality condition.



Study 4.13: High vs. low dominance experience recall
We would like to ask you to recall a particular situation in which you behaved in a [dominant/ non-dominant] way. You were a [forceful, assertive/ submissive, timid] person. [You were/ Someone else was] directing things or in charge of making decisions. You expressed yourself in a [confident and definitive/ hesitant and questioning] way. [You were making suggestions to another person or persons and they did what you wanted/ You followed another person's suggestions and you did what this person wanted].

CHAPTER 5

How Hierarchical Concerns Shape Attention to Emotions

This chapter is based on Stamkou, E., van Kleef, G. A., Fischer, A. H., & Kret, M. E. (2016). Are the powerful really blind to the feelings of others? How hierarchical concerns shape attention to emotions. *Personality and Social Psychology Bulletin*, 42, 755–768.
doi:10.1177/0146167216636632

Paying attention to others' emotional expressions is vital to human social functioning – it improves understanding (Keltner & Kring, 1998; Van Kleef et al., 2008), social adjustment (Gleason, Jensen-Campbell, & Ickes, 2009), stress management (Mikolajczak, Roy, Luminet, Fillée, & de Timary, 2007), and job performance (Côté & Miners, 2006). Thus, having a sharp eye for others' emotions benefits social relationships, psychological and physical well-being, as well as occupational success. There are circumstances, however, under which attention to others' emotions is hindered. According to popular wisdom, power dampens social sensitivity and makes people blind to the emotions of others. Despite this widespread belief, recent scientific evidence regarding how high- and low-power individuals perceive others' emotions is inconclusive.

Some studies suggest that high-power individuals are not very accurate at recognizing other people's emotions (Galinsky, Magee, Inesi, & Gruenfeld, 2006; Hall, Rosip, Smith LeBeau, Horgan, & Carter, 2006; Kraus, Côté, & Keltner, 2010). This finding fits theorizing and research suggesting that powerful individuals are not attuned to others due to their relative independence (Anderson, Keltner, & John, 2003; Fiske, 1993) and subjectively experienced social distance from others (Magee & Smith, 2013). Other studies found that high-power participants were actually quite accurate in recognizing others' emotions (Schmid Mast, Jonas, & Hall, 2009; see also Côté et al., 2011). Schmid Mast and colleagues interpret this finding in light of powerful individuals' tendency to process information in a global rather than local way (Smith & Trope, 2006), which facilitates emotion recognition (Calder, Young, Keane, & Dean, 2000). Still other work found that powerful individuals were unresponsive to others' emotional expressions, but not inaccurate at perceiving them (Van Kleef et al., 2008).

In short, empirical evidence regarding powerful individuals' ability to attend to others' emotions is inconclusive (Hall, Schmid Mast, & Latu, 2014). Here we integrate social-functional approaches to emotion with theorizing about the reciprocal nature of power to illuminate how the perceived legitimacy of power shapes attention to others' emotions.

Power, Legitimacy, and Attention to Emotions

Past research has examined the relationship between power and attention to others' emotions independent of social processes that may critically influence the experience of power and the meaning of emotions. The way individuals experience power depends on the way power was acquired (Overbeck, 2010). The current study acknowledges this overlooked fact by examining for the first time how high- and low-power individuals perceive others' emotional expressions as a function of the legitimacy of power acquisition.

According to the reciprocal influence model of social power (Keltner, Van Kleef, Chen, & Kraus, 2008), power is afforded to individuals who advance the interests of the group. Individuals who fail to engage in the interests of the group, on the other hand, may become targets of subordinates' attempts to constrain the unjust exercise of power (e.g., through gossip or coalition formation). This implies that the legitimacy of the power relationship may influence how individuals interpret power differentials and, accordingly, how they respond to them. Consistent with this argument, the approach/inhibition theory of power (Keltner, Gruenfeld, & Anderson, 2003) suggests that when power is unstable, as is often the case with illegitimate hierarchies, the approach-related effects of power may diminish and, instead, the powerful become vigilant to threat. Furthermore, when the power relationship is illegitimate the powerless may show increased approach tendencies in order to restore justice, and consequently they may become more attentive to situations that afford an opportunity to advance their status.

Indeed, previous research has shown that legitimacy subdues power differentials (van der Toorn, Tyler, & Jost, 2011), whereas illegitimacy can inflame them by triggering cognitive alternatives to the status quo. For the powerful, the instability of illegitimate power foreshadows the possibility of losing control (Tajfel & Turner, 1979). Even though they feel guilty and uneasy about their undeserved position (Smith, Jost, & Vijay, 2008), they still want to maintain and defend their power (Tetlock, 1981). For the powerless, however, the inadequacy of illegitimate power opens up the opportunity of gaining control (Keltner et al., 2008). They feel angry and irritated (Feather & Sherman, 2002) and react with increased tendencies to change the unfair power relation (Lammers, Galinsky, Gordijn, & Otten, 2008). Seeking to fulfill their interests in the power struggle, individuals should be attuned to cues that indicate chances of losing or gaining power (Greer & Van Kleef, 2010).

We postulate that status striving goals are informed by specific emotion cues, given emotions' quality to convey information to an observer about a sender's social intentions (Fischer & Manstead, 2008; Keltner & Kring, 1998; Van Kleef, 2009). Anger displays are particularly relevant in the context of power disputes. Anger signals an aggressive tendency and antagonistic dominance (Davis et al., 2011; Hess, Adams, & Kleck, 2009). Accordingly, expressions of anger have been linked with increases in status and power (Brescoll & Uhlmann, 2008; Tiedens, 2001). Attention to others' anger may therefore be useful for high-power individuals who face the threat of losing an illegitimate position.

It stands to reason that attention to potential threat signals such as anger expressions is also important for low-power individuals, because they face more situational constraints, have less control over resources, and are more vulnerable to attack (Fiske, 1993). However, low-power individuals' attention to anger might rely less on the level of legitimacy associated with their subordinate position. This is because the threat signaled by anger is equally relevant for legitimate and illegitimate low-power individuals, given that low-power individuals are inherently vulnerable regardless of the legitimacy of the power balance.

In contrast, attention to fear may be differentially relevant for subordinates with legitimate and illegitimate positions. Fear communicates weakness, need for assistance, and lack of control over the situation (Davis et al., 2011; Frijda, Kuipers, & Ter Schure, 1989). Attention to others' fear may thus be especially relevant for illegitimately low-power individuals who are motivated to gain more power by attacking apparently vulnerable power-holders (Fischer & Manstead, 2008).

Hypotheses and Overview of Studies

Considering the above, we propose that individuals' attention to emotions depends on the perceived legitimacy of their power position and the relevance of the specific emotion within that social context. Given this theoretical framework we predicted differences between legitimate and illegitimate conditions of power. Compared with individuals in a legitimate power relationship, we propose that illegitimately powerful individuals are more attentive to anger expressions, whereas illegitimately powerless individuals are more attentive to fear expressions.

In research paradigms that assess individuals' emotional abilities, attention to emotions is usually operationalized in terms of the speed or accuracy of individuals' responses (Yiend, 2010). Because there is often a speed-accuracy trade-off in emotional ability tasks (Lindquist, Barrett, Bliss-Moreau, & Russell, 2006), we assessed both the speed and the accuracy of participants' responses as separate indices of attention to others' emotions.

Consequently, in Study 5.1 we examined whether illegitimately powerful individuals would be faster in detecting the appearance of anger expressions than legitimately powerful individuals (*Hypothesis 1*). In Study 5.2 we investigated whether the illegitimately powerful would be slower in judging the disappearance of anger expressions than the legitimately powerful (*Hypothesis 2*). We expected that powerless individuals would not differ in detecting the appearance and disappearance of anger in a legitimate versus illegitimate hierarchy, because anger is equally relevant for them in both cases given their inherent vulnerability. In Study 5.3, we tested whether illegitimately powerful individuals would be more accurate in recognizing anger expressions (*Hypothesis 3a*), whereas illegitimately powerless individuals would be more accurate in recognizing fear expressions (*Hypothesis 3b*). We specified no hypothesis about a potential main effect of legitimacy on attention to emotions, because we are not aware of relevant theory that could inform such a hypothesis.

We investigated Hypotheses 1 and 2 using two different anger detection tests and Hypotheses 3a and 3b using an emotion recognition test including eight different emotions. In Study 5.3 we further explored whether participants' experienced emotions would account for their attention to specific emotions of others in order to shed some initial light on possible underlying mechanisms.

The procedure we followed was similar across the studies. Participants were invited to the lab in groups of two or more persons, because we wanted them to believe that they would be paired with another participant to complete a study that consisted of three parts; first, two individual tasks that would be performed in separate rooms and then a joint task that would be performed with their partner (procedure adapted from Côté et al., 2011). In reality participants completed the study in separate cubicles from which they could not see each other. In Part 1, we first manipulated participants' power role and then manipulated legitimacy (Studies 5.1 and 5.3) or estimated participants' baseline sense of power (i.e., trait power) as an alternative operationalization of legitimacy based on the discrepancy between participants' power role and trait power (Study 5.2). In Part 2, participants completed a task measuring attention to others' emotions. Finally, participants were told that Part 3 (the joint task) would not take place in the interest of time, and they were debriefed, compensated, and dismissed.

Overview of Analyses

After checking the manipulations of power and legitimacy, we examined the main hypotheses in three stages that were similar across studies. In all analyses, power role was coded as -1 for subordinates and 1 for leaders, legitimacy condition was coded as -1 for legitimacy and 1 for illegitimacy, and trait power was centered on the sample mean. Participants' scores on all measured variables were standardized to facilitate meta-analytical integration (see below).

In the first stage, we carried out a multiple regression analysis where each dependent variable was predicted by participants' power role, legitimacy condition (or participants' trait power in Study 5.2), and the interaction between power role and legitimacy (or between power role and trait power in Study 5.2). In the second stage, we probed the interaction effect observed in the previous stage by estimating the effect of legitimacy (or trait power) on each dependent variable separately for leaders and subordinates (simple-slope analyses). In the third stage, we entered the individual regression coefficients and their 95% confidence intervals (CIs) obtained from the simple-slope analyses into a meta-analytic model to examine whether the effect of legitimacy on attention to anger differs between leaders and subordinates across the three studies.

Study 5.1

Method

Participants and design. We did not have specific expectations regarding effect size because, to our knowledge, our research question has never been addressed by past studies. We therefore relied on our experience with similar tasks in our lab and aimed for 20–25 participants per condition. Our final sample comprised 88 students (59 women; $M_{\text{age}}=21.55$ years, $SD=3.81$) who were randomly assigned to the leader or the subordinate role (power role manipulation) according to a legitimate or illegitimate procedure (legitimacy manipulation). Two participants were excluded from the analyses because the first one gave no responses and the second one did not believe the cover story.

Materials and procedure. In Part 1, we used a validated procedure (Lammers et al., 2008) to manipulate power and legitimacy through bogus feedback on a set of eight items that was completed at the beginning of the experiment and was presented as a leadership aptitude test (e.g., “I think that a good leader rules with an iron hand”). Participants in the *legitimate* powerful (powerless) condition learned that they had done well (poorly) compared to their partner and would therefore be assigned the leader (subordinate) role. Participants in the *illegitimate* powerful (powerless) condition learned that they had done poorly (well) and would normally be the subordinate (leader) but instead would be assigned the leader (subordinate) role due to the need for an equal distribution of men and women across roles. To emphasize these roles, the experimenter asked the leaders (subordinates) to sign a contract stating that they would evaluate (be evaluated by) their partner after Part 3. Moreover, the experimenter placed a role tag with the word “Leader” (“Subordinate”) in front of the participants and left a sheet of paper containing both partners’ manipulated scores on the leadership aptitude test. Finally, we gave leaders the possibility to influence the outcome of a lottery that would take place at the end of the experiment by asking them to distribute an uneven number of lottery tickets between themselves and their partner.

In Part 2, participants performed an anger detection test, which was an adapted version of the morph movie paradigm (Niedenthal, Halberstadt, Margolin, & Innes-Ker, 2000). Participants watched 10-second movies depicting faces whose emotional expression was gradually changing from neutral to full-blown anger (see Appendix 5.A, upper array). Participants were instructed to press a button as soon as they saw the onset of an anger expression. There was 1 practice trial followed by 8 test trials.⁶ We estimated the speed of detecting the appearance of anger by averaging the reaction times across the 8 test trials.⁷

Before telling participants that Part 3 (joint task) would not take place, we used a verbal funnel debriefing method to check whether the experimental procedure raised any suspicions and whether our manipulations were credible. No participant guessed the true purpose of the study and only one disbelieved the role manipulation.

⁶ The practice trials that preceded the test trials were clearly demarcated and introduced as such. Participants’ responses during the practice trials were not included in the analyses because participants were explicitly instructed that the practice trials are meant to familiarize themselves with the task at hand.

⁷ Before testing our hypothesis we examined the distribution of anger detection reaction times. Skewness (.14, $SE=0.26$), kurtosis (.49, $SE=0.51$), and the Shapiro-Wilk test of normality ($S-W=.98$, $df=86$, $p=.24$) suggested that normality was a reasonable assumption. Additionally, the histogram displayed a relatively bell-shaped distribution and the boxplot did not suggest the presence of outliers. These indices provide evidence that the assumption of normality was met.

Results and Discussion

Multiple regression analysis showed no significant main effects of power or legitimacy on average speed of detecting the onset of anger. It did reveal the anticipated interaction effect between power and legitimacy (see Table 5.1 for standardized coefficient estimates). Probing of the interaction effect showed that leaders were faster at detecting the onset of anger in the illegitimate ($M=4596$, $SD=1161$) rather than legitimate condition ($M=5216$, $SD=888$), $\beta=-.29$, $t(41)=-1.96$, $p=.057$, 95% CI [-.59, .01], whereas subordinates did not differ in their speed of detecting the onset of anger (legitimacy: $M=4662$, $SD=847$ vs. illegitimacy: $M=4939$, $SD=1118$), $\beta=.14$, $t(41)=0.92$, $p=.363$, 95% CI [-.17, .45]. The interaction effect is depicted in Figure 5.1.

Study 5.1 thus revealed that high-power individuals detected the appearance of anger faster when they had an illegitimate rather than legitimate position, supporting Hypothesis 1. These results suggest that illegitimately powerful individuals are more attuned to expressions of anger than legitimately powerful individuals, which enables them to detect relatively subtle anger expressions. In Study 5.2 we aimed to replicate and extend the Study 5.1 finding by incorporating several methodological adaptations.

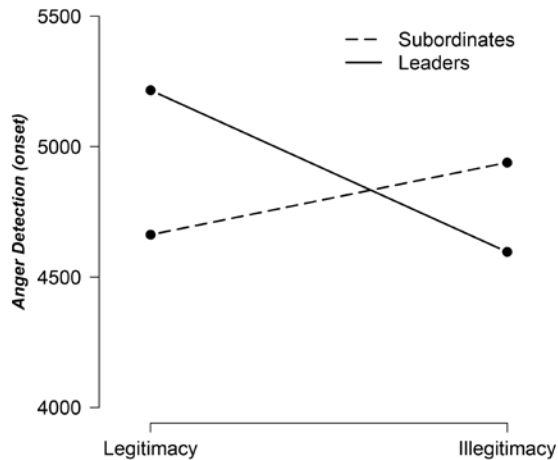


Figure 5.1. Mean detection time (in milliseconds) of the appearance of anger expressions as a function of legitimacy and power role in Study 5.1. Values represent unstandardized scores. Lower values indicate a lower threshold for detecting the appearance of anger (higher attention).

Study 5.2

In Study 5.2, we used an alternative operationalization of legitimacy to test the generalizability of our findings in different settings. Illegitimacy may be experienced when individuals occupy a power role that has been assigned to them through unfair procedures (e.g., our legitimacy manipulation in Study 5.1), but it may also be experienced when people are given a role that does not match their chronic personality traits (Kemper, 1990). For instance, a timid individual may be born into a powerful position as a result of birthright, without him welcoming the responsibilities a powerful position brings. Or, a reluctant yet eminent academic may be appointed dean as a result of scholarship without her being motivated to direct others. Empirical research shows that if an individual with low trait power

Table 5.1

Main and Interaction Effects of Power and Hierarchical Concerns on Emotion Attention Measures across Studies

Emotion Attention Measure	Power				Hierarchical Concerns				Power X Hierarchical Concerns			
	β	<i>t</i>	<i>p</i>	95% CI	β	<i>t</i>	<i>p</i>	95% CI	β	<i>t</i>	<i>p</i>	95% CI
Study 51												
Anger Detection (onset)	.01	0.02	.987	[-.21, .21]	-.08	-0.70	.485	[-.29, .14]	-.22	-2.02	.046	[-.43, -.01]
Study 52												
Anger Detection (onset)	.02	0.31	.757	[-.12, .16]	.03	0.27	.789	[-.17, .22]	.20	2.07	.040	[.01, .40]
Anger Detection (offset)	-.02	-0.28	.777	[-.16, .12]	-.03	-0.30	.768	[-.23, .17]	-.21	-2.06	.041	[-.40, -.01]
Study 53												
Anger Recognition	<.01	0.01	.997	[-.20, .20]	.12	1.26	.211	[-.07, .32]	.16	1.63	.106	[-.04, .36]
Fear Recognition	-.04	-0.40	.694	[-.24, .16]	.06	0.55	.581	[-.14, .25]	-.20	-2.00	.048	[-.39, -.01]

Note. Power was coded as -1 for subordinates and 1 for leaders. Hierarchical concerns were operationalized as illegitimacy in Studies 1 and 3, and as mismatch between power role and trait power in Study 5.2. Legitimacy was coded as -1 for the legitimacy condition and 1 for the illegitimacy condition. Trait power was centered at the sample mean. *t* test degrees of freedom were 82 in Study 5.1, 194 for the onset task and 193 for the offset task in Study 5.2, and 97 in Study 5.3.

lands a high-power role, the resulting mismatch between desire to “fly below the radar” and current high-power position motivates status concerns and generates negative affective states (Josephs, Newman, Brown, & Beer, 2003; Josephs, Sellers, Newman, & Mehta, 2006; Newman, Sellers, & Josephs, 2005; Rohwer, 1977).

An illustrative study showed that temporarily dominant individuals became more attentive to threatening stimuli. Specifically, women (who have lower testosterone levels than men) showed more vigilant responding to angry, potentially status-threatening faces after being administered a testosterone injection rather than a placebo injection (van Honk et al., 2001). This finding may be explained by the discrepancy between women’s elevated state dominance after receiving testosterone and their comparatively lower trait dominance. This finding suggests that low trait power individuals might experience a high-power role as illegitimate because they lack a dominating personality and their disputable position may be challenged (van Honk et al., 1999). Similarly, high trait power individuals might consider a low-power role illegitimate because it deprives them of the power-related benefits that they feel entitled to (De Cremer & Van Dijk, 2005; Piff, 2013). Based on this rationale, we operationalized legitimacy of power in Study 5.2 by considering the (mis)match between participants’ trait power and assigned power roles.

In addition, we tried to rule out an alternative explanation to the main finding of Study 5.1. Illegitimate high-power individuals might have been faster at detecting the appearance of anger not because they were more attentive to anger expressions but because they wanted to make themselves feel justified in their current position by making a faster, more decisive judgment. We therefore included an alternative anger detection test in which participants had to suppress a fast response as an indication of their attention to anger displays.

Method

Participants and design. Study 5.2 employed a design that included a categorical (power role) and a continuous (trait power) independent variable. To ensure that we would have a sufficient number of participants with higher and lower trait power within the high- and low-power role conditions, we recruited a larger sample. Two-hundred-and-one students (146 women; $M_{\text{age}}=21.63$ years, $SD=2.90$) were randomly assigned to the leader or the subordinate role. Before the power role manipulation, we measured participants’ trait power. Two participants were excluded for disbelieving the cover story. Furthermore, one participant’s data at the onset task were not recorded due to computer failure, and two participants’ data at the offset task were excluded because they produced extreme values (i.e., outliers) in all of the trials (see below).

Materials and procedure. In Part 1, we first measured participants’ trait power with the Personal Sense of Power scale (Anderson, John, & Keltner, 2012). A sample item is “In my relationships with others I think I have a great deal of power” ($\alpha=.77$). After some filler tasks, we manipulated participants’ power role by randomly assigning participants to the leader or the subordinate role. In Part 2, participants performed two anger detection tests and then we measured felt powerfulness and perceptions of legitimacy of the role distribution to check the manipulation of power and whether the perceived fairness of the power role depends on participants’ trait power.

Anger detection tests. Participants first watched 100-frame movies depicting individuals whose emotional expression was gradually changing from neutral to full-blown anger and they had to indicate the onset of the anger expression by pressing a button. They then watched movies depicting individuals whose emotional expression was gradually changing from a full-blown anger expression to a neutral one and they had to indicate the offset of the anger expression (see Appendix 5.A, bottom array). For each test, there were 3 practice trials followed by 16 test trials. For the onset trials we used all stimuli from Study 5.1 and we further constructed twice as many anew in order to improve the reliability of the anger detection tests. For the offset trials we simply played the onset movies backwards (Niedenthal et al., 2000). The measurement of reaction time was made in movie frames. We estimated participants' scores by averaging the selected movie frames across the 16 test trials.

Treatment of anger detection latency scores. The distribution of the individual latency scores was positively skewed for the onset task and negatively skewed for the offset task. To normalize the positively skewed distribution of the onset task and the negatively skewed distribution of the offset task, we excluded trials whose response latency was more than 2 standard deviations above and below the median, respectively (Ratcliff, 1993). This resulted in the exclusion of 2% of the onset trials and 2.8% of the offset trials. This treatment resulted in normalized distributions.

Manipulation check. We measured experienced powerfulness using a 6-item scale ($\alpha=.80$) and perceived legitimacy of the role distribution using a 5-item scale ($\alpha=.89$). Sample items are "I feel powerful" and "I think the role distribution was fair", respectively.

Results and Discussion

Manipulation check. To test whether the manipulation of power role was successful and whether the measurement of trait power afforded a successful operationalization of legitimacy, we first regressed felt powerfulness and then perceived legitimacy of the role distribution on participants' assigned power role, their trait power, and the interaction between the two. The first regression analysis showed a main effect of power role on felt powerfulness, $\beta=.38$, $t(195)=5.78$, $p < .001$, 95% CI [.25, .51], with leaders feeling more powerful ($M=4.71$, $SD=0.96$) than subordinates ($M=3.94$, $SD=0.90$). The second regression analysis showed an interaction effect of state and trait power on the perceived legitimacy of the role distribution, $\beta=.20$, $t(195)=2.02$, $p=.045$, 95% CI [.01, .39]. Probing of the interaction effect showed that the higher the subordinates' trait power was, the less fair they tended to perceive the role distribution, $\beta=-.20$, $t(98)=-1.41$, $p=.161$, 95% CI [-.49, .08], and the higher the leaders' trait power was, the fairer they tended to consider the role distribution, $\beta=.20$, $t(97)=1.45$, $p=.152$, 95% CI [-.07, .47]. Even though the results of the simple-slope analyses did not reach the conventional level of significance, the logic of the (mis)match between state and trait power is best captured by the interaction effect that was significant. Our confidence in the data is further bolstered by the fact that the current operationalization has been reliably used in past research that investigated related questions (Josephs et al., 2003; 2006).

Hypotheses testing. Multiple regression analysis showed no significant main effects of power role or trait power on the detection time of the onset of anger expressions or the detection time of the offset of anger expressions. There were however significant interaction effects of power role and trait power on both measures (see Table 5.1). Probing of the interaction effects showed that the lower leaders' trait power was, the faster they tended to be in detecting the onset of anger, $\beta=.23$, $t(97)=1.63$, $p=.106$, 95% CI [-.05, .51], and the slower

they tended to be in judging the offset of anger, $\beta = -.23$, $t(98) = -1.81$, $p = .073$, 95% CI [-.49, .02]. Subordinates' detection time of the onset and offset of anger did not significantly vary as a function of trait power (onset: $\beta = -.18$, $t(97) = -1.23$, $p = .200$, 95% CI [-.45, .01]; offset: $\beta = .18$, $t(95) = 1.16$, $p = .248$, 95% CI [-.12, .48]). The interaction effects are depicted in Figure 5.2.

In conclusion, Study 5.2 suggests that, when leadership is thrust upon individuals with lower trait power, they are faster to detect others' anger and they perceive others' angry expressions to persist longer, presumably because their illegitimate and precarious power position makes them more vigilant to possible signals of impending threat. The finding that low trait power individuals in leadership roles were slower in judging the disappearance of anger rules out the alternative explanation that their faster detection of anger is due to their need to justify their position by making a faster judgment.

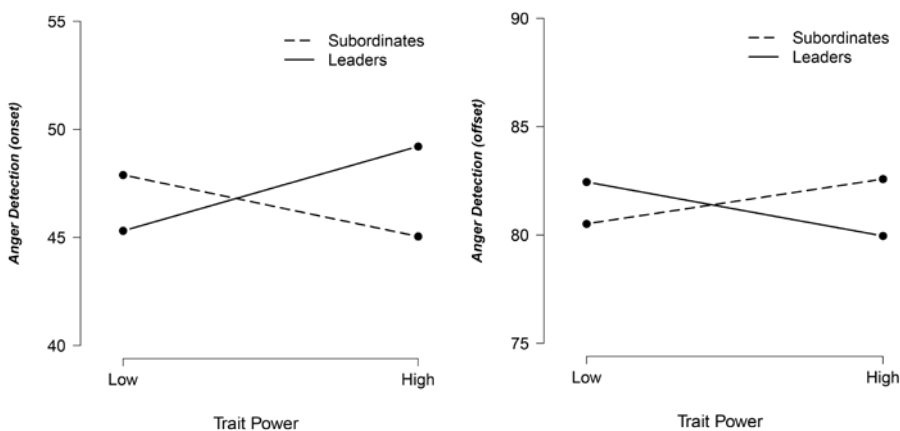


Figure 5.2. Mean detection time of the appearance (left panel) and disappearance (right panel) of anger expressions as a function of trait power and power role in Study 5.2. Means represent the selected movie frame and are plotted at 1 standard deviation below and above the mean of trait power. Values represent unstandardized scores. Lower values indicate a lower threshold for detecting the appearance of anger in the left panel (higher attention) and the disappearance of anger in the right panel (lower attention). Lower state power in the leader role and higher state power in the subordinate role indicate a greater "mismatch" and thereby higher hierarchical concerns.

Study 5.3

In Study 5.3 we aimed to generalize our effects to a different measure of attention to emotion, rule out an alternative account of the previous findings, and shed some light on potential underlying processes.

First, we measured attention to emotions by means of an emotion recognition test that included eight different emotions. This test assessed the accuracy of participants' attention to specific emotions, which allowed us to examine whether our effects generalize to the accuracy aspect of emotional attending or whether they are only limited to the speed aspect. Furthermore, this test allowed us to examine whether high-power individuals' attention is anger-specific and low-power individuals' attention is fear-specific.

Second, we examined an alternative explanation to the findings of Studies 5.1 and 5.2. Namely, research shows that high-power people are more goal-oriented, which may lead to better compliance with task instructions and thus better performance (Guinote, 2007). One could thus argue that illegitimate high-power participants wanted to justify their position by showing higher task compliance, which could have resulted in better performance in Studies 5.1 and 5.2.⁸ If this account is valid, then illegitimate leaders should show better performance not only in recognizing anger but also in their recognition of other emotions.

Third, we aimed to shed some light on potential mechanisms that could explain the effects of illegitimacy on attention to specific emotions. In an illegitimate hierarchy, we would expect power-holders to defend their precarious position in order to maintain it, and subordinates to move against the power-holders in order to restore injustice and advance their position. Considering, however, that these behaviors are neither socially desirable nor viable responses in a lab setting, we tried to tap into these processes by assessing individuals' experienced emotions, since the emotions people experience often reveal their mental states and action tendencies (Frijda & Mesquita, 1994). For example, happiness may reveal a propensity to affiliate, and anger a propensity to attack. We therefore assessed emotional states that were relevant in the context of illegitimate hierarchies, such as uneasiness for illegitimate leaders and irritation for illegitimate subordinates (Feather & Sherman, 2002; Smith et al., 2008).

Method

Participants and design. Given that Study 5.3 had a similar design to Study 5.1 we again aimed for 20–25 participants per condition. Our final sample consisted of 104 students (73 women; $M_{\text{age}}=22.34$ years, $SD=5.08$) who were randomly assigned to a 2 (power role: leaders vs. subordinates) X 2 (legitimacy: legitimate vs. illegitimate) between-subjects design. Three participants were excluded for disbelieving the cover story. In the context of an expected face-to-face interaction with their partner in the complementary power role, participants were asked to identify several discrete emotional expressions, which included the focal expressions of anger and fear.

Materials and procedure. The manipulations of power and legitimacy in Part 1 were similar to the ones used in Study 5.1. In Part 2 participants learned that they would watch pictures of former participants in their partner's role taken by a web camera during the joint task of the experiment, and that their task would be to label those participants' emotional states.⁹ Actually, participants were not presented with pictures of other participants, but of a random group of models from a standardized stimulus set, displaying several emotions. After this emotion recognition test, we assessed participants' affective states. We also measured felt powerfulness and perceptions of fairness to check the manipulation of power and legitimacy, respectively.

Emotion recognition test. Although our focus was on anger and fear, we included additional expressions to increase the ecological validity of the study and to prevent

⁸ We are grateful to an anonymous reviewer who proposed this alternative explanation. Although we did not consider the confutation of this explanation a priori, we included it among the methodological remedies of Study 5.3 because the concerns raised by the alternative explanation can be addressed by the results of this study.

⁹ This statement was intended to increase the implicit sociality of the task so that we could study emotion recognition in the context of complementary power roles. To increase credibility, we asked participants' consent to be filmed during the experiment.

participants from using simplistic categorization rules (Russell, 1994). We included four emotions commonly used in past studies (i.e., anger, fear, happiness, and sadness) and four additional emotions that are typically confused with them, namely disgust, surprise, pride, and embarrassment. Specifically, morphological similarities occur between anger and disgust, fear and surprise, happiness and pride, and sadness and embarrassment (Hawk, Van Kleef, Fischer, & Van der Schalk, 2010; Rosenberg & Ekman, 1995).

We used 40 pictures of low expressivity from the Amsterdam Dynamic Facial Expressions Set (ADFES; Van der Schalk, Hawk, Fischer, & Doosje, 2011; see Appendix 5.B). The first 8 pictures (one for each emotion) were used in the practice trials and the remaining 32 pictures (4 actors X 8 emotions) were used in the test trials. The pictures were sized to 800 X 800 pixels and projected at the centre of the screen for 4 s. Participants were then prompted to give their answer by clicking on one of the 8 emotion labels appearing at the bottom of the screen and at an equal distance from an obliterated circle. To avoid speeded responses, we explicitly told participants that we were not interested in how fast they responded but in how accurate their responses were. We also fixed the duration of the response window so that participants realized that speed of responding was inconsequential.

Estimation of emotion recognition accuracy. Research on emotion recognition often relies on the estimation of "raw hit rates". Raw hit rates, however, are problematic for comparing recognition of different emotions, as perceivers might differentially favor the use of certain emotion labels. These biased responses might inflate the recognition score of the preferred emotion category. For this reason, an alternative measure has been developed – the "unbiased hit rate" (Wagner, 1993), which was used in the current study.¹⁰

Furthermore, given that our stimulus set included pairs of morphologically similar emotions, we anticipated that each emotion would be more frequently confused with its morphologically similar counterpart than with the remaining emotions – a nuance that is not adequately captured by unbiased hit rates. Indeed, a confusion matrix revealed that there were both response biases and significant confusions in participants' responses (see Table S5.1 of the Supplementary Material Chapter 5). To account for both biased responses and significant confusions within each emotion pair, we implemented a transformation of Wagner's formula to estimate each participant's recognition accuracy scores for each of the eight emotion categories.

Specifically, instead of the basic 2-point scoring system used in Wagner's formula (in which a 1 is awarded for every correct answer and a 0 otherwise), we implemented a 3-point scoring system in which participants received a 2 when they chose the correct emotion, a 1 when they chose the morphologically similar emotion, and a 0 otherwise. To illustrate, a person who perceives anger as disgust (1 point) is less accurate than a person who perceives anger as anger (2 points) but more accurate than a person who perceives anger as embarrassment (0 points; see also Bänziger, Grandjean, & Scherer, 2009, for a distinction between coarse and fine-grained emotion differentiation). For example, if an individual correctly decodes two of four anger stimuli (a raw hit rate of .50), confuses the third with

¹⁰ For a given stimulus-response pair, the raw hit rate is calculated by the formula (Correct uses of the response/Number of target stimuli), and the unbiased hit rate by the formula (Correct uses of the response²/(Number of target stimuli*Total uses of the response)).

disgust and the forth with embarrassment, and labels a total of 5 stimuli as "anger," her unbiased hit rate for anger according to a 2-point scoring system is $(2 \cdot 1 + 2 \cdot 0)^2 / (4 \cdot 5) = .20$, but according to a 3-point scoring system is $(\langle 2 \cdot 2 + 1 \cdot 1 + 1 \cdot 0 \rangle / 2)^2 / (4 \cdot 5) = .31$.

The unbiased hit rates range from 0 to 1 (perfect score). Since these values are proportional, we arcsine-transformed the scores prior to analyses (Wagner, 1993). The maximum score was thus 1.57, the arcsine of 1.

Experienced emotions. Participants rated their feelings of uneasiness and irritation by rating 3 adjectives for each state on a scale from 1 (*not at all*) to 7 (*very much*). Sample items are "*I feel ashamed*" for uneasiness ($\alpha = .71$) and "*I feel disturbed*" for irritation ($\alpha = .79$). These adjectives were presented in random order and were included among other emotion adjectives assessing negative affect ($\alpha = .89$), positive affect ($\alpha = .79$), and self-satisfaction ($\alpha = .73$). The negative affect adjectives were included as control variables because the low power role in itself could have increased the experience of negative affect (Berdahl & Martorana, 2006), which in turn can decrease accuracy (Ambady & Gray, 2002; Chepenik, Cornew, & Farah, 2007). The positive affect and self-satisfaction adjectives were included to balance the content of the questionnaire.

Manipulation check. We measured experienced powerfulness with the adjectives "decisive", "strong", "powerful", "in control", "leader-like", and the reverse coded "compliant" ($\alpha = .89$), and perceived legitimacy of the role distribution with the adjectives "fair", "right", "appropriate", "just", "unacceptable", and "illegitimate", with the last two adjectives being reverse coded ($\alpha = .84$). These adjectives were rated on a 7-point scale (1=*not at all* to 7=*very much*).

Results

Manipulation checks. To test whether the manipulations of power role and legitimacy were successful, we regressed felt powerfulness and perceived legitimacy of the role distribution on participants' power role, legitimacy condition, and the interaction between the two.

The first regression analysis showed a main effect of power role on felt powerfulness, $\beta = 0.84$, $t(97) = 8.91$, $p < .001$, 95% CI [0.65, 1.03], with leaders feeling more powerful ($M = 4.99$, $SD = 0.87$) than subordinates ($M = 3.31$, $SD = 1.02$). There was no main effect of legitimacy and no interaction effect between power role and legitimacy on felt powerfulness.

The second regression analysis showed a main effect of legitimacy on perceived legitimacy, $\beta = -0.29$, $t(97) = -3.30$, $p = .001$, 95% CI [-0.46, -0.12], such that participants in the legitimate condition perceived the role distribution as fairer ($M = 4.34$, $SD = 0.79$) than participants in the illegitimate condition ($M = 3.77$, $SD = 1.02$). There was also a main effect of power role on perceived legitimacy, $\beta = 0.26$, $t(97) = 2.94$, $p = .004$, 95% CI [0.08, 0.43], which revealed that leaders perceived the role distribution as fairer ($M = 4.30$, $SD = 0.69$) than subordinates ($M = 3.80$, $SD = 1.12$). This latter effect is consistent with evidence that authorities perceive power hierarchies as more justified than lower-ranked individuals (Smith et al., 2008). There was no significant interaction between power role and legitimacy.

Hypotheses testing. Participants' unbiased recognition scores for anger and fear expressions were submitted to a 2 (power role: subordinate vs. leader) X 2 (legitimacy: legitimate vs. illegitimate) X 2 (emotion: anger and fear) repeated-measures ANOVA with the first two factors as between-subjects variables and the third factor as repeated-measures variable. First, a main effect of emotion expression emerged, $F(1, 97) = 29.16$, $p < .001$, $\eta_p^2 = .23$,

with anger expressions being recognized more accurately ($M=0.93$, $SD=0.47$) than fear expressions ($M=0.61$, $SD=0.41$).

Second, the anticipated three-way interaction of participant's power, legitimacy, and partner's emotional expression emerged, $F(1, 97)=6.70$, $p=.01$, $\eta_p^2=.07$, indicating that power and legitimacy affected recognition of anger and fear expressions differently. To break down the three-way interaction effect we separately regressed anger recognition scores and fear recognition scores on power role, legitimacy, and their interaction. These multiple regression analyses showed no main effects of power role or legitimacy on anger or fear recognition scores. They did show a marginal interaction effect of power role and legitimacy on anger recognition and a significant interaction effect on fear recognition (see Table 5.1). Probing of the two-way interaction effects showed that leaders were more accurate in recognizing their partners' anger expressions when the role assignment was illegitimate ($M=1.05$, $SD=0.47$) rather than legitimate ($M=0.78$, $SD=0.42$), $\beta=.28$, $t(50)=2.12$, $p=.039$, 95% CI [.02, .55], whereas subordinates did not differ in their anger recognition (legitimacy: $M=0.97$, $SD=0.47$ vs. illegitimacy: $M=0.93$, $SD=0.51$), $\beta=-.04$, $t(47)=-0.25$, $p=.802$, 95% CI [-.33, .25]. Subordinates, on the other hand, were more accurate in recognizing their partners' fear expressions when the role assignment was illegitimate ($M=0.73$, $SD=0.39$) rather than legitimate ($M=0.52$, $SD=0.38$), $\beta=.25$, $t(47)=1.90$, $p=.064$, 95% CI [-.02, .52], whereas leaders did not differ in their fear recognition (legitimacy: $M=0.65$, $SD=0.39$ vs. illegitimacy: $M=0.53$, $SD=0.47$), $\beta=-.14$, $t(50)=-0.99$, $p=.329$, 95% CI [-.44, .15]. The interaction effects are displayed in Figure 5.3. These results support Hypotheses 3a and 3b.

Exploratory analyses revealed no interaction effect of power and legitimacy on participants' recognition scores of the non-focal emotions or on overall emotion recognition scores (i.e., the average of the eight emotion recognition scores). Furthermore, after controlling for disgust recognition, illegitimate leaders were still better at recognizing anger expressions than legitimate leaders, $\beta=0.29$, $t(49)=2.41$, $p=.020$, 95% CI [0.05, 0.53], and after controlling for surprise recognition, illegitimate subordinates still tended to be better at recognizing fear expressions than legitimate subordinates, $\beta=0.25$, $t(46)=1.85$, $p=.070$, 95% CI [-0.02, 0.51]. These analyses suggest that the interactive effect of power and legitimacy is emotion-specific.

Experienced emotions. There were no main or interaction effects of power and legitimacy on participants' self-reported negative affect, positive affect, and self-satisfaction. There were also no main effects of power and legitimacy on uneasiness and irritation, but there was an interaction effect on both measures (see Table 5.2). Probing of the interaction effects showed that leaders experienced more uneasiness in the illegitimate ($M=6.41$, $SD=0.58$) rather than legitimate condition ($M=5.83$, $SD=1.10$), $\beta=.31$, $t(50)=2.37$, $p=.022$, 95% CI [.05, .57], whereas subordinates did not differ in their feelings of uneasiness (legitimacy: $M=6.00$, $SD=.98$ vs. illegitimacy: $M=5.85$, $SD=0.93$), $\beta=-.08$, $t(50)=-0.56$, $p=.577$, 95% CI [-.38, .21]. Conversely, leaders reported no differential irritation (legitimacy: $M=2.87$, $SD=1.28$ vs. illegitimacy: $M=2.55$, $SD=1.17$), $\beta=-.13$, $t(50)=-0.94$, $p=.350$, 95% CI [-.40, .14], but subordinates reported feeling more irritated in the illegitimate ($M=3.13$, $SD=1.40$) rather than legitimate condition ($M=2.36$, $SD=1.10$), $\beta=.30$, $t(47)=2.13$, $p=.039$, 95% CI [.02, .59].

We conducted bootstrapped mediation analyses to explore whether participants' felt uneasiness and irritation could account for the interactive effects of power and legitimacy on emotion recognition. Among leaders, the indirect effect of legitimacy on anger recognition through uneasiness was significant with a point estimate of 0.10 and a 95% bootstrap CI of .03

Table 5.2

Main and Interaction Effects of Power and Legitimacy on Experienced Emotions in Study 5.3

Experienced Emotion	Power				Legitimacy				Power X Legitimacy			
	β	<i>t</i>	<i>p</i>	95% CI	β	<i>t</i>	<i>p</i>	95% CI	β	<i>t</i>	<i>p</i>	95% CI
Positive Affect	.02	0.17	.863	[-.18, .22]	.07	0.68	.500	[-.13, .27]	<.01	0.02	.983	[-.20, .20]
Negative Affect	-.08	-0.84	.402	[-.28, .11]	-.03	-0.30	.762	[-.23, .17]	-.15	-1.48	.143	[-.35, .05]
Self-satisfaction	-.10	-0.99	.327	[-.30, .10]	.06	0.59	.557	[-.14, .26]	.02	0.16	.872	[-.18, .22]
Uneasiness	.11	1.09	.279	[-.09, .30]	.11	1.16	.247	[-.08, .31]	.20	2.00	.048	[.01, .39]
Irritation	-.01	-0.13	.901	[-.13, .27]	.09	0.90	.371	[-.11, .28]	-.22	-2.20	.031	[-.41, -.02]

Note. Power was coded as -1 for subordinates and 1 for leaders. Legitimacy was coded as -1 for legitimacy and 1 for illegitimacy. *T* test degrees of freedom were 97.

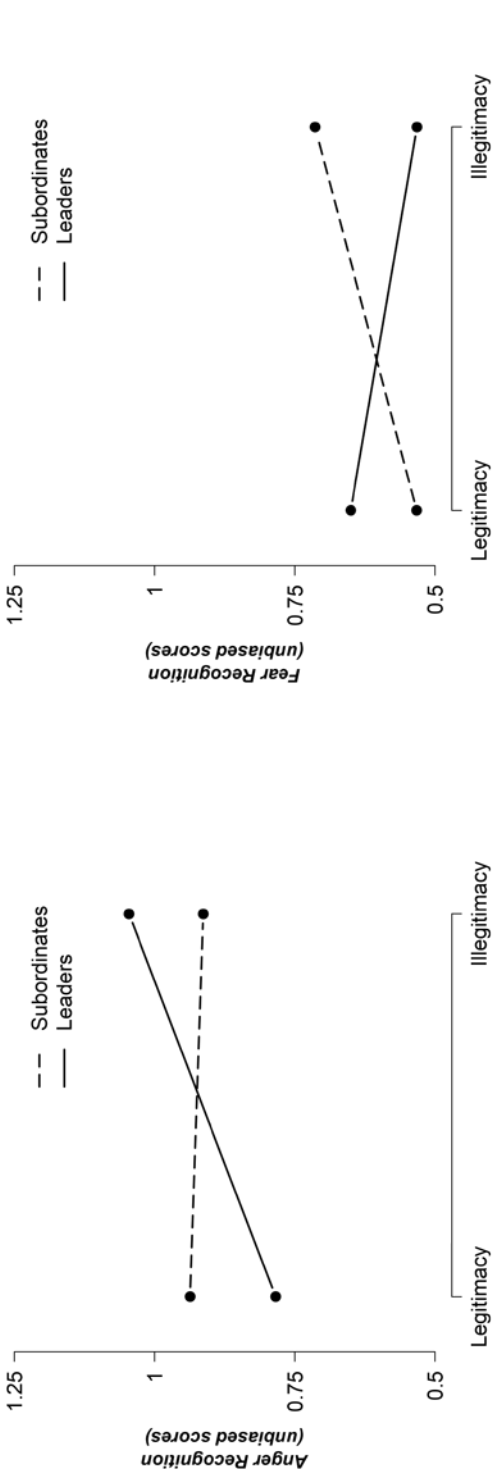


Figure 5.3. Mean unbiased recognition scores of anger (left panel) and fear (right panel) as a function of legitimacy and power role in Study 5.3. Values represent unstandardized scores. Lower values indicate lower anger or fear recognition (lower attention).

to .23. Among subordinates, the indirect effect of legitimacy on fear recognition through irritation did not reach statistical significance (point estimate of 0.08 and 95% bootstrap CI of -.01 to .27).

Meta-analysis

Support for our hypotheses relies on the interactive effects of power and legitimacy on attention to emotion in conjunction with simple-slope analyses testing the effect of legitimacy on attention to emotions separately for leaders and subordinates. Whereas the interactions between power and legitimacy across studies were statistically significant in almost all cases (see Table 5.1), several of the simple-slope analyses were only marginally significant (albeit consistently in the predicted direction). We therefore performed a meta-analysis to obtain a more reliable estimate of the effect of legitimacy on attention to emotion for the different power groups. Specifically, we combined the effects on the detection of the anger onset in Studies 5.1 and 5.2 and the recognition of anger expressions in Study 5.3. Meta-analysis combines the results of different studies by means of fixed- or random-effects models. We used a fully random-effects approach because we used different methodologies across our studies and because we wanted our results to generalize to other (future) studies that may test the same hypothesis using different study designs (Raudenbush, 2009). Meta-analysis was performed using the Comprehensive Meta-Analysis software (Borenstein, Hedges, Higgins, & Rothstein, 2005).

Meta-analytic results are commonly presented in a forest plot that depicts both the individual effects observed in each study and the overall effects estimated across studies (see Figure 5.4). The left part of the figure presents the regression estimates of the simple-slope analyses for each individual study and the overall effects across leaders and subordinates. The right part of the figure graphically presents these effects with their confidence intervals within a range of 1 *SD* and relative to a reference line set at 0. The individual effects are represented with an empty square and the overall effects are represented with a solid diamond. When the confidence intervals of an effect fall on the right side of the reference line, participants showed greater attention to anger under illegitimacy than under legitimacy; when they fall on the left side, participants showed greater attention to anger under legitimacy than under illegitimacy; and when they fall in between, there was no significant difference in participants' anger attention between the legitimacy and illegitimacy conditions.

Before entering the regression coefficient estimates of the simple-slope analysis for leaders in Study 5.2, we reversed the direction of the estimates because leaders' trait power reflected lower perceived illegitimacy and in all other studies legitimacy was coded as -1 for legitimacy and 1 for illegitimacy, reflecting higher perceived illegitimacy. This transformation was not necessary for subordinates' trait power in Study 5.2 because higher scores already reflected higher perceived illegitimacy. Furthermore, because higher scores on the anger detection tasks of Studies 5.1 and 5.2 reflect lower attention to anger (since one takes more time to detect the emotion), we reverse-coded these scores so that higher scores reflect higher attention to anger to facilitate comparison with Study 5.3, where higher scores reflect higher attention to anger. Note that this led to a double reversal for the coefficients of the simple-slope analysis for leaders in Study 5.2, so that in the end these coefficients remained the same.

Next we investigated whether power role had an impact on the main effect of legitimacy on attention to anger by running a fully random-effects analysis with power role as a categorical moderator (subordinate vs. leader). This analysis showed that the effect of

Anger Attention

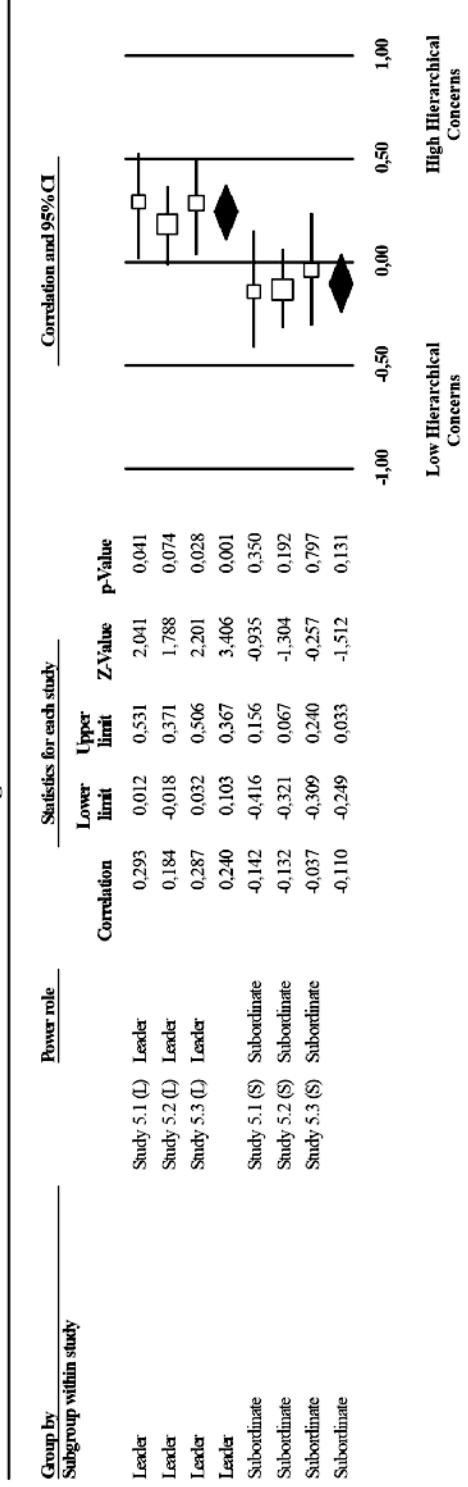


Figure 5.4. Forest plot of attention to anger as a function of hierarchical concerns and power role in Studies 5.1 to 5.3. (L) and (S) stand for leaders and subordinates, respectively. Empty squares represent individual study effects and solid diamonds represent overall effects across studies. Study 5.2 estimates were computed by averaging the estimates obtained from the onset and offset tasks.

legitimacy on attention to anger differed between leaders and subordinates, $Q_{between}(1)=4.56$, $p=.033$. The pattern of the moderation indicated that leaders were more attentive to anger expressions under conditions of illegitimacy than legitimacy, $b=0.27$, $SE=.08$, 95% CI [0.11, 0.43], $Z(3)=3.22$, $p<.001$, whereas subordinates' attention to anger expressions did not vary as a function of legitimacy, $b=0.01$, $SE=.09$, 95% CI [-0.15, 0.18], $Z(3)=0.16$, $p=.877$.

General Discussion

The current research investigated whether the perceived legitimacy of a power relationship influences one's attention to others' emotions. Across three studies, we demonstrated interactive effects of power and legitimacy on attention to others' emotions using two alternative operationalizations of legitimacy and three different measures of emotional attention. In line with our theorizing, leaders were more attuned to anger expressions when their high-power position was perceived to be illegitimate rather than legitimate. On the other hand, subordinates were more attuned to fear expressions when their low-power position was illegitimate rather than legitimate. Conclusions pertaining to anger perception are further bolstered by a meta-analytic synthesis of the results across the three studies.

These findings support the approach/inhibition theory of power (Keltner et al., 2003), which suggests that the legitimacy of the power hierarchy moderates the effects of power, and the reciprocal influence model of social power (Keltner et al., 2008), which posits that the interdependence between high- and low-power individuals regulates the actions of the powerful. In keeping with these theories, we propose that superiors with illegitimate power feel more threatened by the possibility for subordinates to overthrow them than superiors who think that their power is legitimate and thereby feel more confident about their power role. When the hierarchy is illegitimate, leaders may be inclined to defend their position because they do not deserve it. They may therefore look out for cues signaling potential attack, such as anger expressions, which would help them to preempt threats to their position. Subordinates, in contrast, may be inclined to challenge the power hierarchy because it is unfair. They may thus keep their eyes out for signs of weakness, such as fear expressions, which would signal an opportunity to rise against the power-holder.

Exploratory analyses on the emotions participants experienced provide some initial suggestive evidence for these proposed processes. In the last study we saw that when the hierarchy was illegitimate rather than legitimate, those having power felt more uneasy and those lacking power felt more irritated. Furthermore, feelings of uneasiness could explain the interactive effect of power and legitimacy on leaders' attention to anger, but feelings of irritation failed to explain the interactive effect of power and legitimacy on subordinates' attention to fear. We suspect that superiors' uneasiness reflects their tendency to defend and maintain their position, but empirical evidence for this account is only suggestive. It is however possible that superiors are not consciously aware of their tendency to protect their current status and subordinates are similarly not aware of their tendencies to claim more status. And even if they were fully aware of these tendencies, they might be reluctant to admit to them because status-striving is a stigmatized behavior that people actively conceal (Kim & Pettit, 2014). This suggests that the processes we were trying to capture are likely non-conscious and subject to social desirability bias (Fisher, 1993). We therefore recommend that future research employs indirect measures rather than questionnaires to assess these processes.

It is noteworthy that what seems to matter is not the legitimacy of one's power per se – rather, it is the *perception* of legitimacy. Study 5.2 indicates that even when the power

allocation procedures were not biased (i.e., when power roles were randomly assigned), people may still perceive their power role as less legitimate because their chronic sense of power does not let them blend into their role. This has important implications for situations where the distribution of power is regulated by legitimate procedures and objective evaluation criteria. Even though one would expect that legitimate hierarchies are rather stable, our data suggest that subjective perceptions of legitimacy could still make people more attentive to threat-related emotions. Susceptibility to threat signals may in turn instigate a power struggle that subverts the hierarchy – leaders feeling out of place attend to others' anger in an attempt to maintain their position, and followers feeling unfairly subjugated attend to others' fear so they can challenge the status quo.

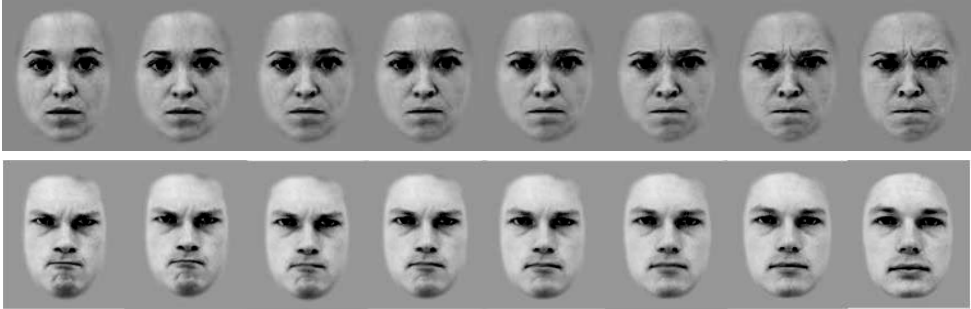
Another significant contribution of our research is the finding that power and legitimacy shape people's attention to specific emotions (i.e., anger and fear) rather than to emotions in general. In line with emotion theories that stress the social nature of emotions (Fischer & Manstead, 2008; Frijda & Mesquita, 1994; Van Kleef, 2009), we propose that illegitimate leaders and subordinates were more susceptible to anger and fear expressions, respectively, because of the threat-signaling quality of anger and the vulnerability-signaling quality of fear in the context of illegitimate power relations. Our focus on specific emotions differentiates the current research from previous studies that investigated the effects of power on emotional attending by averaging participants' scores across emotions (Galinsky et al., 2006; Hall et al., 2006; Schmid Mast et al., 2009). Furthermore, our findings resonate with recent theoretical arguments that perceptual abilities are specialized towards local environmental conditions. Frankenhuys and de Weerth (2013), for instance, showed that children growing up in dangerous environments may exhibit improved detection, learning, and memory on tasks involving danger-related stimuli (e.g., anger expressions) that are ecologically relevant to them, compared with safely nurtured peers.

The aforementioned theories rest on the idea that social processes, like the acquisition of power with illegitimate means, influence attention to emotions by shaping perceivers' motives. A different yet related theoretical account posits that social processes can influence attention to emotions through their impact on perceivers' expectations regarding the emotional reaction of the target (Hess et al., 2009). In an illegitimate hierarchy, for instance, superiors would expect subordinates to be angry about their unjust placement in a low-power position, and subordinates would expect superiors to fear a power loss because of their precarious position. These expectations might in turn enhance the attention people pay to the respective emotions. Future studies could shed further light on the role of motives and expectations, as well as on the interplay between alternative underlying mechanisms.

Contemporary emotion theories suggest that social relations shape how individuals experience, express, regulate, and respond to emotions (e.g., Fischer & Manstead, 2008; Van Kleef, 2009). Building upon and enriching these theories, the current study shows that the legitimacy of power relations determines which emotions individuals are most attuned to. The ability to grasp others' emotions is not a stable skill. It is influenced by social processes in hierarchical settings that change the nature of one's power role and the meaning of others' emotional expressions.

Appendix 5.A

Sample Movies Used in the Emotion Detection Tests in Studies 5.1 and 5.2



Note. The upper array displays sequential stills from a neutral-to-angry video used in the onset test and the bottom array displays sequential stills from an angry-to-neutral video used in the offset test.

Appendix 5.B

Sample Pictures Used in the Emotion Recognition Test in Study 5.3



Note. From left to right and from top to bottom, the emotions expressed are anger, disgust, fear, surprise, happiness, pride, sadness, and embarrassment.

CHAPTER 6

General Discussion

There is a growing body of research on the development of hierarchies as well as on the consequences of norm-violating behavior (Hall et al., 2005; Keltner et al., 2008; Magee & Galinsky, 2008; Ronay et al., 2012; Sapolsky, 2005; Van Kleef et al., 2015). The current dissertation aimed to bring these lines of research together by investigating norm violators' mobility along the levels of hierarchies. Given that social norms – and reactions to violations thereof – do not exist in isolation from the social world, we focused on the role of context to understand people's tendency to support norm violators in higher positions of the hierarchy. More specifically, we examined responses to norm violators across different cultures (Chapter 2), in a domain (art) that affords a greater scope for the expression of divergent ideas (Chapter 3), and in relation to perceivers' position in the hierarchy (Chapter 4). Finally, in light of the importance of hierarchical concerns in understanding people's reactions to norm violators, we examined whether hierarchical concerns would affect fundamental perceptual processes, such as attention to emotions that are relevant in a hierarchical struggle (Chapter 5).

The findings in this dissertation indicate that contextual factors play a major role in understanding norm violators' maneuvers in social hierarchies. In the remainder of this chapter I will first summarize the main findings of our research. I will then discuss the theoretical and practical implications of these findings. Finally, I will elaborate on the strengths and weaknesses of the presented research, and I will propose avenues for future research.

Overview of Main Findings

In Chapter 2 we aimed to explain variation in people's reactions to norm violators by investigating the role of cultural values. Given that norm violations may threaten group harmony and social order, which are endorsed in collectivistic and tight cultures respectively (Gelfand et al., 2011; Kiesler & Kiesler, 1970; Miller et al., 1990), we hypothesized that individuals in more collectivistic and tighter cultures would support norm violators as leaders to a lesser extent than individuals in more individualistic and looser cultures. To elucidate the underlying mechanisms through which cultural values influence leader support tendencies, we further posited that norm violations induce both positive cognitive reactions (power perceptions) and negative affective reactions (moral outrage), which subsequently influence people's behavioral tendencies to support the violator as leader. The results showed that norm violators provoked moral outrage in all cultures studied, but the extent to which individuals experienced these negative moral emotions was dependent on their country's culture: The more collectivistic and tight the culture was, the more moral outrage individuals experienced in reaction to norm violations. These feelings in turn were related to people's reluctance to support violators as leaders. The reduced support for norm violators was stronger in more collectivistic countries where people considered norm violators less powerful than norm followers and, importantly, weaker in rather individualistic countries where people considered norm violators more powerful. Finally, the tendency to support norm followers as leaders was directly related to cultural tightness: The tighter the culture was, the more individuals would support norm followers as leaders. These findings support the idea that cultural values influence people's tendency to reject norm violators as leaders, and this effect is partially explained by people's perceptions of the violator's power and their emotional reactions to the violator's behavior.

In Chapter 3 we investigated whether deviating from the norms in the domain of art enhances an artist's potential to rise to fame. Based on the ideas that shared perceptions of what constitutes a valuable artwork are less rigidly shared when evaluating art and that deviation from default thinking styles is associated with creativity (Förster et al., 2005; Maddux

& Galinsky, 2009), we hypothesized that artists whose style deviates from normative artistic standards would gain greater impact than artists who follow normative standards. Namely, artists whose work deviates from the realistic representation of objects (realism deviance hypothesis), their own previous style (intrapersonal deviance hypothesis), and/or other artists' styles (interpersonal deviance hypothesis) would gain greater impact than artists who follow the various types of norms. The results of six studies demonstrated that artists who made non-realistic artworks were perceived as having higher impact than artists who made realistic works (Studies 3.1 and 3.2); artists who deviated from their previous artistic style were considered more impactful than artists who consistently followed a single style throughout their career, especially when the deviant artists' career featured a transition from a realistic to a non-realistic style rather than vice versa (Studies 3.3 and 3.4); and artists who deviated from their contemporaries' style gained greater impact than artists who followed their contemporaries' style, in particular when artists deviated from a predominant realistic style by adopting non-realistic means of expression rather than the other way around (Studies 3.5 and 3.6). These results were corroborated in a series of meta-analyses that synthesized the findings of the individual studies. Mediation analyses further showed that artists who did not follow norms were considered more impactful because the public considered their actions more willful (Studies 3.4 and 3.6). These findings jointly suggest that artists who deviate from normative standards are more likely to reach a high ground in an artistic hierarchy (e.g., in the field of visual arts), as reflected in perceptions of artistic impact.

In Chapter 4 we investigated the idea that individuals' support for norm violators depends on their own position in the hierarchy, in other words, their verticality. On account of theory and research suggesting that high-verticality individuals are more keen to maintain social hierarchies and that norm violations threaten the stability of hierarchies (Anderson et al., 2015; Chen et al., 2003, 2012; Keltner et al., 2008), we hypothesized that high-verticality individuals may reject a norm violator's claim to rise up the ladder to a greater extent than low-verticality individuals. It is noteworthy that individuals' verticality was operationalized as both a stable trait and a transient state to capture differences in the degree to which hierarchy-maintenance motives are enduring versus transient. A meta-analysis of the first twelve studies (Studies 4.1 and 4.12) supported our main hypothesis: Individuals afforded less power to norm violators, and this preference was stronger among high- rather than low-verticality individuals. Across our studies, this relative preference was contingent on the operationalization of verticality. In studies where verticality was treated as a stable trait, individuals of higher verticality rejected norm violators, whereas individuals of lower verticality did not favor one over the other. In contrast, in studies where verticality was treated as a transient state, both high- and low-verticality individuals preferred norm followers over norm violators to the same extent, even though manipulation checks indicated that our manipulations of verticality were successful. Replicating these findings, Study 4.13 showed that individuals tended to afford less power to norm violators, but this tendency differed between high- and low-verticality individuals only when we took into account individuals' measured trait verticality – not when we considered the same individuals' manipulated state verticality. We proposed that, since manipulations of verticality are temporary and largely devoid of social context, they may not influence concerns about hierarchy maintenance, which we theorized lie at the heart of high-verticality people's stronger tendency to reject norm violators. Finally, Study 4.14 provided suggestive evidence that the preference for social dominance, which is associated with the desire for privileged positions in society, was related

to lower power affordance to norm violators. Taken together, these findings suggest that a norm violator is less likely to be supported by individuals who stand high on the hierarchy, likely because they are more concerned about their own position in the hierarchy.

In Chapter 5 we examined whether hierarchical concerns influence individuals' attention to emotions that have informative value for the maintenance of hierarchies. Based on the argument that high-ranking individuals who face the threat of losing an illegitimate position may be alert to signals of attack, we hypothesized that high-ranking individuals with high hierarchical concerns would be more attentive to anger expressions. Likewise, given that low-ranking individuals who try to gain control within an illegitimate hierarchy may be more alert to signals of vulnerability, we hypothesized that low-ranking individuals with high hierarchical concerns would be more attentive to fear expressions (Davis et al., 2011; Fischer & Manstead, 2008; Hess et al., 2009). Importantly, hierarchical concerns were operationalized as an illegitimate power role assignment or as a mismatch between one's power role and trait power. The studies reported in this chapter revealed that individuals who were assigned a leadership role detected the appearance of anger faster when the role assignment was illegitimate rather than legitimate (Study 5.1); leaders with lower trait power were faster at detecting others' anger and perceived others' angry expressions to persist longer (Study 5.2); and leaders were more accurate in recognizing their partners' anger expressions and subordinates were more accurate in recognizing their partners' fear expressions when the role assignment was illegitimate rather than legitimate (Study 5.3). In line with our theorizing, leaders were more attuned to anger expressions when their high-power position was illegitimate or at odds with their trait power, and subordinates were more attuned to fear expressions when their low-power position was illegitimate. Conclusions pertaining to attention to anger were further bolstered by a meta-analytic synthesis of the results across the three studies. As a whole, these findings indicate that social conditions that engender concerns about one's position in the hierarchy influence fundamental perceptual processes, such as attention to emotional expressions that are of strategic value.

Theoretical Implications

The findings of the current dissertation make a number of contributions to different fields of research. First, they help further our understanding of the social consequences of norm violations. Previous research has shown paradoxical findings with regards to people's responses to norm violators (Van Kleef et al., 2015). Our research demonstrated that responses to norm violations are subject to various contextual influences. Namely, we demonstrated that collectivism and tightness values that are commonly shared in one's culture as well as one's elevated position in the hierarchy reinforce negative responses to deviants. However, there was also evidence of positive responses to deviance in the case of targets who violated normative artistic standards. It is worth noting that studies that showed negative responses to deviance were enacted in the domain of business or politics, whereas studies that showed positive responses to deviance were enacted in the domain of art. Taken together, these findings suggest that the domain where the norm violation takes place may radically change people's responses to norm violations. The art domain is characterized by openness to change, which is facilitated by rather loose perceptions of what constitutes a norm. This is strikingly different from the domains of business and politics where there is a higher investment in the maintenance of status quo, which is facilitated by rather rigid perceptions of norms. Across domains, however, individuals' responses to norm violators who try to gain ascendancy have instrumental value as the positive responses promote the evolution of art to

forward-looking trends and the negative responses protect individuals' position in the hierarchy or serve higher-order goals related to the culture's need for coordination and order. In short, when the stability of the current hierarchical system is jeopardized, individuals' responses have the potential to effectuate beneficial outcomes.

Our findings also contribute to a growing literature on the development of social hierarchies. The questions of how hierarchies perpetuate themselves and how they shift or collapse have arguably been two of the holy grails of the social sciences (Magee & Galinsky, 2008). Our research demonstrates how reactions to norm violations may facilitate both the perpetuation and the attenuation of hierarchies. In business and politics, for instance, rule breakers have a lower potential to gain power and thus a lower chance to be liked, hired, and positively evaluated for their performance (but see Van Kleef et al., 2012 for evidence of power affordance to prosocial norm violators). Deviant attitudes would therefore be less prevalent, while conformist attitudes would steadily strengthen the existing status quo, resulting in the maintenance of hierarchies. In art, on the contrary, rule breakers whose work departs from conventional trends have a greater chance to gain impact. Therefore, deviating from normative standards under these conditions brings about benefits, which would eventually lead to lower vested interests in the establishment or maintenance of a status quo. These findings conjointly highlight the motivational underpinnings of hierarchy development (Van Dijke & Poppe, 2007).

The finding that hierarchical concerns influence fundamental perception of emotions resonates with theoretical accounts suggesting that perceptual abilities are specialized towards local environmental conditions (Ellis & Boyce, 2008). In line with these accounts we proposed that illegitimate leaders and subordinates were more attuned to anger and fear expressions, respectively, because of the threat-signaling quality of anger and the vulnerability-signaling quality of fear in the context of illegitimate power relations. Empirical evidence in favor of this explanation comes from research on the development of children's cognitive abilities. For instance, children who grew up in dangerous environments exhibited improved detection, learning, and memory on tasks involving danger-related stimuli (e.g., anger expressions) that were ecologically relevant to them, as compared with safely nurtured peers (Frankenhuis & de Weerth, 2013; Pollak, 2008; Pollak, Messner, Kistler, & Cohn, 2009). Theory and research thus converge to suggest that perceptual systems are specialized for detecting and monitoring of threats.

Apart from hierarchical concerns, our research provides evidence for other crucial processes that explain people's reactions to targets who deviate from the norms. Our studies in the art domain showed that artists who break with conventions are more likely to flourish when the public perceives their actions to be intentional. This finding is consistent with research on the perception of deviant social targets who were considered more powerful because of their perceived volitional capacity (Van Kleef et al., 2011) or autonomy (Bellezza et al., 2014). Apparently, when people evaluate a target's behavior they are not only interested in it as an end product but also in the process that led to it.

Furthermore, how people feel about a violator's behavior relates to their responses as well: Moral emotions explained people's rejection of norm violators across cultures. This finding is in line with emotion theories that emphasize the social nature of emotions (Fischer & Manstead, 2008; Frijda & Mesquita, 1994; Van Kleef, 2009). These theories suggest that social relations shape how individuals experience, express, regulate, and respond to emotions. Accordingly, our research showed that the ability to grasp others' emotions is influenced by

social processes in hierarchical settings that change the nature of one's power role and the meaning of others' emotional expressions.

Moreover, what people think about a transgressor's power plays a role in their reactions, although power perceptions of norm violators are not universally shared across cultures. Existing empirical studies that were conducted in Western cultures had consistently shown that violating norms enhances the transgressor's perceived power (Belleza et al., 2014; Van Kleef et al., 2011). Our research indicated that the positive relationship between norm violation and power perception is actually reversed in collectivistic cultures, where violating norms undermines power inferences. This finding may be explained by the different ways people conceptualize power across cultures. For instance, in cultures where norm violators are seen as more powerful, people may think of power in terms of entitlement and may picture the powerful as assertive and unconstrained individuals. Conversely, in countries where norm followers are seen as more powerful, people may think of power in terms of responsibility and may portray the powerful as modest and restrained individuals (Torelli & Shavitt, 2010).

Finally, our studies on the role of verticality contribute to theoretical attempts that aim to create a comprehensive taxonomy of disparate hierarchy-related terms (Magee & Galinsky, 2008; Overbeck, 2010). We showed that higher-verticality individuals prefer norm followers to norm violators to a greater extent than lower-verticality individuals, but only when verticality reflects an enduring personality trait rather than an ephemeral state. A possible explanation for this difference is that trait verticality measurements tap into stable beliefs that have been instigated, developed, and reinforced through social learning experiences, whereas state verticality manipulations are temporary and largely devoid of social context. This account is also consistent with meta-analyses and reviews indicating that trait and state operationalizations of verticality may indeed produce differential outcomes (Hall et al., 2014; Sturm & Antonakis, 2014). Manipulations of verticality may not influence concerns about hierarchy maintenance because the development of an ideology that favors social inequality develops over time, as individuals habitually engage in social interactions that affirm and solidify their hierarchical rank. Future research on verticality should therefore take into account that an ideology that justifies hierarchical differences is not something that can be readily injected into individuals' minds by assigning them a temporary hierarchical position.

Practical Implications

Our research has practical implications for various applied fields. To begin with, our findings can inform training programs that aim to improve intercultural competence skills. Intercultural competence refers to the challenge of understanding, adjusting, and excelling in modern multicultural societies (Deardorff, 2009). Our research suggests that the stereotypes people hold about powerful individuals' behavior may differ across cultures. People in individualistic cultures associate rule-breaking behavior with the powerful, whereas in collectivistic cultures they associate rule-following behavior with the powerful. This implies that individuals who already occupy high hierarchical positions in individualistic cultures are more likely to get away with norm violations than high-standing individuals in collectivistic cultures. Furthermore, individuals who wish to climb the ladder may have to follow a different strategy in individualistic than in collectivistic cultures. Deviating from the norm may enhance one's status in individualistic cultures but may backfire in collectivistic cultures. Also in tight cultures, where the only way up seems to be norm adherence, norm violators would have a more challenging path to the top than in loose cultures. Moreover, our finding that higher-

standing individuals would more fiercely reject norm violators' claim to climb up could presage attitudes towards norm violators in cultures where hierarchical differences are more pronounced, namely, high power distance cultures (Hofstede, 1980). In these cultures hierarchical struggles may be more forceful because the eminence of high-standing individuals' positions likely breeds hierarchical concerns to a greater extent than in low power distance cultures. High-standing individuals would thus be more motivated to block norm violators' way up in more hierarchical cultures than in less hierarchical ones. Given that culture transcends country borders, these conclusions may also apply to meso- or micro-level communities (e.g., counties, professional domains, organizations) that differ in the prioritization of their group goals, the strength of their norms, or the centralization of authority (Harrington & Gelfand, 2014).

An important caveat in applying the knowledge we gained from our research is that we need to consider the demands of the domain where the norm violation occurs. Responses to norm violations are governed by different rules in the domains of business and politics than in the domain of art. This implies that people who work in the creative industries may be given more leeway as to whether they can express deviant opinions than people who work in domains where the hierarchical structure is more rigid (Howkins, 2001). This is not to say that breaking the rules is always the way to go in art, since our research revealed two crucial boundary conditions to the effectiveness of artistic deviance in terms of gaining impact. The first one is that artists need to first demonstrate that they can follow the rules before they break them later on. This order showcases how the artist transitions from one stage to the other and allows people to understand the artist's vision and to attribute his or her deviance to willpower as opposed to lack of competence. This insight can inform art education programs that aim to enhance creativity. Creativity programs should emphasize not only the development of a distinct style but also the acquisition of traditional techniques. The second condition is that artists need to differentiate themselves from others in such a way that their distinct style is seen as a natural progression of previously existing styles. A distinct style that has been employed in the past is seen as backward movement and is appreciated less. This implies that people want to see how an artist's work contributes to the advancement of art in time. Deviant artists could thus benefit from emphasizing not only the radical but also the incremental qualities of their work.

Furthermore, our research has implications for understanding election outcomes. There are numerous historical examples of politicians who exhibited rule breaking behavior and eventually ruled a country. A recent example is Donald Trump, who had been repeatedly accused of legal and ethical violations before he was elected president of the USA (Campbell, 2015; Fahrenthold, 2016). Demographic data indicate that Trump was not supported in counties with higher education attainment rates (Silver, 2016). Given that education is an index of verticality (Côté, 2011), these higher-standing voters might have perceived a threat to their own interests. On the contrary, Trump's populist policies effectively managed to appeal to the interests of lower hierarchical strata that largely comprised his electoral base (Inglehart & Norris, 2016). Election outcomes like this are illuminated by the finding that people's responses to norm violators are driven by self-serving motives, which are often tied to their own position in the hierarchy (Stamkou, Van Kleef, Homan, & Galinsky, 2016). These historical examples also indicate that, even if people generally dislike norm violators and feel reluctant to grant them power (or to admit that they would), norm violators may still be in a good position to seize power because they come across as powerful and capable of leading a reform – qualities that

may be in demand when the system undergoes a crisis (Boin & 't Hart, 2003).

Strengths, Limitations, and Future Directions

Our research furthers the development of theoretical knowledge and practical applications through a number of strengths. First, our effects were tested in a large sample that spanned a broad age range and included people from diverse educational, religious, and cultural backgrounds. Due to the broad geographic scope of our research some important findings are not confined to Western, Educated, Industrialized, Rich, and Democratic (WEIRD) individuals (Henrich et al., 2010). Second, our conclusions were corroborated by statistical analyses that synthesized the results of individual studies within each of the empirical chapters. In Chapter 2, results across 19 countries from five continents were combined using multilevel modeling techniques. In Chapters 3, 4, and 5, individual study results were combined using meta-analytical techniques whenever the study designs allowed it. These analyses established the robustness of the overall effects as well as the homogeneity of the effects of the individual studies. Third, we set forth and tested comprehensive theoretical models that often incorporated the study of mediators and moderators. This allowed us to examine the psychological processes that drove the effects as well as their boundary conditions. Furthermore, the independent variables we studied (e.g., norm violation, artistic deviance, verticality) spanned different levels of analysis, including the interpersonal, organizational, and socio-cultural levels. Fourth, our findings illuminate a variety of responses to norm violations that ranged from behavioral tendencies to cognitive and affective reactions. With regard to behavioral outcomes, we examined leader support tendencies to deviant targets, but also purchase intention of and attention to deviating stimuli as measures of artistic impact. Importantly, attention was measured unobtrusively and it was validated against other direct measures. With reference to cognitive reactions, we examined power perception and perceived willpower (i.e., intentionality) as mediators of the effects of norm violations on leader support and artistic impact, respectively. As for affective reactions, we demonstrated that moral emotions mediated the effect of norm violation on leader support.

Despite the strengths of our research, there are some important limitations future research should address. One might be concerned that some of the manipulations we used required that participants imagine a situation (i.e., scenarios in Chapters 2, 3, and 4) in which they have little at stake. Although other manipulations that employed more involving situations (e.g., videos in Studies 4.5 and 4.14) produced parallel effects with the ones we observed in the scenario studies, manipulations that would involve face-to-face interactions could produce different effects. For instance, an experimental setting where participants interact with a norm violator could be more impactful due to the spatial and temporal proximity to possible benefits or costs of the norm-violating act (Van Houwelingen, Van Dijke, & De Cremer, 2017). However these high-stake situations could also sabotage some psychological processes that are subject to social desirability bias, such as hierarchical concerns. When hierarchical concerns become salient, people may react against them because striving for or being concerned about status is a stigmatized behavior that people actively conceal (Kim & Pettit, 2014). We therefore recommend that future research employ manipulations that vary in their degree of participant involvement to compensate for the drawbacks of each method.

Another consideration may stem from the fact that in some cases the norm violation manipulation involved a breach of multiple norms. For instance, in some scenarios (e.g., in Chapters 2 and 4) the focal actor either violated or adhered to the punctuality, discretion, and

talk-in-turns norms. The compiled manipulations did not allow us to know what exactly was the driving force behind the effects of the norm violation manipulation. However, each of these norm violations has been examined separately during pilot studies and in previous research (Van Kleef et al., 2011; 2012), and they have been proven effective. Furthermore, in the vast majority of the individual studies we checked the manipulation of norm violation, which was even perceived similarly across 19 countries. There is therefore strong empirical evidence that each individual case of norm violation employed in our scenarios adheres to the common definition of norm violation we adopted. Additionally, there is a theoretical reason why we opted for this operationalization. We combined different norm violations to ensure that any effects would not be driven by one idiosyncratic type of norm violation (e.g., punctuality violation). This relates to the main goal of the current research, which was not to disentangle the effects of individual norm violations, but rather to examine the influence of contextual factors on the effects of norm violations. Future research could benefit from developing a comprehensive account of norm violations that articulates existing taxonomies of norm violations and recent findings regarding their effects (Rozin et al., 1999; Stamkou et al., 2016; Van Kleef et al., 2015).

Future research could also investigate how norm violations bring about positive outcomes not only for the transgressor but also for society at large. For instance, norm violations may lead to cultural change by introducing innovative practices that question obsolete or maladaptive ones. Our research on deviant artistic content suggests that norm violations may have stronger impact when they appear as an adjustment to a preexisting set of circumstances. People seem to be more open to innovative trends that do not emerge out of a vacuum. Therefore, stimuli that present people with identifiable elements but still contain innovative elements may be optimal in introducing a change. Artworks in particular can be a gentle way of achieving this goal. As cultural products, artworks may reflect a past or present state of affairs while creating a new narrative projected into the future. This way artworks can function as a think tank that leaves space to pose questions and propose alternative solutions in a safe as-if context immersed in entertainment. In support of this argument, a movie that presented both traditional and radical opinions about a controversial topic (i.e., female genital cutting) reduced the appeal of a maladaptive practice among members of a community that has long been following it (Efferson, Vogt, Elhadi, Ahmed, & Fehr, 2015; Vogt, Zaid, Ahmed, Fehr, & Efferson, 2016). Future research could investigate the potential of progressive art to act as a catalyst for cultural change as well as the conditions that facilitate this process.

Our research provides suggestive evidence that the domain where norm violations occur affects people's responses to them. We have seen that deviation from normative standards was met with moral outrage and denial of leadership in certain domains (e.g., business or politics) but also with perceptions of influence and monetary worth in other domains (e.g., art). However, we did not directly compare responses to norm violators across different domains and we also did not investigate which aspect per domain motivates individuals' responses. We presume that more negative responses occur in domains that feature a clear hierarchical order, and especially among high-ranking individuals who are likely to be more concerned about maintaining their position in these hierarchies. Hierarchical concerns in turn attune people to signals that reveal protective or combative intentions (e.g., anger or fear expressions) so they can fulfill their interests during a hierarchical combat (Stamkou, Van Kleef, Fischer, & Kret, 2016). Another important aspect per domain may be the strength of norms and tolerance to deviance; in other words, the tightness of the domain.

Relatedly, literature indicates that cultural tightness correlates with the strength of different situations (Gelfand et al., 2011). Strong situations, such as a job interview, are defined by a tightness culture because they have clear behavioral demands that are associated with an increased propensity to censure norm violating behavior. On the contrary, weak situations, such as a party, are defined by a looseness culture because they are ambiguously structured, thereby affording more lenient attitudes towards rule breaking (Price & Bouffard, 1974). We therefore recommend that future research examine how people react to the same norm violation that is enacted in domains that vary in the prevalence of hierarchical order and their cultural climate.

Finally, future research could shed more light on the “black box” of people’s cognition and its relation with reactions to norm violations. Previous research suggests that the level at which people construe norms affects their attitudes towards norm violations. Construal level is a fundamental cognitive phenomenon and refers to the level of abstraction by which we mentally represent objects, situations, or people (Burgoon, Henderson, & Markman, 2013). Information may be construed either at a low (i.e., concrete) or at a high (i.e., abstract) level (Trope & Liberman, 2010). Social norms in particular tend to be relatively abstract as they provide information on what should be done in general, regardless of specific situations (Hirst, 1934). Given that people have a preference for information that fits their mindset (i.e., abstract information is considered more positive when people are in a high construal level mindset), social norms should have a stronger influence when people are in high construal level mindsets (Hunt, Kim, Borgida, & Chaiken, 2010). In line with this, Ledgerwood and Callahan (2012) showed that high construal level is associated with stronger norm compliance. Furthermore, Van Houwelingen, Van Dijke, and De Cremer (2015) suggested that leaders who construe norms on a relatively high level hold more positive attitudes towards norms and are more willing to enforce them on others than leaders who construe norms on a relatively low level of abstraction. It may thus stand to reason that individuals who construe norms at an abstract level are less likely to support norm violators as leaders. Our finding that high-verticality individuals respond more negatively to norm violators provides some initial support for this prediction, as elevated rank is associated with abstract information processing (Smith & Trope, 2006).

Concluding thoughts

The current dissertation started with a helicopter view of combats that sculpted the face of the world. Across historical and geographical boundaries, civilizations that rose and fell have often been organized along a vertical dimension – the dimension of social hierarchies. Social hierarchies permeate various types of relationships, such as those between government and opposition parties, management and employee staff, advocates of mainstream and avant-garde trends. Social hierarchies – political, organizational, and intellectual among others – are shaped by the quest to preserve or assert a higher rung of the ladder. Higher rank and the benefits that come with it can be so mesmerizing that people would move against established rules to achieve it.

With this we land on the main question we posed at the beginning: How do norm violations set the cogwheel of hierarchies into motion? Our research suggested that people’s tendency to afford the violator a higher position in the hierarchy depends on contextual information, such as the prevalent cultural values, people’s own position in the hierarchy, and the domain of the violation. Although norm violations in the domains of business and politics were met with *prima facie* rejection and denial of leadership, there were other circumstances

that fostered rather positive responses. For instance, when norm violations were enacted in more individualistic cultures, the transgressor seemed more powerful in the eyes of others than when they occurred in collectivistic cultures; when people were less concerned about maintaining their hierarchical position, their negative responses to norm violators were tempered; and when the violation occurred in the field of art, the deviant artist was considered more impactful, which opens up the possibility of advancing art to forward-looking trends. Norm violations are thus not necessarily a negative course of action – under certain conditions they bring about benefits to the individual, the group, and society at large. I hope that future research will provide further insight into the conditions that promote the positive outcomes of norm violations.

Supplementary Material Chapter 2

Additional Methodological Information

Sample Selection

In each country, we surveyed university students to keep cross-national samples as similar as possible in terms of age and education. We gathered the data in large cities to control for urbanization. The USA sample was drawn from various cities in states on the east and west coast: California (25 respondents), Connecticut (1), Delaware (1), Florida (13), Georgia (10), Illinois (10), Maryland (6), Massachusetts (16), New Jersey (7), New York (22), North Carolina (9), Oregon (3), Rhode Island (1), Virginia (14), and Washington (3).

Translation of the Questionnaire

The original English version of the questionnaire was translated into each country's official language by each country's coauthor or another PhD-level researcher and then back-translated into English by a second translator to ensure compatibility and equivalence in meaning (Brislin, 1986). The back-translated English questionnaire was then compared to the original English questionnaire by the first author. Next the translators discussed the differences between the two translations until they reached consensus. When no consensus could be reached, a third translator was involved. Lastly, the final translation was checked for preservation of meaning and cultural appropriateness by each country's coauthor. In countries with multiple official languages we used the medium of instruction in public schools, for instance, English in Singapore and Urdu in Pakistan.

Additional Results

Three-way Interaction Among Collectivism, Tightness, and Norm Violation

To explore whether the pattern of results remains the same when collectivism and tightness are simultaneously included in the positive and negative pathway models, we carried out regression analyses testing the effects of collectivism, tightness, and norm violation (main effects, two-way interaction effects, and three-way interaction effect) on leader support. The analyses largely overlapped with the results reported in the main text where we tested each moderator separately (see Table S2.1 in comparison to Tables 2.3 and 2.4), except for a now non-significant interaction between actor's behavior and tightness on moral outrage.

Interestingly, there was a significant three-way interaction among collectivism, tightness, and norm violation on power perception. Probing the interaction revealed that in tighter and more individualistic cultures, norm violators were seen as more powerful than norm abiders [$-1SD$: $b=0.37$ ($SE=0.12$), $z=3.07$, $p=0.002$; $-2SDs$: $b=1.02$ ($SE=0.27$), $z=3.74$, $p<0.001$], whereas in tighter and more collectivistic cultures norm violators were seen as less powerful than norm abiders [$1SD$: $b=-0.21$ ($SE=0.08$), $z=-2.51$, $p=0.012$; $2SDs$: $b=-0.82$ ($SE=0.24$), $z=-3.35$, $p<0.001$]. In looser and more individualistic cultures, and in looser and more collectivistic cultures norm violators and norm abiders were not perceived differentially. This interaction pattern suggests that norm violators are perceived as more powerful in individualistic cultures and as less powerful in collectivistic cultures (as predicted) only or especially when the culture endorses tightness too. It is conceivable that norm-violating behavior is more salient in tight cultures where it occurs less frequently, while it is less salient in loose cultures where it happens more frequently. This would imply that norm violating behavior leads to higher or lower power perceptions especially when it becomes salient against a background of cultural tightness.

Table S2.1. Parameter Estimates for Multilevel Models Testing the Hypotheses that the Positive and Negative Pathways are Moderated by Collectivism and Tightness

	Model 1 (Outcome: Leader Support)			Positive Pathway Model 2 _{pos} (Outcome: Power Perception) ^a			Negative Pathway Model 2 _{neg} (Outcome: Moral Outrage) ^b			Model 3 (Outcome: Leader Support)		
	<i>b</i>	<i>p</i>		<i>b</i>	<i>p</i>		<i>b</i>	<i>p</i>		<i>b</i>	<i>p</i>	
Fixed Parameters												
Intercept	3.32 [3.17, 3.46]	<.001		3.89 [3.78, 4.00]	<.001		2.66 [2.48, 2.83]	<.001		3.32 [3.18, 3.46]	<.001	
Actor's Behavior	-1.03 [-1.18, -0.89]	<.001		0.05 [-0.08, 0.17]	>.250		0.93 [0.81, 1.05]	<.001		-0.74 [-0.85, -0.62]	<.001	
Collectivism	-0.19 [-0.46, 0.07]	.142		0.04 [-0.16, 0.24]	>.250		0.23 [-0.09, 0.54]	.156		-0.19 [-0.45, 0.07]	.146	
Tightness	0.52 [-0.13, 1.17]	.108		0.22 [-0.27, 0.71]	>.250		0.52 [-0.25, 1.29]	.176		0.52 [-0.13, 1.16]	.110	
Actor's Behavior x Collectivism	-0.04 [-0.30, 0.23]	>.250		-0.20 [-0.42, 0.03]	.079		0.29 [0.07, 0.52]	.013		0.11 [-0.09, 0.31]	>.250	
Actor's Behavior x Tightness	-0.61 [-1.26, 0.03]	.062		0.08 [-0.47, 0.63]	>.250		0.13 [-0.42, 0.69]	>.250		-0.57 [-1.07, -0.08]	.025	
Collectivism x Tightness	0.09 [-0.92, 1.10]	>.250		-0.44 [-1.20, 0.32]	.237		0.18 [-1.02, 1.39]	>.250		-0.08 [-0.92, 1.09]	>.250	
Actor's Behavior x Collectivism x Tightness	-0.16 [-1.16, 0.85]	>.250		-1.12 [-1.97, -0.26]	.013		0.14 [-0.72, 1.00]	>.250		0.23 [-0.53, 1.00]	>.250	
Power Perception										0.30 [0.27, 0.34]	<.001	
Moral Outrage										-0.34 [-0.37, -0.31]	<.001	
Random Parameters												
σ_{residual}	1.49 [1.41, 1.58]	<.001		1.28 [1.21, 1.36]	<.001		1.71 [1.61, 1.81]	<.001		1.18 [1.12, 1.25]	<.001	
$\sigma_{\text{intercept}}$	0.06 [0.03, 0.12]	.011		0.03 [0.01, 0.07]	.021		0.08 [0.04, 0.17]	.008		0.06 [0.03, 0.12]	.008	
σ_{slope}^c	0.06 [0.03, 0.12]	.012		0.04 [0.02, 0.09]	.017		0.04 [0.01, 0.09]	.029		0.03 [0.01, 0.07]	.023	
Model Fit												
-2 log likelihood	7730.24	-										
χ^2 difference test										7173.31 556.93	-	

Note. 95% confidence intervals are reported within brackets. Parameters in bold highlight the effects that need to be significant in order for a conditional indirect effect hypothesis to be supported. Actor's behavior was coded as -1 for the norm adherence condition and 1 for the norm violation condition. ^aIn Model 2_{pos} we controlled for the negative pathway mediator, moral outrage. ^bIn Model 2_{neg} we controlled for the positive pathway mediator, power perception. ^cIn Model 1 and Model 3 this parameter refers to the slope associated with the effect of actor's behavior on leader support. In Model 2_{pos} to the slope associated with the effect of actor's behavior on power perception, and in Model 2_{neg} to the slope associated with the effect of actor's behavior on moral outrage.

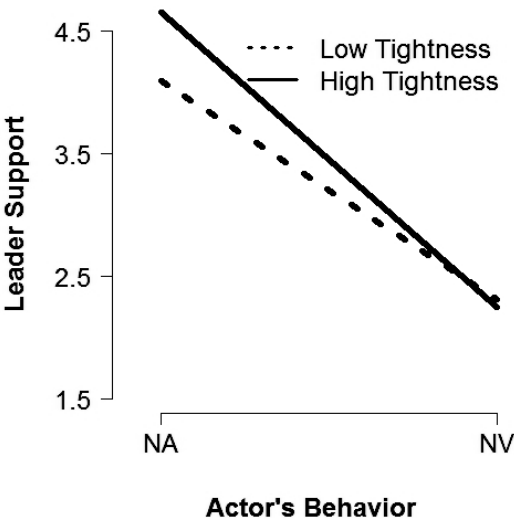


Figure S2.1. Leader support as a function of actor's behavior and tightness. NA and NV on the horizontal axis stand for norm adherence and norm violation conditions, respectively. Low and high values of tightness represent 1 *SD* below and above the scale mean, respectively.

Supplementary Material Chapter 3

Main Effects of Artwork Genre in Study 3.1

The analyses reported in the main text described a main effect of artwork genre on perceived unconventionality, attractiveness, and influence. Here we explore the nature of these effects by comparing the means of the various genres (see Table 3.2 in the main text). These multiple comparisons showed that still lives and landscapes were perceived as more unconventional than flowers and animals, while portraits were perceived as more unconventional than flowers and less unconventional than still lives and landscapes; landscapes were perceived as more attractive than still lives, which were perceived as more attractive than portraits, flowers, and animals; and artists who depicted still lives were considered more influential than artists who depicted flowers and landscapes, who were in turn considered more influential than artists who depicted portraits and animals.

Main Effects of Contemporaries' Style in Study 3.6

The analyses reported in the main text described a main effect of contemporaries' style on perceived influence and visual attention. Inspection of the means indicated that artists appear more influential and their work attracts more attention when their contemporaries endorse a realistic rather than non-realistic style (for means and standard deviations, see Table 3.6 in the main text).

Art Familiarity as Control Variable

After the first two studies, we considered art familiarity as a factor that may influence participants' responses. To empirically control for its potential effect, we measured art familiarity in all follow-up studies, apart from Study 3.5 where the art familiarity measure was omitted due to a programming error. We measured art familiarity with the items "How interested are you in art in general?" and "Do you have art-related education?", which were answered on 7-point Likert scales ranging from 1 = *not at all* to 7 = *very much*. These items were positively correlated and were therefore combined into a single scale ($r(116) = .72$, $p < .001$ in Study 3.3; $r(136) = .38$, $p < .001$ in Study 3.4; and $r(214) = .45$, $p < .001$ in Study 3.6). A series of Analysis of Covariance (ANCOVA) showed that the direction of the focal effects remained the same and their magnitude did not change substantially (See Table S3.1).

Table S3.1

Effects of Artist's Intrapersonal Deviance (Study 3.3), Artist's Intrapersonal Deviance and Artist's Early Style (Study 3.4), and Artist's Interpersonal Deviance and Contemporaries' Style (Study 3.6) on Major Study Variables Controlling for Art Familiarity

	<i>F</i>	<i>p</i>	η^2	<i>F</i>	<i>p</i>	η^2	<i>F</i>	<i>p</i>	η^2
	Study 3.3								
	Artist's intrapersonal deviance								
Perceived influence	6.58	.002	.11						
Price estimation	3.06	.051	.05						
	Study 3.4								
	Artist's intrapersonal deviance								
Perceived intrapersonal deviance ^a	68.85	.000	.35	1.55	.215	.01	0.69	.409	.01
Perceived influence	2.94	.089	.02	0.01	.940	<.01	8.72	.004	.06
Perceived willpower	3.81	.053	.03	<0.01	.994	<.01	9.54	.002	.07
	Study 3.6								
	Artist's interpersonal deviance								
Perceived interpersonal deviance ^a	75.20	<.001	.27	2.59	.109	.01	<0.01	.984	<.01
Perceived influence	11.25	.001	.05	4.92	.028	.02	52.85	<.001	.20
Purchase intention	8.90	.003	.04	<0.01	.997	<.01	19.01	<.001	.08
Visual attention	2.31	.130	.01	10.05	.002	.05	4.78	.030	.02
Perceived willpower	4.33	.039	.02	0.20	.653	<.01	97.84	<.001	.32

Note. Degrees of freedom were (2, 112) in Study 3.3, (1, 131) in Study 3.4, and (1, 209) in Study 3.6.

^a Variable used as manipulation check

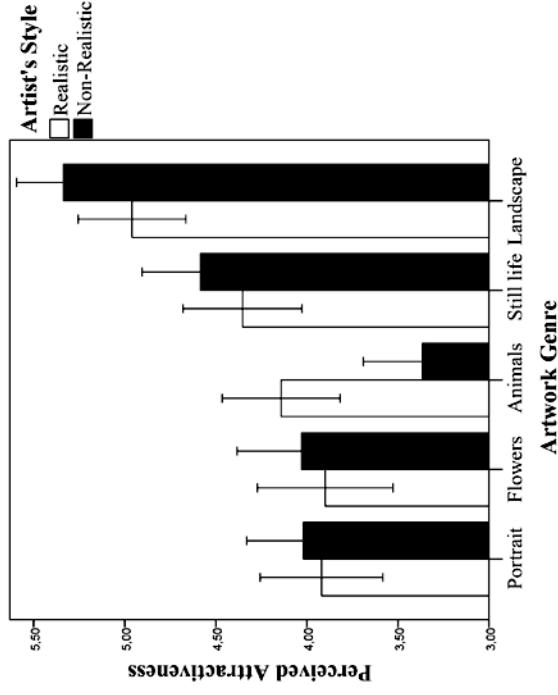
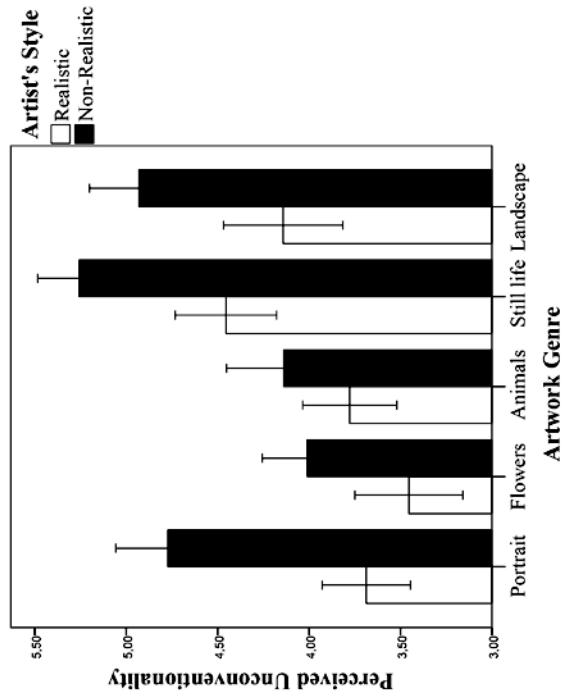


Figure S3.1. Perceived unconventionality (left panel) and perceived attractiveness (right panel) as a function of artist's style and artwork genre in Study 3.1. Bars represent means with their associated standard errors.

Supplementary Material Chapter 4

Table S4.1
Excluded participants per criterion for each study

Study	N_{Initial}	Excluded participants				N_{Final}
		Missing Verticality	Missing Power Affordance	Incorrect Manipulation Check	Double Participation	
4.1	68	1	0	0	0	67
4.2	229	0	0	0	0	229
4.3	42	1	0	0	1	40
4.4	58	0	0	0	0	58
4.5	103	2	0	0	0	101
4.6	67	0	1	0	0	66
4.7	168	0	0	9	0	159
4.8	166	0	0	7	0	159
4.9	172	0	0	0	0	172
4.10	100	0	0	4	0	96
4.11	172	0	0	0	0	172
4.12	134	0	0	0	0	134
4.13	117	0	1	0	0	116
4.14	136	1	0	0	0	135

Supplementary Material Chapter 5

Study 5.3

Estimation of emotion recognition scores may involve errors that relate to the stimuli used in emotion recognition tasks. To address these problems, different theorists have proposed different approaches to estimating recognition scores. In categorization tasks the signal detection approach is sometimes used (calculation of the sensitivity index, d') but in recent years an alternative measure, the unbiased hit rate (H_u), is increasingly used, especially in emotion recognition tasks (Beaupre & Hess, 2005; Elfenbein, Mandal, Ambady, Harizuka, & Kumar, 2002; Elfenbein & Ambady, 2002; Elfenbein & Ambady, 2003; Langner, Dotsch, Bijlstra, Wigboldus, Hawk, & van Knippenberg, 2010). The H_u was designed to address some of the issues that pertain to the assumptions of the signal detection approach (Wagner, 1993).

A signal detection approach to calculating emotion recognition accuracy makes two assumptions. First, it assumes that there is no bias in choice of response categories. We expected that this assumption would not hold for our task because some of the emotions we used are more frequently encountered in everyday life (e.g., happiness, sadness) compared to other emotions (e.g., pride, embarrassment). And, because certain emotions are more prevalent and thus more easily recognized, participants were expected to select these emotions more often than the less prevalent emotions (Rosenberg & Ekman, 1995). As it is evident by the total percentage of using each emotion label (see last row of Table S5.1), participants did not select all emotion labels with the same frequency. For instance, happiness was selected twice as often as pride (16.5% versus 8.1%).

Second, the signal detection approach assumes that the non-target response categories on any one trial are equivalent, which means that the choice amongst alternative responses other than the correct one is essentially random. We expected that this assumption would not hold for our task because half of the emotions we used shared morphological similarities with the other half (disgust with anger, surprise with fear, pride with happiness, and embarrassment with sadness; Hawk et al., 2010; Rosenberg & Ekman, 1995). Due to these morphological similarities participants were expected to confuse the similar emotions more often and thus make uneven use of the alternative responses. The confusion matrix of our participants' responses indeed shows that each emotion was more frequently confused with the morphologically similar emotion than with all the other emotions (see the italicized values in Table S5.1). For example, disgust was confused more often with anger (18.8%) than with the rest of the emotions (fear: 0.7%, surprise: 1%, happiness: 0%, pride: 0%, sadness: 1.2%, embarrassment: 0.2%).

Given our expectations for response bias and significant confusions, we decided a priori to use the formula we presented in the main text of the article. This formula is based on the unbiased hit rate (Wagner, 1993), which effectively deals with biased responses, but the formula is further adjusted to accommodate the problem of significant confusions. We present the results of the analyses using this formula in the article, but we also present the analyses based on the d' here because these analyses were recommended by the reviewers of the article. We calculated d' by using the method proposed by Stanislaw and Todorov (1999). The calculation of d' is not possible when participants' hit rates or false alarm rates take extreme values (i.e., 0 or 1). We therefore adopted the solution proposed by Macmillan & Kaplan (1985), where rates of 0 are replaced with $0.5/n$, and rates of 1 are replaced with $(n-0.5)/n$, where n is the number of incorrect alternative responses.

Table S5.1

Raw Hit Rates and Confusion Percentages for Each Emotion Category Across Conditions

Intended Emotion	Perceived Emotion (%)								
	Anger	Disgust	Fear	Surprise	Happiness	Pride	Sadness	Embarrassment	None
Anger	85.9	3.0	1.5	2.2	.2	.2	4.5	.7	1.7
Disgust	18.8	77.2	.7	1.0			1.2	.2	.7
Fear	1.0	3.5	59.9	27.2	.5	.2	3.7	.7	3.2
Surprise	.5	1.5	23.3	69.1	.2	.5	1.0	2.0	2.0
Happiness	.5	1.0	.5		86.1	9.4	.5	.5	1.5
Pride		.2	.2	.5	44.1	53.5	.2		1.2
Sadness	3.7	2.7	2.2	1.5		.2	83.4	5.0	1.2
Embarrassment	.5	2.5	1.7	1.2	.5	.7	19.8	70.3	2.7
Total	13.9	11.4	11.3	12.8	16.5	8.1	14.3	9.9	1.8

Note. Raw hit rates for each emotion category appear on the diagonal. Off-diagonal values represent confusion rates. Empty cells represent values of 0% (no confusion). Values in italics represent confusion rates of morphologically similar emotions (e.g., confusion of disgust with anger).

Results

Emotion recognition (d'). Participants' d' scores for anger and fear expressions were submitted to a 2 (power role: subordinate vs. leader) X 2 (legitimacy: legitimate vs. illegitimate) X 2 (emotion: anger and fear) repeated-measures ANOVA with the first two factors as between-subjects variables and the third factor as repeated-measures variable. This analysis showed a main effect of emotion, $F(1, 97)=81.13$, $p < .001$, $\eta_p^2=.46$, with anger expressions ($M=2.66$, $SD=0.59$) being recognized better than fear expressions ($M=1.99$, $SD=0.68$). There were no interaction effects between emotion and power, $F(1, 97)=0.61$, $p=.438$, between emotion and legitimacy, $F(1, 97)=2.40$, $p=.125$, and between emotion, power, and legitimacy, $F(1, 97)=2.14$, $p=.146$.

Even though the three-way interaction did not reach the conventional level of significance, we probed the three-way effect to see whether there was an interaction between power and legitimacy when anger and fear were considered separately. These further analyses showed that leaders were better at recognizing their partners' anger expressions when the role assignment was illegitimate ($M=2.81$, $SD=0.54$) rather than legitimate ($M=2.49$, $SD=0.57$), $\beta=0.27$, $t(50)=2.05$, $p=.046$, 95% CIs [0.01, 0.53], whereas they did not differ in their fear recognition (legitimacy: $M=1.99$, $SD=0.79$ vs. illegitimacy: $M=1.86$, $SD=0.65$), $\beta=-0.10$, $t(50)=-0.66$, $p=.516$, 95% CIs [-0.39, 0.20]. Subordinates, on the other hand, did not differ in their recognition of anger expressions (legitimacy: $M=2.67$, $SD=0.66$ vs. illegitimacy: $M=2.69$, $SD=0.56$), $\beta=0.02$, $t(47)=0.12$, $p=.904$, 95% CIs [-0.28, 0.32], and they also did not differ in their recognition of fear expressions (legitimacy: $M=2.07$, $SD=0.70$ vs. illegitimacy: $M=2.07$, $SD=0.56$), $\beta=0.01$, $t(47)=0.05$, $p=.962$, 95% CIs [-0.26, 0.28]. These effects are displayed in Figure S5.1.

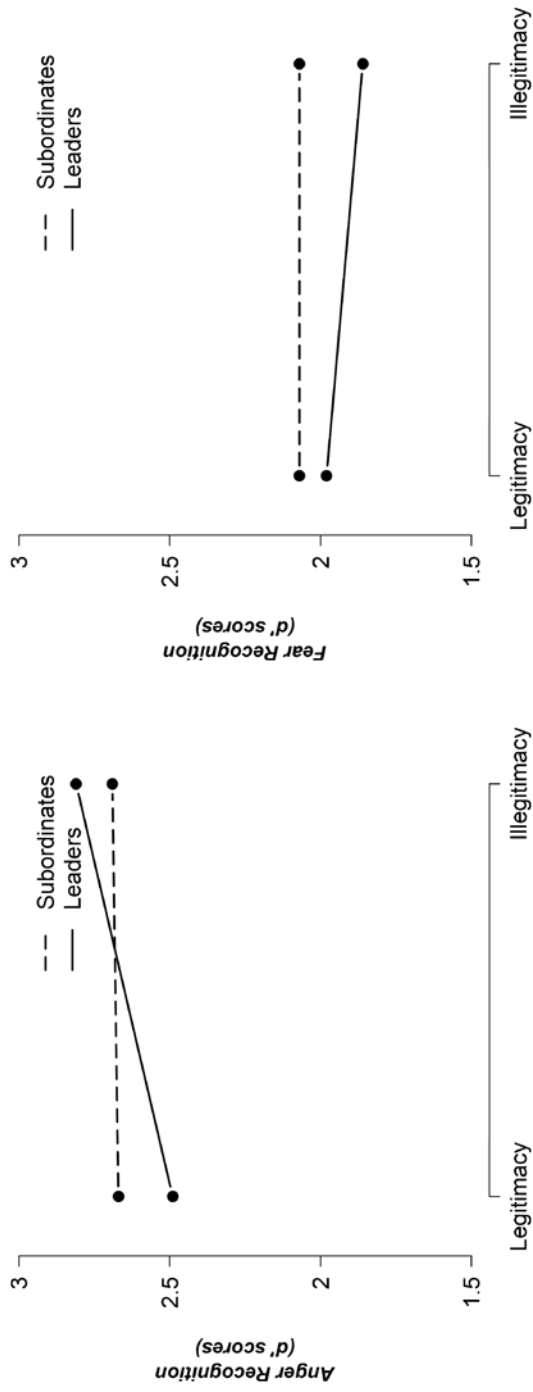


Figure S5.1. Mean d' scores of anger (left panel) and fear (right panel) as a function of legitimacy and power role in Study 5.3. Values represent unstandardized scores. Lower values indicate lower anger or fear recognition (lower attention).

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Social hierarchy is a fundamental feature of social relations (Fiske, 1992; Sapolsky, 2005). Hierarchies are appealing psychologically because they clarify roles and facilitate group functioning, which explains why they tend to be reinforced and perpetuated (Magee & Galinsky, 2008). Hierarchies, however, can also become unstable and eventually undergo change because people are motivated to compete for a higher rank and the benefits that come with it (Anderson et al., 2012, 2015; Brief et al., 2001; Leavitt, 2005; Tannenbaum et al., 1974). This begs the question of how one ascends the hierarchy. One may demonstrate skills to gain prestige, but one may also attempt to climb the ladder through the demonstration of dominance displays, such as norm-violating behavior (Cheng et al., 2013; Henrich & Gil-White, 2001; Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). Norm violations, however, create irregularities and may instigate a status quo change depending on how people respond to them (Friesen et al., 2014).

So how do people's responses to norm violations influence the transgressor's potential to climb the ladder? Previous research is inconclusive: Norm violators obstruct group functioning, which decreases their possibility to be supported in higher ranks of the hierarchy, but they also seem powerful in the eyes of others, which enhances their chances to be supported (Van Kleef et al., 2015). To shed more light on these contradictory findings, we proposed that people's responses to norm violators depend on the context. More specifically, we studied the cultural context where a particular norm violation occurs (Chapter 2), the leeway of the domain in which a norm violation is evaluated (Chapter 3), and the involvement of the observer's self-interest (Chapter 4). Our studies suggested that people's concerns about their own position in the hierarchy (i.e., hierarchical concerns) are crucial in understanding their responses to a norm violator, since the violator's behavior threatens the established status quo and may subsequently alter their position. We therefore expected that hierarchical concerns may also shape people's attention to other information that signals a threat to their position, such as emotions that have informative value in the context of a hierarchical struggle (Chapter 5). In each of the four empirical chapters of the current dissertation, we tested different parts of the aforementioned theory.

In Chapter 2 we examined the role of culture in people's tendency to support norm violators as leaders in a workplace setting. Norm violations threaten group harmony and social order, values that are endorsed in collectivistic and tight cultures, respectively (Gelfand et al., 2011; Kiesler & Kiesler, 1970; Miller et al., 1990). We thus predicted that individuals in more collectivistic and tighter cultures would support norm violators as leaders to a lesser extent than individuals in more individualistic and looser cultures. We further predicted that norm violations would induce both positive cognitive reactions (power perceptions) and negative affective reactions (moral outrage), which would subsequently influence people's behavioral tendencies to support the violator as leader. To test these predictions we presented participants in 19 countries with a norm-violation or a norm-adherence scenario and we asked them to report on their perceptions of the focal actor's power, their feelings of moral outrage, and the extent to which they would support the focal actor as leader. The results showed that the more collectivistic and tight the culture was, the more moral outrage individuals experienced in reaction to norm violations. These feelings in turn were related to people's reluctance to support violators as leaders. Furthermore, resistance to norm violators was stronger in more collectivistic countries where people considered norm violators less powerful than norm followers and, importantly, weaker in rather individualistic countries where people considered norm violators more powerful. These findings suggest that cultural

values influence people's perceptions of the violator's power, their emotional reactions in response to the violator's behavior, and their tendency to reject a norm violator as leader.

Chapter 3 focused on people's responses to norm violations in the art domain, which features greater leeway than the workplace domain employed in the previous chapter. Specifically, in Chapter 3 we investigated whether deviating from prevalent artistic norms enhances an artist's potential to rise to fame. In art, perceptions of what constitutes valuable work are less rigidly shared and deviation from default thinking styles is associated with creativity (Förster et al., 2005; Maddux & Galinsky, 2009). We thus predicted that artists whose work deviates from the realistic representation of objects (realism deviance), their own previous style (intrapersonal deviance), and/or other artists' styles (interpersonal deviance) would gain greater impact than non-deviant artists. We tested predictions for each type of deviance in 6 studies that focused on several aspects of artistic impact. The results demonstrated that artists who made non-realistic artworks were perceived as having greater impact than artists who made realistic works (Studies 3.1 and 3.2); artists who deviated from their previous artistic style were considered more impactful than artists who consistently followed a single style throughout their career, especially when the deviant artists' career featured a transition from a realistic to a non-realistic style rather than vice versa (Studies 3.3 and 3.4); and artists who deviated from their contemporaries' style gained greater impact than artists who followed their contemporaries' style, in particular when artists deviated from a predominant realistic style by adopting non-realistic means of expression rather than the other way around (Studies 3.5 and 3.6). Mediation analyses further showed that artists who did not follow prevailing norms were considered more impactful because the public considered their actions more willful (Studies 3.4 and 3.6). These findings jointly suggest that artists who deviate from normative standards are more likely to reach a high ground in an artistic hierarchy, as reflected in perceptions of artistic impact.

Besides characteristics of the cultural context and the domain where norm violations occur, attributes of the perceivers are also important in understanding their responses to norm violations, which often have direct implications for the perceivers' interest. In Chapter 4 we therefore studied the role of the perceiver's self-interest by investigating whether their support for a norm violator depends on their own position in the hierarchy, that is, their verticality. High-verticality individuals are keener to maintain social hierarchies, the stability of which is threatened by norm violations (Anderson et al., 2015; Chen et al., 2003, 2012; Keltner et al., 2008). Accordingly, we hypothesized that high-verticality individuals may reject a norm violator's claim to rise up the ladder to a greater extent than low-verticality individuals. Across 14 studies we asked participants to indicate their support for a norm violating or norm adhering target as a leader. In the first thirteen studies, we also measured participants' trait verticality (sense of power, socioeconomic-status, testosterone) and/or manipulated state verticality (power position, status, dominance). In the last study, we explored whether ideological beliefs about social inequality (i.e., social dominance orientation) would produce similar effects to verticality, as this would suggest that negative reactions to deviants are driven by hierarchical concerns. Meta-analytic results showed that high-verticality individuals granted less power to norm violators than low-verticality individuals. Notably, these effects occurred for trait but not state verticality, arguably because temporary verticality states do not influence one's concerns about hierarchy. Supporting this reasoning, the final study's results showed that the preference for social dominance, which is associated with the desire for privileged positions in society, was related to lower support for norm violators. Overall, these

findings support the idea that a norm violator is less likely to be supported by individuals who stand high on the hierarchy, as they are more concerned about their own position in the hierarchy.

Chapter 5 built forth on this idea and examined whether hierarchical concerns influence individuals' attention to emotions that have informative value for the maintenance of hierarchies. We expected that attention to others' emotions depends on one's hierarchical concerns and the social signal conveyed by the emotion. When hierarchy is at stake, high-ranking individuals may be more alert to signals of attack to preempt threats to their status and low-ranking individuals may be more alert to signals of vulnerability to gain control (Davis et al., 2011; Fischer & Manstead, 2008; Hess et al., 2009). We thus predicted that high-ranking individuals with high hierarchical concerns would be more attentive to anger expressions (i.e., attack signals), whereas low-ranking individuals with high hierarchical concerns would be more attentive to fear expressions (i.e., vulnerability signals). We tested this prediction in three studies where hierarchical concerns were manipulated either as an illegitimate power role assignment or as a mismatch between one's power role and trait power. The results showed that when power roles were illegitimately assigned or mismatched with one's trait power, leaders were faster at detecting the appearance of anger (Studies 5.1 & 5.2), slower at judging the disappearance of anger (Study 5.2), and more accurate in recognizing subordinates' anger, whereas subordinates were more accurate in recognizing leaders' fear (Study 5.3). To conclude, social conditions that engender concerns about one's position in the hierarchy influence fundamental perceptual processes, such as attention to emotions that have strategic value for understanding how one's position within the hierarchy might develop.

Taken together, the results of this dissertation suggest that solving the puzzle concerning the potential of norm violators to ascend to higher hierarchical ranks requires incorporating the context within norm violations occur. People's responses to a violator's quest for influence depend on the prevalent cultural values, the leeway of the domain where the violation happens, and the perceivers' own position in the hierarchy. On the one hand, collectivistic and tight cultural values as well as a perceiver's elevated position in the hierarchy diminish a violator's potential to climb up in political and organizational hierarchies. On the other hand, breaking the rules in art elevates deviant artists' impact and their position in an artistic hierarchy. In sum, social conditions that engender hierarchical concerns shape overt responses to deviant targets as well as covert attention to emotional expressions that are relevant to hierarchy development. We hope that future research will build upon these findings by further investigating the motivational underpinnings of hierarchy development, the cultural variation in the concept of power, further moderating influences of norm violation outcomes, and the role of domain in people's responses to norm violators.

Sociale hiërarchie vormt een fundamenteel onderdeel van sociale relaties (Fiske, 1992; Sapolsky, 2005). Hiërarchieën zijn psychologisch aantrekkelijk omdat ze rollen verduidelijken en het functioneren van groepen faciliteren, wat verklaart waarom men hiërarchieën vaak zal bekrachtigen en handhaven (Magee & Galinsky, 2008). Hiërarchieën kunnen ook onstabiel worden en uiteindelijk verandering ondergaan, aangezien mensen gemotiveerd zijn om te streven naar een hogere rang en de voordelen die hierbij horen (Anderson et al., 2012, 2015; Brief et al., 2001; Leavitt, 2005; Tannenbaum et al., 1974). Dit roept de vraag op hoe men hogerop komt in de hiërarchie. Zo zou men bepaalde vaardigheden kunnen tonen om aanzien te winnen, maar men kan ook proberen hogerop te komen door zich dominant op te stellen, bijvoorbeeld door normoverschrijdend gedrag te vertonen (Cheng et al., 2013; Henrich & Gil-White, 2001; Van Kleef, Homan, Finkenauer, Gündemir, & Stamkou, 2011). Normoverschrijdingen brengen echter onregelmatigheden teweeg en kunnen, afhankelijk van de reactie van de omgeving hierop, een verandering van de status quo veroorzaken (Friesen et al., 2014).

Dus, hoe beïnvloeden de reacties op schendingen van de norm de mogelijkheid van overtreders om hogerop in de hiërarchie te komen? Eerder onderzoek is niet doorslaggevend: normovertreders belemmeren groepsfunctioneren, waardoor de mogelijkheid om in de hogere gelederen van de hiërarchie gesteund te worden, afneemt. Maar gezien door ogen van anderen lijken overtreders machtiger, wat hun kansen om gesteund te worden verhoogt (Van Kleef et al., 2015). Om meer duidelijkheid te scheppen in deze tegengestelde bevindingen, stellen we dat de reacties op normovertreders afhankelijk zijn van de context. Specifieker, we hebben de culturele context bestudeerd waarin een bepaalde normoverschrijding voorkomt (Hoofdstuk 2), de speelruimte die het domein waarin de normovertreding wordt geëvalueerd biedt (Hoofdstuk 3) en de rol die het eigenbelang van de waarnemer speelt (Hoofdstuk 4). Onze studies wijzen erop dat zorgen van mensen over hun eigen positie in de hiërarchie cruciaal zijn om hun reactie op een normovertreder te begrijpen. De reden hiervoor is dat het gedrag van de overtreder de gevestigde orde bedreigt en daarmee de positie van de waarnemer in de hiërarchie zou kunnen aantasten. Daarom verwachtten we dat bezorgdheid over hun positie in de hiërarchie ook vorm geeft aan de aandacht die mensen besteden aan andere informatie die een bedreiging voor hun positie signaleert, zoals bijvoorbeeld emoties die informatieve waarde hebben in de context van een hiërarchische strijd (Hoofdstuk 5). In elk van de vier empirische hoofdstukken van dit proefschrift hebben we verschillende delen van de hierboven genoemde theorie getoetst.

In Hoofdstuk 2 testten we de rol van cultuur bij de neiging van mensen in het werkveld om normovertreders te steunen als leider. Het overtreden van normen bedreigt de goede verstandhouding in de groep en de sociale orde, beide waarden die onderschreven worden in respectievelijk collectivistische en strikte culturen (Gelfand et al., 2011; Kiesler & Kiesler, 1970; Miller et al., 1990). Daarom voorspelden we dat individuen uit culturen die meer collectivistisch en strikt zijn een normovertreder in mindere mate zouden steunen dan individuen uit meer individualistische en losse culturen. Daarnaast voorspelden we dat normoverschrijdingen zowel positieve cognitieve reacties (machtspercepties) als negatieve affectieve reacties (morele verontwaardiging) teweeg zouden brengen, die vervolgens weer de gedragstendenzen beïnvloeden om de overtreder als leider te steunen. Om deze voorspellingen te testen hebben we deelnemers in 19 landen een scenario voorgelegd waarin een norm overschreden dan wel opgevolgd werd. We vroegen de deelnemers om hun waarnemingen over de protagonist, hun morele verontwaardiging en de mate waarin ze de

protagonist als leider zouden steunen te beschrijven. De resultaten lieten zien dat des te collectivistischer en strikter de cultuur was, des te meer morele verontwaardiging deelnemers ervoeren als reactie op de normoverschrijding. Deze gevoelens waren op hun beurt gerelateerd aan hun afkeer om overtreders als leiders te steunen. Bovendien was weerstand tegen normovertreders sterker in collectivistischere landen waar mensen normovertreders als minder machtig zagen dan normvolgers. Belangrijker nog: de weerstand was zwakker in individualistische landen waar mensen normovertreders als machtiger zagen. Deze bevindingen suggereren dat culturele waarden invloed hebben op de perceptie van de macht van de normovertreder, emotionele reacties op het gedrag van de normovertreder en de neiging om normovertreders af te wijzen als leider.

In Hoofdstuk 3 lag de focus op reacties op normoverschrijding in de kunstwereld, een domein waarin meer speelruimte is dan in het werkveld (waarbinnen de normoverschrijding in het vorige hoofdstuk plaatsvond). In Hoofdstuk 3 onderzochten we of het afwijken van heersende artistieke normen de potentiële bekendheid van een kunstenaar vergroot. In de kunstwereld zijn belevingen van wat waardevolle kunst is minder vastomlijnd en wordt afwijken van gangbare denkstijlen geassocieerd met creativiteit (Förster et al., 2005; Maddux & Galinsky, 2009). We voorspelden daarom dat kunstenaars wier werk afwijkt van de realistische representatie van objecten (realistische deviatie), hun eigen voormalige stijl (intrapersoonlijke deviatie) en/of andermans stijl (interpersoonlijke deviatie) meer aan invloed winnen dan kunstenaars wier werk niet afwijkt. We hebben de voorspellingen voor elk type afwijking getoetst in zes studies, die elk gericht waren op meerdere aspecten van artistieke invloed. De resultaten wezen uit dat de invloed van kunstenaars die niet-realistische kunstwerken maakten als groter werd waargenomen dan die van kunstenaars die realistische kunstwerken maakten (Studies 3.1 en 3.2). Ook vonden we dat de invloed van kunstenaars die afweken van hun voormalige stijl als groter gezien werd dan die van kunstenaars die consistent één stijl aanhielden in het verloop van hun carrière, vooral wanneer de afwijkende kunstenaar veranderde van een realistische naar een non-realistische stijl, in plaats van andersom (Studies 3.3 en 3.4). Tot slot werd de invloed van kunstenaars die afweken van de stijl van hun tijdgenoten als groter waargenomen dan die van kunstenaars die de stijl van hun tijdgenoten volgden. Dit effect trad in het bijzonder op als kunstenaars afweken van een overwegend realistische stijl door een niet-realistische stijl te ontwikkelen, vergeleken met het afwijken van een niet-realistische naar een realistische stijl (Studies 3.5 en 3.6). Mediatie-analyses lieten zien dat kunstenaars die de heersende normen niet volgen als invloedrijker worden gezien omdat mensen hun daden als moedwillig beschouwen (Studies 3.4 en 3.6). Deze bevindingen suggereren dat, te zien aan de gewonnen invloed, kunstenaars die afwijken van normatieve standaarden een grotere kans maken hogerop te komen in de artistieke hiërarchie.

Naast de karakteristieken van de culturele context en het domein waarin normoverschrijdingen optreden, zijn de positie van de waarnemer en de daarmee samenhangende belangen ook belangrijk om reacties op normovertreders te begrijpen. In Hoofdstuk 4 hebben we daarom de rol van het eigenbelang van waarnemers bestudeerd door te onderzoeken of hun steun voor een normovertreder afhangt van hun eigen positie in de hiërarchie, dat wil zeggen, van hoe hoog of laag deze positie is. Normovertreders bedreigen sociale hiërarchieën, terwijl mensen die hoger in de hiërarchie staan ("hoog-verticaal") deze graag willen behouden (Anderson et al., 2015; Chen et al., 2003, 2012; Keltner et al., 2008). In lijn hiermee verwachtten we dat hoog-verticale mensen de aanspraak van een

normovertreder om in hiërarchie te stijgen eerder zouden afwijzen dan laag-verticale mensen. We hebben proefpersonen in 14 studies gevraagd om hun steun kenbaar te maken voor het leiderschap van een persoon die normen overtreedt, dan wel opvolgt. In de eerste 13 studies hebben we ook de verticaliteit gemeten (machtsgevoel, socio-economische status, testosteron) en/of gemanipuleerd (machtspositie, status, dominantie). In de laatste studie hebben we bekeken of ideologische overtuigingen over sociale ongelijkheid (sociale dominantie oriëntatie) vergelijkbare effecten op verticaliteit hebben. Dit zou er op wijzen dat negatieve reacties op afwijkende mensen gedreven worden door hiërarchische belangen. Resultaten van een meta-analyse lieten zien dat hoog-verticale mensen minder macht toekenden aan normovertreders dan laag-verticale mensen. Het is belangrijk om te vermelden dat deze effecten opraden voor dispositionele verticaliteit maar niet voor situationele (gemanipuleerde) verticaliteit. Tot slot toonden de laatste studies aan dat een voorkeur voor sociale dominantie, die geassocieerd wordt met het verlangen naar geprivilegieerde posities in de samenleving, gerelateerd was aan lagere steun voor normovertreders. Over het algemeen ondersteunen deze bevindingen de gedachte dat het minder waarschijnlijk is dat een normovertreder gesteund zal worden door mensen die hoog in de hiërarchie staan, omdat deze mensen meer bezorgd zijn om hun eigen positie te verliezen.

In Hoofdstuk 5 werd dit idee verder uitgebouwd. Er werd bestudeerd of hiërarchische belangen de aandacht van het individu naar emoties leiden die informatieve waarde hebben met betrekking tot het in stand houden van hiërarchieën. We verwachtten dat aandacht voor de emoties van anderen afhankelijk is van de eigen hiërarchische belangen en het sociale signaal dat door de emotie uitgedragen wordt. Als de hiërarchie op het spel staat, zouden mensen die een hoge positie hebben alerter kunnen zijn op "aanval"-signalen om bedreigingen op hun status voor te kunnen zijn. Verder zouden mensen die een lage positie hebben alerter zijn op kwetsbaarheidssignalen, om zo meer controle te verkrijgen (Davis et al., 2011; Fischer & Manstead, 2008; Hess et al., 2009). We voorspelden daarom dat mensen hoog in rangorde en met hoge hiërarchische belangen meer aandacht zouden schenken aan uitingen van boosheid (d.w.z. aanvalssignalen), terwijl mensen laag in rangorde en met hoge hiërarchische belangen meer aandacht zouden schenken aan uitingen van angst (d.w.z. kwetsbaarheidssignalen). We testten deze voorspelling in drie studies, waarin hiërarchische belangen werden gemanipuleerd door toewijzing van een onterechte machtsrol of middels een *mismatch* tussen de eigen situationele en dispositionele macht. De resultaten lieten zien dat wanneer machtsrollen op een procedureel onrechtvaardige manier toegewezen werden of niet pasten bij macht als karaktertrek van een persoon, leiders het opkomen van gezichtsuitdrukkingen van boosheid bij anderen eerder opmerkten (Studies 5.1 & 5.2). Ook waren leiders langzamer in het waarnemen van het verdwijnen van expressies van boosheid (Studie 5.2). Verder waren ze nauwkeuriger in het herkennen van boosheid in ondergeschikten, terwijl ondergeschikten nauwkeuriger waren in het herkennen van angst in leiders (Studie 5.3). De conclusie is dan ook dat sociale omstandigheden die bezorgdheid over de eigen positie in de hiërarchie veroorzaken, fundamentele perceptuele processen beïnvloeden, zoals aandacht voor emoties die een strategische waarde hebben om de mogelijke ontwikkeling van de eigen positie binnen de hiërarchie beter te begrijpen.

Samengevat duiden de bevindingen van dit proefschrift erop dat het belangrijk is om rekening te houden met de context waarin normoverschrijdingen optreden om te kunnen begrijpen hoe en wanneer normovertreders hogerop komen in hiërarchieën. De reactie van

mensen op de zoektocht naar invloed van een overtreder blijkt afhankelijk van de heersende culturele waarden, de speelruimte in het domein waar de overtreding plaatsvindt en de positie van de waarnemer in de hiërarchie. Aan de ene kant zullen zowel collectivistische en strikte waarden als ook de hogere hiërarchische positie van de waarnemer het vermogen van de overtreder doen afnemen om hogerop te komen in politieke en organisatorische hiërarchieën. Aan de andere kant verhoogt het breken van de regels van de kunst zowel de invloed van de afwijkende kunstenaar als zijn positie in de artistieke hiërarchie. Samengevat kan gesteld worden dat omstandigheden die hiërarchische belangen voortbrengen zowel openlijke reacties op afwijkende personen als verborgen aandacht aan emotionele uitingen die relevant zijn voor de hiërarchische ontwikkeling beïnvloeden. We hopen dat vervolgonderzoek voort zal bouwen op deze bevindingen door de motivationele fundamenteën van hiërarchische ontwikkeling, de culturele variatie in het concept macht, verdere modererende invloeden van uitkomsten van normovertreding en de rol van het domein waarbinnen mensen reageren op normovertreders verder te onderzoeken.

Contributions to empirical chapters

Chapter 2

Stamkou, E., Van Kleef, G. A., Homan, A. C., Gelfand, M. J., Van de Vijver, A. J. R., Boer, D., van Egmond, M. C., Phiri, N., Ayub, N., Kinias, Z., Cantarero, K., Treister, D. E., Figueiredo, A., Hashimoto, H., Hofmann, E. B., Lima, R. P., & Lee, I-C. (2017). *Cultural collectivism and tightness moderate responses to norm violators: Effects on power perception, moral outrage, and leader support*. Manuscript in preparation.

The study was designed by E. S., G. A. v. K., A. C. H., and M. J. G. Data were collected by E. S., M. C. v. E., N. P., N. A., Z. K., K. C., D. E. T., A. F., H. H., E. B. H., R. P. L., & I-C. L. Data were analyzed by E. S., and A. J. R. V. d. V., D. B., A. C. H., and G. A. v. K. provided useful comments. The manuscript was written by E. S., and G. A. v. K., A. C. H., M. J. G., and A. J. R. V. d. V. provided valuable comments and revisions.

Chapter 3

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Chapter 4

Stamkou, E., Van Kleef, G. A., Homan, A. C., & Galinsky, A. D. (2016). How norm violations shape social hierarchies: Those who stand on top block norm violators from rising up. *Group Processes and Intergroup Relations*, 19, 608–629. doi: 10.1177/1368430216641305

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Chapter 5

Stamkou, E., Van Kleef, G. A., Fischer, A. H., & Kret, M. E. (2016). Are the powerful really blind to the feelings of others? How hierarchical concerns shape attention to emotions. *Personality and Social Psychology Bulletin*, 42, 755–768. doi:10.1177/0146167216636632

Studies were designed by E. S., G. A. v. K., and A. H. F. Data were collected and analyzed by E. S. The manuscript was written by E. S., and G. A. v. K., A. H. F. and M. E. K. provided valuable comments and revisions.

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Ti amo come se mangiassi il pane

spruzzandolo di sale

come se alzandomi la notte bruciante di febbre

bevessi l'acqua con le labbra sul rubinetto

come guardo il pesante sacco della posta

non so che cosa contenga e da chi pieno di gioia

pieno di sospetto agitato

ti amo come se sorvolassi il mare per la prima volta in aereo

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