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How Social Power and Its Perceived Legitimacy Affect Motivations and Behaviour

Submitted by Marco Filipe Magalhães da Silva Rego to the University of Exeter

as a thesis for the degree of

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Abstract

This thesis aims to investigate how powerless and powerful individuals and groups perceive and experience social inequalities and how they are motivated to respond to them. By combining existing knowledge of the effects of interpersonal power on motivations and behaviour with an account of the structure of intergroup relations (social identity theory), I examine the socio-psychological processes underlying these responses in power structures. Across four experiments, I investigate the perspective of both powerful and powerless individuals and show that the motivations and behaviour elicited by their power (or lack of it) are not invariant, but can be modified by the perceived legitimacy of their power position. Additionally, I also show that the powerless' behaviour is responsive not only to perceptions of legitimacy but also to concerns regarding impression management. I then focus on the perspective of powerful group members and demonstrate how perceptions of legitimacy and individual differences in social dominance orientation (SDO) interact to predict their willingness to engage in positive behaviour (i.e., helping intentions towards the powerless). Additionally, I demonstrate across two experiments that the help-providers position in the power structure (internal power holders vs. external observer) moderate how the interplay between legitimacy and SDO shape helping intentions. In sum, the six experiments reported in this thesis illustrate how the effects of social power on individuals responses to power imbalances is modified by perceptions of legitimacy, and also how illegitimate power promotes strategic responses that are reflective of specific identify-related concerns. Theoretical and practical implications are discussed.

Table of Contents

List of Tables 11

List of Figures 13

List of Appendices 15

Chapter 1: Overview 17

Chapter 2: Introduction 21

Social Power: Its Conceptualization 21

Intrapsychic Effects of Power on Motivation 23

Interpersonal Effects of Power on Behaviour 25

Effects of System Justifying Beliefs on Motivation and Behaviour 28

Social Identity and Effects of Intergroup Power Differences on Motivation and Behaviour 32

How (Il)Legitimacy of Power is likely to Affect Motivation and Behaviour 38

Effects on the powerful 39

Effects on the powerless. 41

The Present Research 43

Chapter 3: Examining How Perceptions of Legitimacy Modify the Effects of Power on Approach and Avoidance Motivations 47

Experiment 1 51

Method 51

Results and Discussion 54

Experiment 2 58

Method 60

Results and Discussion 62

General Discussion 70

Chapter 4: Examining How Perceptions of Legitimacy Modify the Effects of Power on Power-Related Behaviour 77
Pilot Study A: Selecting Chairs More or Less Associated With Power 84
Experiment 3 85
Method 85
Results 90
Discussion 94
Experiment 4 99
Method 102
Results 105
Discussion 114
General Discussion 118
Chapter 5: The Effects of Legitimacy of Power and Social Dominance Orientation on Help Offering by Powerful Group Members and by Third Party Observers 127
Experiment 5 136
Method 136
Results 141
Discussion 148
Experiment 6 150
Method 153
Results 157
Discussion 172
General Discussion 175
Chapter 6: General Discussion 183
Theoretical Implications 184

Practical Implications 195

Limitations and Directions for Future Research 198

Conclusion 204

References 205

Appendices 239

List of Tables

Table 3.1. *Frequency of Maze Selection per Experimental Condition* 56

Table 3.2. *Correlations Between Anger, Anxiety, Preference to Write About Duties, Preference to Write About Aspirations, and Maze Selection in Experiment 1* 57

Table 3.3. *Frequency of Maze Selection per Experimental Condition in Experiment 1 and Experiment 2* 64

Table 3.4. *Means and Standard Deviations for Morality, Sociability, Competence, and Entitlement (Number of Candy Taken), as a Function of Power and Legitimacy* 68

Table 3.5. *Correlations Between Morality, Sociability, Competence, Maze Selection, And Entitlement in Experiment 1 and Experiment 2* 68

Table 3.6. *Frequency of Maze Selection per Experimental Condition When Samples of Experiment 1 and Experiment 2 are Collapsed* 70

Table 4.1. *Frequency of Chair Selection per Experimental Condition in Experiment 3* 91

Table 4.2. *Means and Standard Deviations for Distance between Chairs, as a Function of Power and of Legitimacy in Experiment 3* 92

Table 4.3. *Correlations Between Perception of the Likelihood of Change, Acceptance of Power, Anxiety, and Anger in Experiment 3* 94

Table 4.4. *Frequency of Chair Selection per Experimental Condition, in Experiments 3 and 4* 107

Table 4.5. *Means and Standard Deviations for Distance between Chairs, as a Function of Power and of Legitimacy in Experiments 3 and 4* 108

Table 4.6. *Means and Standard Deviations for Friendliness and Relative Importance of Being Liked vs. Respected, as a Function of Power and Legitimacy* 110

Table 4.7. *Correlations Between Friendliness, Competence, Morality, Relative Importance of Being Liked (vs. Respected), Negative Affect, Chair Selection, and Distance between Chairs in Experiment 4* 113

Table 5.1. *Means and Standard Deviations for Overall Willingness to Help the Powerful and the Powerless, and for Type of Help Given to Each of These Groups, as a Function of the Legitimacy of the Power Structure* 148

Table 5.2. *Means and Standard Deviations for Perceived Morality of the Powerless, as a Function of Perspective and Legitimacy* 168

Table 5.3. *Correlations Between Overall Willingness to Help the Powerless, Dependency-related Help, High-Cost Autonomy-Related Help, Low-Cost Autonomy-Related Help, OutgroupFocused Concerns, Ingroup-Focused Concerns, Competence, Morality and Sociability in Experiment 6.* 172

List of Figures

Figure 5.1. Participants' willingness to provide low-cost autonomy-related help to the powerless as a function of perspective, legitimacy of power structures, and SDO. 160

Figure 5.2. Participants' outgroup-focused concerns as a function of perspective, legitimacy of power structures, and SDO. 162

Figure 5.3. Participants' ingroup-focused concerns as a function of perspective and SDO. 164

Figure 5.4. Descriptions of the competence of the powerless as a function of perspective, legitimacy of power structures, and SDO. 165

Figure 5.5. Descriptions of the morality of the powerless as a function of legitimacy of power structures and SDO. 167

List of Appendices

Appendix A: Mazes used in Experiments 1 and 2 to assess approach and avoidance motivations. 239

Appendix B: Summary of emotion item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 1).....241

Appendix C: Example of how participants placed the chairs used in Experiments 3 and 4 243

Appendix D: Summary of emotion item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 3).....245

Appendix E: Items of the PANAS scale (Watson, Clark, & Tellegen, 1988) used in Experiment 4 to assess positive and negative emotions. 247

Appendix F: 16-item social dominance orientation scale (Pratto, Sidanius, Stallworth, & Malle, 1994) used in Experiments 5 and 6. 249

Appendix G: Summary of reasons to help item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 6). 251

Chapter 1: Overview

"*There is no more reason now than there has ever been to believe that we are constrained by mysterious and unknown social laws, (...) decisions that are made within (...) human institutions, which have to face the test of legitimacy, and if they do not meet the test, they can be replaced by others that are more free and more just, as often in the past*".

Noam Chomsky, 2000 (p. 166)

The history of human societies and civilizations is marked by an essential characteristic that allows for their organization and structure: Cooperation between individuals at different levels of the social hierarchy. That is, the powerful act and the powerless follow (Arendt, 1969). History, however, also provides vivid examples of how this social organization is not always accepted and how people might sometimes behave in ways that are not expected of their social condition.

In 73 BC, Spartacus, a Roman slave turned gladiator, plotted and led an escape fighting his way free from the *Ludi Gladiatorum* (the gladiators' school). Once free, the escaped slaves, under the leadership of Spartacus, revolted against the Roman Republic in what was one of the major slave uprisings to date—The Third Servile War. In 1955, in the American state of Alabama, Rosa Parks refused to obey a bus driver's order that she was to give up her seat in the coloured section to a white passenger, after the white section was filled. Rosa Parks’ defiance proved to be a touchstone for the broader civil rights movement that profoundly changed race relations in the USA. In December 2010, a revolutionary wave of demonstrations, civil uprisings and major protests erupted across the Middle East and North Africa, instigated by the dissatisfaction with the rule of local governments, in what is now known as the Arab Spring. In all of these examples, people with no social power decided

to challenge social inequalities, and their actions had consequences for the social structures that framed their inequality.

At the same time, any History book speaks of powerful figures who became concerned about the sustainability of their standing. King John VI of Portugal, for example, questioned whether he could count on support from the nobility, the church and, importantly, from his people. Consequently, he became very hesitant in his decisions. Others, like Ivan IV ("the Terrible"), acted upon their concerns by instead becoming tyrants and brutal killers of their people.

Together, these examples illustrate that neither powerfulness nor powerlessness remain unquestioned, and that questioned power has consequences for both the powerful and powerless. But in mapping out the various possible responses to (questioned) power, what are the critical processes that guide action? The answer to this question might be found in the words of Chomsky, at the opening of this chapter: Perceptions of legitimacy. As suggested by Chomsky, if social hierarchies are perceived as illegitimate, alternative and more legitimate forms of power structures become conceivable. The perception of alternatives, in turn, has different repercussions depending on the implications of these alternative structures for the individuals concerned: The perceived illegitimacy of power might motivate a slave to revolt and pursue freedom, whereas this might motivate a ruler to become tyrannical towards his or her subordinates.

In this dissertation, I aim to contribute to an understanding of how both powerless and powerful individuals and groups perceive and experience social inequalities, and how they are motivated to respond to them on the basis of these perceptions. In the chapters that follow, I focus on one variable that has been shown to shape the perception of hierarchical social contexts—the perceived legitimacy of power structures. Specifically, I consider how perceived legitimacy might moderate the effects of social power on the extent to which

individuals are motivated to challenge or to protect social hierarchies. I also consider whether the interactive effects of power and perceptions of legitimacy are likely to influence the behavioural strategies that individuals employ when promoting or preventing power change. In so doing, I combine existing knowledge of the intrapsychic effects of interpersonal power on motivations and behaviour (e.g., Keltner, Gruenfeld, & Anderson, 2003) with an account of the structure of intergroup relations as provided by social identity theory (Tajfel, 1978; Tajfel & Turner, 1979) to specify the socio-psychological processes shaping motivations and behaviour in power structures.

In Chapter 2, I define the core concepts in this thesis and review research detailing the link between interpersonal power and motivation/behaviour. This leads to an identification of gaps in existing work and to the proposal that perceived legitimacy of social hierarchies is a potent moderator of traditional processes associated with power. This theoretical ground work is followed by three empirical chapters (Chapters 3, 4, and 5) that report the results of experiments examining the role of legitimacy in modifying the experience and expression of power.

In Chapter 3, I examine the role of perceptions of legitimacy in the motivations experienced by powerful and by powerless individuals. Complementing work on the intrapsychic effects of interpersonal power on approach and avoidance motivations, I show that illegitimate power reverses the link between power and approach, and powerlessness and avoidance, relative to when power is legitimate.

In Chapter 4, I investigate how (il)legitimate power influences power-related behaviour. Here I demonstrate how illegitimate (vs. legitimate) power structures render both powerless and powerful individuals more likely to engage in behaviour that contradicts their power positions. Specifically, under conditions of illegitimacy, the powerless adopt behavioural strategies aimed at claiming power (such as by engaging in behaviour that is

typically associated with power holders), whereas the powerful attempt to secure their power (such as by engaging in seemingly positive behaviour towards the powerless). Notably, I also show that power-related behaviour is not only determined by one's place in a power structure and its perceived legitimacy, but also by concerns regarding impression management in interaction with others.

In Chapter 5, I show how perceptions of legitimacy interact with individual differences in the preference for social hierarchy (i.e., social dominance orientation) to predict how power holders engage in positive behaviour (i.e., helping intentions towards the powerless) as a vehicle to reinforce power structures. Here I demonstrate that situational and individual difference variables promote the strategic provision of help by power holders only when they are implicated in the power structure, not when they are external to the power structure (but still in a position of power to help).

Chapter 6 summarises the findings that emerged across these chapters of empirical work, and discusses their collective implications and limitations. Finally, core conclusions are drawn for the theoretical, and social, understanding of power, and possible paths for future research are outlined.

Chapter 2: Introduction

Social Power: Its Conceptualization

Social power is a fundamental concept for understanding the structure and dynamics of social hierarchies. Many consider power to be a basic and pervasive force that stratifies and governs all social interactions (e.g., Cartwright, 1959; Russell, 1938). Indeed, power differences between individuals and groups are present in many, if not most, social groups and organizations (Magee & Galinsky, 2008; Sidanius & Pratto, 1999; Van Vugt, Hogan, & Kaisser, 2008). Similarly, many daily experiences demonstrate power asymmetries: The CEO who decides how the workers should be paid, the manager who decides the tasks that the employees have to work on, or the teacher who evaluates the student. All of these everyday situations reveal power imbalances between various social agents.

As central as power is to social life, it is hard to define (Fiske & Berdahl, 2007; Lukes, 1986). Nevertheless, social power has been defined in multiple ways, across various disciplines (Hofstede, 1980; Kramen & Neale, 1998). The ancient Athenians distinguished between legitimate and illegitimate power in terms of the interests it served (interests of all vs. interests of one or few). Others defined power as the control, coercion, and domination of the weak by the strong (Hobbes, 1968; Machiavelli, 1981). For Weber (1914, 1978), power corresponded to the possibility for one person to realize his/her objectives, even against opposition from others. Power has also been described as an ability to take action, not necessarily by coercive means, but as a prerequisite for agency (Arendt, 1969; Barnes, 1988; Parsons, 1964). Moreover, power has been shown to encompass the ability to influence others through charisma and expertise (e.g., French & Raven, 1959; Raven 2001).

The plethora of definitions illustrates the multi-faceted nature of power as a concept. However, when inspecting what these definitions have in common, what emerges is that power represents a capacity to control: To control the interests of others, even when facing

opposition; to control others through dominance or charisma; and to control our own destiny. Thus, approaches to power seem to concur in conceptualizing power as an ability to control others and oneself. This definition is consistent with the definition of power that is most often used in social psychological work that addresses the link between power and the motivation to change or reinforce power hierarchies. As such, in this dissertation I also define social power as reflecting the extent to which individuals or groups have control over resources (e.g., money, information, influence, ideologies) that other people need or want (Fiske, 1993; Fiske & Berdhal, 2007; Thibaut & Kelley, 1959).

By defining power as control, social psychologists have demonstrated how power affects people's perception, cognition, and behaviour. If power equals control then those in power occupy a privileged position in which they are able to create and maintain social inequalities. Research has indeed shown that power holders perceive the world and behave towards others in ways that help perpetuate their powerful position: Cognitively, they are selective about the information they search, looking for clues that confirm their ideas (Guinote, 2007a) and they tend to stereotype their subordinates more than they are stereotyped by them (Fiske, 1993); behaviourally, they are also more inclined to discriminate in favour of their group (Sachdev & Bourhis, 1985).

It has also been demonstrated that power positions evoke certain motivational states. These motivational states can help to explain the cognitive and behavioural consequences of power. But motivational states might also help to understand when individuals seek to promote social change or, otherwise, when they seek to prevent it. In the next sections, I will elaborate on this literature connecting power, motivations, and orientations to social change. As a prelude to this, I will first review past research on the intrapsychic effects of power on individual motivations and how these influence behaviour systems. I will then examine the effects of power on interpersonal behaviour, specifically how powerful and powerless

individuals communicate their power (and lack of it) through their actions. Since the aim of this thesis is to provide a social-psychological account of the conditions that might propel social change, in what follows, I focus on the specific motivations and behaviour that might help understand when and why social change occurs or, alternatively, when it is resisted.

Intrapsychic Effects of Power on Motivation

Recently, researchers have begun to examine the intrapsychological link between social power (mainly interpersonal power) and motivation. This refers to how having or not having social power affects psychological processes. In this work, power has been specifically linked to motivational states of approach and of avoidance. The motivation to approach and the motivation to avoid reflect two fundamental hedonic principles that drive our actions: The motivation to obtain pleasure and the motivation to avoid pain (e.g., Carver & Sheier, 1999; DePue, 1995; Elliot & Covington, 2001; Elliot & Harackiewicz, 1996; Gray, 1991, 1994). The motivation to approach is activated when individuals try to reduce the difference between their current state and their desired end state, such as the pleasure of obtaining rewards. Conversely, the motivation to avoid is activated when individuals wish to maintain or increase the distance between their current state and an undesirable end state, such as pain (Carver & Sheier, 1999).

By definition, approach motivation orients individuals towards the rewards or needs that they wish to satisfy. Consequently, this motivational state promotes responses that facilitate the pursuit and achievement of goals associated with desired rewards. These processes form the behavioural approach system and range from cognitive assessments of reward-related contingencies, to affective states, and to behaviours that, ultimately, lead individuals to a desired end state (Keltner, Gruenfeld, & Anderson, 2003). On the other hand, avoidance motivation is activated by anticipated threats and punishments, and thus facilitates processes that lead to the avoidance of unwanted outcomes. These processes involve affective

states of anxiety, heightened attention to punishment-related contingencies, and behaviours that aim to inhibit and avoid undesired end states (Keltner et al., 2003). These form the behavioural inhibition system (Keltner et al., 2003).

Keltner et al. (2003) proposed that because social power is defined by having control over resources and punishments, it is an important social dimension that might influence approach and avoidance motivations, which these authors label as approach and inhibition. Their approach/inhibition theory of power (Keltner et al., 2003) argues that power activates the behavioural approach system whereas powerlessness activates the behavioural inhibition system. Because power holders live in environments that are rich in resources (money, food, information, etc.) and, by virtue of their independence from others, they are not bounded by social evaluations. This leads the powerful to display relatively unconstrained actions, which reflect their experience of approach motivation. Indeed, consistent with this idea, powerful people tend to take more risks, to be more extraverted, to talk and interrupt more, and to display more responses connected to the approach motor system than individuals with less or no power (e.g., Anderson, John, Keltner, & Kring, 2001; DePaulo & Friedman, 1998; Maner, Kaschak, & Jones, 2010). Compared to the powerful, powerless people have access to fewer resources and are more subject to social threats, punishment, and more concerned with how they are evaluated by others (e.g., Anderson & Berdahl, 2002; Fiske, 1993; Steele & Aronson, 1995). As a result, powerless people tend to be oriented towards behavioural inhibition, which is even reflected in postural constriction and reduced gestural activity (e.g., Carney, Cuddy, & Yap, 2010; Ellyson & Dovidio, 1985).

Possessing power enhances not only cognitive performance, but also psychological and physical well-being (e.g., Anderson & Berdhal, 2002; Guinote, 2007b; Smith, Jostmann, Galinsky, & van Dijk, 2008). Elaborating on the motivational approach to power, recent research has documented psychophysiological mechanisms that shed light on the

psychological and physical outcomes linked to actions of approach and avoidance among the powerful and the powerless, respectively (e.g., Scheepers, de Wit, Ellemers, & Sassenberg, 2012). This research has shown that when individuals perceive that they possess resources that exceed the demands of the context (such as high-power individuals), they feel challenged and are able to mobilize their bodily resources, exhibiting effective cardiovascular responses and approach-related actions. On the other hand, when the demands of the context are perceived to outweigh the resources (such as when individuals are powerless), individuals feel threatened and exhibit inefficient cardiovascular resources, which might inhibit their movements (Scheepers et al., 2012; see Blascovich, 2008; Blascovich & Tomaka, 1996 for the biopsychosocial model of threat and challenge).

Interpersonal Effects of Power on Behaviour

Research into the effects of power on the motivational processes of powerful and powerless individuals provides insights into their behavioural responses: Power holders are more likely to experience approach motivation which is reflected in their propensity for action and disinhibition. In contrast, the powerless are more likely to experience avoidance, which renders their actions more inhibited. But power is not just an internal, intrapsychic experience. Power is also enacted and expressed towards others during interpersonal exchanges.

Because power is accompanied by affordances (i.e., powerful individuals have more access to and control over resources than the powerless), powerful individuals are able to act with less fear of reprisals (Anderson & Berdahl, 2002; Keltner et al., 2003), and consequently power holders are also freer to demonstrate and display the power that they have. For example, compared to their subordinates, power holders are louder and speak more, they gesticulate more, are less polite, and maintain more eye contact when they speak, but less when they listen (e.g., DePaulo & Friedman, 1998; Dittmann, 1972; Dovidio & Ellyson,

1985; Keltner, Van Kleef, Chen, & Kraus, 2008; Judge, Bono, Ilies, & Gehardt, 2002). More generally, powerful individuals tend to occupy more space, to adopt more expansive body gestures, and to interrupt others more when they speak than do individuals with less power (Carney, Hall, & Smith LeBeau, 2005; Hall, Coats, & Smith LeBeau, 2005; Yap, Wazlawek, Lucas, Cuddy, & Carney, 2013). In sum, prior work has shown that power holders orient their behaviour in ways that not only provide cues for the detection of their relative superiority, but, ultimately, also reinforce this superiority. Indeed, exerting a specific (non-) verbal behaviour so it communicates greater relative power also contributes to the confirmation of that power and its stability over time (e.g., Keltner, Gruenfeld, Galinsky, & Kraus, 2010; Ng & Bradac, 1993).

Conversely, because the powerless have access to fewer resources and, by definition, more subject to control and sanction than the powerful, they tend to be more thoughtful of their actions and avoidant of disapproval from power holders (Anderson & Berdahl, 2002; Keltner et al., 2003). The powerless therefore adopt behaviour that is often complementary to that exhibited by the powerful. That is, they demonstrate their lower power. For example, in comparison to power holders, low-power individuals are more passive and withdrawn (Moreland & Levine, 1989), their body posture is more restricted and their gestures more controlled (e.g., Dovidio & Ellyson, 1985), and they tend to speak out less (Noelle-Neumann, 1974). Thus it seems that, like power holders, the powerless also embody the power they have. These behavioural reflections of power differences are likely to communicate acceptance of power differences and contribute to the maintenance of social inequalities.

Together, these lines of research examining the motivational and interpersonal dimensions of power suggest a deterministic relationship between power and motivations, and power and behaviour: The powerful are motivated and able to act towards others in ways that maintain their power position, and those who have reduced power are act in ways that

allow them to do this. However, it is clearly not the case that power uniformly determines individual thought and action. As noted in the previous chapter, history provides vivid examples of individuals and groups that, at times, behave in ways that do not obey this linearity. Those who have played important roles in social change, from Spartacus, to Rosa Parks or Martin Luther King, might have been concerned about reprisals. But, avoiding these negative outcomes was certainly not their primary goal. Indeed, recent research suggests that resistance to power is perhaps the most common response to authority, and that compliance might be the outlying phenomenon (e.g., Haslam & Reicher, 2012; Reicher & Haslam, 2011). Even though recent models of the relationship between power and motivations suggest that the power-approach link is likely to be moderated by social variables, for example the stability of power relations (Keltner et al., 2003), research looking at the effects of interpersonal power often characterizes and examines a linear power-approach/powerlessness-avoidance relationship. I therefore propose that the linearity between power and motivations to approach/avoid should be questioned and experimentally examined, and that doing so might shed light on the conditions under which societal change is likely to be resisted or promoted.

One reason for the current, relatively linear, understanding of power and its consequences is that research has primarily examined contexts in which elevated (or lessened) power positions are already established. Yet, rather than being permanent, power is dynamic, and can be continually negotiated during social interactions. In addition to showcasing their power, power holders can become motivated to defend it (e.g., when power is threatened by others) and people who do not have power can be motivated to seek it. Thus, research linking interpersonal power to behaviour portrays power relations as rather stable and fails to account for numerous examples of societal change.

In sum, to date research on power has focused on the motivations associated with different positions of power and on the behaviour that conveys it. Less attention has been given to the factors that modify the relationship between power and motivation, and between power and behaviour. To start questioning this linearity, I now turn to research on the intergroup dynamics. In this body of research, questions about the acceptance versus rejection of the status quo, and the social and psychological factors that guide these responses, has been a stronger focus of examination. I propose that insights from research on intergroup relations suggest conditions under which the relationship between power, motivation, and behaviour might be modified, or more profoundly changed.

Effects of System Justifying Beliefs on Motivation and Behaviour

The social psychological literature on intergroup relations provides a theoretical background to examine how power relations can be accepted, reinforced, and changed. As in the research reviewed in the prior sections, one focus of theories of intergroup relations has been on finding explanations for why social structures are so often reinforced and why individuals so often reproduce power differences (Reicher & Haslam, 2006). System justification theory (SJT: Jost & Banaji, 1994) and social dominance theory (SDT: Sidanius & Pratto, 1999), for example, both seek to address the question of why power structures are legitimized and maintained, with less attention given to the converse question of social change and when and how this emerges. Still, these theories provide examples of how members of the same group (both high and low power) might experience distinct motivations for, and act differently towards, the maintenance of social hierarchies.

According to SJT, people endorse system justifying beliefs (SJB), such as a meritocratic view of the world, because they are motivated to protect the perception that social hierarchies are legitimate and fair (Jost & Hunyady, 2005; Jost, Pelham, Sheldon, & Sullivan, 2003). This theory proposes a fundamental need to believe that social systems are

legitimate, and argues that individuals develop systems of belief that help fulfil this need. The need to believe in a just system is thought to stem from a desire to gain a sense of meaning and control of the social world (Lerner, 1980; Wakslak, Jost, Tyler, & Chen, 2007). However, people differ in the extent to which they endorse these beliefs, that is, they differ in their motivation to justify social arrangements (e.g., Jost & Burgess, 2000; Jost, Burgess, & Mosso, 2001).

Although differences in the extent to which the powerful and the powerless are motivated to rationalize power positions as fair and deserved often mirror their positions in the power structure (e.g., Jost, Banaji, & Nosek, 2004; Jost & Hunyady, 2002), past work has shown that SJB differences can emerge within powerful and within powerless groups, influencing individual motivations and concomitant actions. For example, within advantaged groups, individuals who endorse SJB are less likely to support the redistribution of resources and less willing to help the powerless than are advantaged group members for whom SJB are endorsed more weakly (Jost, Wakslak, & Tyler, 2005). On the other hand, within powerless groups, individuals who strongly endorse SJB are less likely to perceive discrimination towards their ingroup (Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002) and are more likely to evaluate powerful outgroups more favourably than their ingroups (Jost et al., 2004), compared to individuals who weakly endorse SJB. Thus, to the extent that people who endorse SJB are more motivated to justify the existing social system, they are more inclined to protect power hierarchies than those who weakly endorse SJB (e.g., Jost & Banaji, 1994; Jost & Hunyady, 2002).

In line with this reasoning, SJT suggests that the motivation to oppose power inequalities and attempts to change the status quo might emerge when individuals hold weak system justifying beliefs. However, SJT has yet to provide an examination of when and how power relations might change as a function of these beliefs. As such, SJT is more concerned

with the question of why people are more or less accepting and willing to reinforce social systems (even when these are unequal and unjust) and is less concerned with explanations regarding the possibility of reversing power distributions and creating alternative social systems. In sum, SJT seems to suggest that the motivations and behaviour of high- and low-power individuals and groups might be determined by a fundamental need to perceive the world as just and social hierarchies as fair, and not only by the power positions they occupy.

Similarly, social dominance theory (SDT) suggests that group members develop legitimizing ideologies (that is, a set of beliefs, attitudes, values, or group stereotypes) that provide intellectual and moral support for social inequality (Sidanius & Pratto, 1999). However, the degree to which one aspires to unequal and stratified relations between social groups is also said to vary according to individual differences in the motivation for social dominance, something that theorists in this tradition term social dominance orientation (SDO). Depending on whether individuals hold high or low levels of SDO, individuals are said to support hierarchy-enhancing or hierarchy-attenuating policies and behaviour (e.g., Bettencourt, Dorr, Charlton, & Hume, 2001; Guimond, Dif, & Aupy, 2002; Levin, 2004; Mullen, Brown, & Smith, 1992; Sidanius, Levin, Federico, & Pratto, 2001). Relative to low SDO, individuals and group members who are high in SDO are more attuned to threats that jeopardize the organization of current power structures and, thus, are more motivated to defend and reinforce the existing power distribution. For example, compared to low SDO, those high in SDO stand against affirmative action (which could lead to the empowerment of the disadvantaged and, thus, threaten the superiority of the advantaged) and are less supportive of immigrant-friendly policies (e.g., Esses, Dovidio, Jackson, & Armstrong, 2001; Pratto & Lemieux, 2001; Sidanius, Pratto, & Bobo, 1996). SDT therefore suggests that feelings of power are not sufficient when explaining why people enact power or powerlessness: Dominant (or powerful) group members with less moral objections to the

status quo (that is, high in SDO) should be more motivated to enact power and to reinforce their superior position than dominant group members with moral concerns regarding social inequalities.

On the other hand, although SDT acknowledges that SDO is negatively associated with hierarchy-attenuating forces (meaning, low SDO individuals are more inclined to support the dissipation of power imbalances), it predicts that alternative forms of societal organization occur very rarely and, ultimately, do not last (Sidanius & Pratto, 1999). That is, SDO is proposed to dominate and to be more strongly endorsed by those in power, with the result that social hierarchies are likely to be maintained rather than challenged. For example, Sidanius and Pratto (1993, p. 207) state that "social policy efforts directed at the eradication of inequality and discrimination (...) will not only fail to achieve their publicly stated goals, but the efforts themselves will be ultimately unsustainable." Thus, even if dissatisfaction and resistance from those who object to the status quo (individuals low in SDO) emerges, societies will inevitably be structured as a hierarchical equilibrium based on group dominance. Thus, SDT does not seem to account for the possibility that power relations can change.

Taken together, both SJT and SDT suggest that how individuals and group members experience power relations, how they are motivated to cope with their hierarchical position and, ultimately, how they behave towards the acceptance of power structures might not be solely dependent on their high or low power. Instead, these accounts provide evidence that individual inclinations to perceive the world as just (SJB) and to legitimize social disparities (SDO) might also influence individuals' motivations and behavioural choices, especially when reinforcing social hierarchies. However, because such modes of thought are also argued to be pervasive across both powerful and powerless groups, and to especially dominate the thinking of those in power, SJT and SDT both arrive at the position that hierarchical social

systems are most likely to be protected and reinforced rather than opposed and changed. However, as the previous chapter illustrates, history offers a plethora of examples (like the events leading to the American Civil Rights Movement) of how societies do change. Thus, these perspectives do not seem well-placed to account for the full range of responses to unequal power.

Social Identity and Effects of Intergroup Power Differences on Motivation and Behaviour

Valuable insights into when power is accepted and reinforced or instead resisted and changed can be gained from research that examines intergroup processes and how powerful and powerless groups respond to opportunities provided by the social context. Social identity theory (SIT, Tajfel, 1978; Tajfel & Turner, 1979) theorizes about the relations between groups that differ in status and the conditions under which these status relations are questioned. Accordingly status, rather than power, is a central concept in SIT. However, whereas power and status are not overlapping concepts, they do often coincide. Indeed, whereas social power refers to the control that an individual or group has over its fate and the fate of others, status can be defined as the product of an evaluation of attributes and qualities that result in respect to differences towards individuals or groups (French & Raven, 1959; Kemper, 1991). It is possible to conceive of high status without power (e.g., a religious leader in line at the Burger King) and also of high-power without high status (e.g., corrupt politicians). Nevertheless, since status often determines power, and vice-versa, power and status are often inextricably linked (Boldry & Gaertner, 2006; Keltner et al., 2003). In addition, at the intergroup level, powerful groups do tend to be regarded as high status, to the extent that some theoretical approaches do not even see a need to distinguish between the two (Fiske, Cuddy, Glick, & Xu, 2002).

According to SIT, individuals strive for a positively distinct social identity. Social identity refers to that part of an individual's self-concept that derives from their social group memberships. The extent to which an individual identifies with a particular social group corresponds to the extent to which they see themselves as a member of that group together with the emotional value that this membership provides (Tajfel, 1978). By comparing the status of their in-group with a relevant out-group on a specific dimension, individuals are able to infer how favourable their group's relative position is: That is, their status (Tajfel & Turner, 1979). When a social comparison turns out to be favourable to the in-group, this membership will impact positively on the social identity of its members (e.g, Rijsman, 1983; Sachdev & Bourhis, 1985) and, consequently, on their self-concept and self-esteem. However, social comparisons may also result in unfavourable evaluations of the in-group, resulting in unsatisfactory social identities, which negatively affect the self-concept and self-esteem (e.g., Wagner, Lampen, & Syllwasschy, 1986).

When a group fails to provide its members with a positive social identity, individuals can adopt three main strategies to cope with this situation: They may leave their group and try to become members of a new (higher-status) group (individual mobility strategy); when individual mobility is not possible or wanted, group members may try to change elements of the comparative situation so as to favour the ingroup, for example by comparing the ingroup to the outgroup on a new dimension on which they are more positively evaluated (a social creativity strategy); or they may try to enhance the social position of the group as a whole (social change strategy, Tajfel, 1978). SIT proposes that the motivational processes that determine which strategy is likely to be used to (re)claim a positive social identity depend on the perceived properties of the social structure, Specifically, these strategies are guided by perceptions of three structural properties of the intergroup relations: The permeability of

group boundaries, the stability of status relations, and the legitimacy of status relations (Ellemers, 1994; Tajfel & Turner, 1979).

When members of a low-status group perceive group boundaries as permeable, they often enhance their social identity by (psychologically or physically) changing their group affiliation (Tajfel, 1975, 1978). Stability of group status refers to the extent to which individuals perceive an opportunity to reverse the social position for the group as a whole. Legitimacy of the status relations refers to the extent to which group members consider the social arrangement they are in to be fair and legitimate (Tajfel, 1981). Members of low-status or powerless groups are inclined to accept the status quo when they perceive it to be stable and/or legitimate. However, when group members perceive status relations to be unstable or illegitimate they are motivated to join their group and attempt to change the status quo (e.g., Ellemers, van Knippenberg, de Vries, & Wilke, 1988; Ellemers, van Knippenberg, & Wilke, 1990).

Although research on intergroup processes from a social identity perspective has not focused as much on power as on status, research that has examined power from this perspective reveals that the effects of group power are not dissimilar to the effects of group status. For example, Ng (1980, 1982) demonstrated that members of powerful groups show greater ingroup bias in resource allocations than members of powerless groups (see also Sachdev & Bourhis, 1985). In a subsequent program of research examining the relation between group power, group status, and group size (majority vs. minority groups), Sachdev and Bourhis (1991) demonstrated that ingroup bias was a function of all three of these factors. That is, these researchers revealed that high-power/high-status minorities showed the most ingroup bias, whereas low-power/low-status minorities discriminated the least and actually displayed outgroup favouritism. This finding is interesting in that it may be taken to suggest that concerns surrounding the security of power positions (that is, security in

numbers) might guide group members' behaviour and their willingness to "seek more" for their own group *vis-à-vis* outgroups (Sachvdev & Bourhis, 1991; Spears, Greenwood, de Lemus, & Sweetman, 2010).

Researchers taking a social identity approach have conceived of power as a property of group members who are perceived to legitimately embody the group's identity (Haslam, Reicher, & Platow, 2011;Turner, 2005). In this sense, power is inseparable from legitimacy (e.g., Simon & Oakes, 2006). For example, for Turner (2005) power emerges from identification with the group and, through social influence, it becomes legitimate, which then facilitates the control over resources (Turner, 2005). Power acquired via identification would require a willing subjugation from the powerless and, thus, would be easier to withstand than power operating merely through control over resources (Simon & Oakes, 2006). Legitimacy therefore holds a crucial role to effective power: When an individual or a group is not deemed as a legitimate authority, it is unlikely that others will follow it.

While I acknowledge that power and legitimacy can be seen as intrinsically connected, it is also important to consider situations where they are separable. In doing so, I believe that we can gain further knowledge about the dynamics of power relations and the circumstances under which the status quo might be challenged. Therefore, in the current thesis I aim to examine how perceptions of legitimacy affect interpersonal power and its outcomes. For analytic purposes, in this thesis I keep the definitions of power and legitimacy relatively independent. I will therefore define power as the ability to control the outcomes of others—a definition that has been used in most work examining power at the interpersonal level (e.g., Keltner et al., 2003), and in some of the work that examined power dynamics from a social identity perspective (e.g, Sachdev & Bourhis, 1985, 1991; Ng, 190, 1982).

In this way, research examining social identity and intergroup status relations seems to suggest that the relationship between power (and status) and motivation/behaviour, far

from being linear, is likely to be moderated by perceived properties of the social structure, such as the legitimacy of status differences. However, research in this area has not yet provided a detailed analysis of how social power affects the motivations to approach and to avoid and how this, in turn, affects behaviour that promotes or prevents social change. My aim is thus to integrate knowledge from the intrapsychic implications of power to understand the psychological mechanisms underlying feelings of interpersonal power and their link to motivation and behaviour, with knowledge from the social identity approach to situate these processes in the social context and the opportunities it provides.

Most prior theorizing and research on the effects of the contextual variables that define power (and status) structures has addressed intergroup relations (e.g., Ellemers et al., 1988, 1990; Ng., 1980; Sachdev & Bourhis, 1991; Tajfel, 1981; Turner & Brown, 1978) and seems to suggest that the perception of a social interaction as collective rather than interpersonal is a prerequisite for social change (see Drury & Reicher, 2000; 2009; Reicher, 2001; Stott & Reicher, 1998; Smith & Spears, 1999). In the present thesis however, most of the empirical chapters will address interpersonal power differences of the kind emphasized by Keltner et al. (2003). Given that individuals perceive other people (including powerful and powerless individuals) differently depending on whether they are seen as members of a group or as separate individuals (e.g., Abelson, Dasgupta, Park, & Banaji, 1998; Dépret & Fiske, 1999), it is not immediately obvious that principles from research on intergroup power differentials can be applied to interpersonal power contexts. However, interpersonal power structures, just like intergroup ones, are not absolute and power can also be negotiated during interpersonal interactions—under certain conditions, interpersonal power structures can change. For one thing, social relations at both interpersonal and intergroup level are often closely linked to self-enhancement, that is, individuals and group members are motivated to maintain or enhance a positive self-concept and self-esteem (e.g., Gaertner, Sedikides, &

Graetz, 1999; Leary, 1999; Leary & Baumeister, 2000; Sedikides, Gaertner, O'Mara, 2011). The gaps between interpersonal and intergroup relations make it especially important to investigate the role of socio-structural properties in both contexts. By applying intergroup principles addressing power change to interpersonal power relations, I therefore aim to cross-fertilize ideas between intergroup and interpersonal perspectives of social power. That is, I aim to situate the power dynamics of interpersonal interactions (which are often characterised in the literature by a linear relationship between power and motivation/behaviour) within social contexts and the properties than define them, and examine whether powerful and powerless individuals respond differently to power disparities depending on their perception of the variables that define these inequalities. Ultimately, I intend to identify the social conditions that render individuals more likely to protect their superiority or to upgrade their social standing.

Social psychological research has indeed started to apply principles of intergroup power relations to interpersonal power relations. Specifically, the socio-structural properties that define intergroup power structures might help understand how high- and low-power individuals perceive their interpersonal power and how they are motivated to respond to this perception. Previous work has indeed shown that the stability of power relations is a potent moderator that confers *meaning* to power and status differences (see Mehta & Knight, 2015; Sapolsky, 2005). For example, research looking at stress demonstrated that both humans and animals respond differently to perceptions of stable and unstable hierarchies. Sapolsky showed that lower ranked baboons show most hormonal signs of stress when the hierarchy of their group is stable, but it is the higher ranked baboons that show most hormonal stress when group hierarchy is unstable (Sapolsky, 1983, 2005). Extending this reasoning to humans, Mehta and Knight showed that high status individuals show less signs of hormonal stress than low status individuals when hierarchies are stable, but instability reverses this pattern (Mehta

& Knight, 2015). The implications of perceptions of stability have also been show to guide powerful and powerless individuals' responses in different domains: Relative to when power is stable, under power instability high-power individuals have been shown to be risk-averse (Maner, Gailliot, Butz, & Peruche, 2007), to fear highly qualified group members (Maner & Mead, 2010), and to be more centred on a local attentional focus and, consequently, to be less creative (Sligte, de Dreu, & Nijstad, 2011).

Less attention however, has been given to the role legitimacy in defining interpersonal power relations. Stability and legitimacy often have similar consequences as both properties signal the security of power structures—that is, both unstable and illegitimate power relations render cognitive alternatives to the social system more salient and, therefore, signal a possibility for social change (Tajfel & Turner, 1979). Yet, (in)stability and (il)legitimacy do not necessarily co-occur. That is, power structures can be simultaneously unstable (indicating a possibility of change) and legitimate (indicating the deservingness and adequacy of power positions). Thus, even when clear opportunities for power change are salient (unstable power), individuals' responses might still be constrained by the perception that they deserve their current power position, which might undermine the motivation to change power structures (by the powerless) and the motivation to protect a legitimate and adequate social system (by the powerful). It is thus critical to understand the role of perceptions of legitimacy of power in shaping individuals' motivation to approach or avoid power change.

How (Il)Legitimacy of Power is Likely to Affect Motivation and Behaviour

Past work on social identity and intergroup relations has not yet provided a direct examination of the potential effects of perceived legitimacy on motivations to approach and to avoid. Instead, individual's and group's motivation to approach or avoid social change are inferred by examining cognitive processes, emotions, and behaviour that are assumed to be related to either approach or avoidance tendencies. Still, this work suggests that the perceived

legitimacy of power relations is key in understanding when individuals and group members are motivated to accept or resist the status quo, and the behavioural responses that follow from these motivations (mostly researched as intentions or behavioural tendencies). Similarly, leadership effectiveness has been described as hinging on perceptions of the leader as legitimate (e.g., Pfeffer, 1981; Martin, Scully, & Levitt, 1990). As long as differences in power are perceived to be legitimate, members of high and members of low-power groups may avoid social comparison, either because legitimate hierarchies are imprinted with cooperation or because in such conditions of legitimacy both the powerful and the powerless can be conceived as fundamentally distinct (Yzerbyt, Corneille, & Estrada, 2001; Yzerbyt, Rocher, & Schadron, 1997). For example, prior research has shown that, unless their attention is directed to gender discrimination, women tend to compare themselves to other women, instead of with men, preventing their detection of differences in how men and women are treated (e.g., Major, 1994; Major, McFarlin, & Gagnon, 1984). On the other hand, when facing clear illegitimacy, powerful individuals may put into action a set of strategies to protect their privileged position, whereas powerless individuals may decide for strategies that will possibly improve their unfavourable social position (Ellemers, Wilke, & van Knippenberg, 1993; Rodríguez-Bailón & Moya, 2002).

Effects on the powerful. Contrary to what had originally been documented by Keltner and colleagues (e.g, Anderson et al., 2001; Keltner et al., 2003), research on the interplay between power (rather than status) and legitimacy shows that power does not always lead to approach motivation and related behaviour. In fact, when power is illegitimate, powerful individuals tend to experience anxiety-related emotions, such as guilt, unease, and even fear (Montada & Schneider, 1989; Smith, Jost, & Vijay, 2008), emotional states that have been related to avoidance tendencies (e.g., Bartels, Magun-Jackson, & Ryan, 2010). These findings might be understood by reference to the enhanced motivation that

illegitimately powerful individuals experience to protect their position and to avoid losing their power (Ellemers, Doosje, van Knippenberg, & Wilke, 1992). Research suggests a three contrasting types of behaviour that might be used by the powerful in the service of this goal: Inaction, emphasis of superior power, and pro-social behaviour.

As examples of inaction, one may cite a tendency not to enact power. Indeed, because the illegitimately powerful experience anxiety and inhibition when hierarchies are illegitimate, the powerful might become reluctant to enact their power. For example, they might be less eager to take risks, be less willing to engage in negotiation, and be more restrained by concerns regarding their physical safety (e.g., Goff, Epstein, Mentovich, & Reddy, 2013; Lammers, Galinsky, Gordijn, & Otten, 2008).

An alternative pattern has also been demonstrated, with power holders responding to illegitimate power by emphasizing their power. For instance, Reicher and Haslam (2006, 2015) showed that perceived illegitimacy led powerful group members to be more willing to exert their authority, even to the point of suggesting the use of military uniforms to signal their power and, ultimately, to protect the status quo. Power holders have also been found to respond to illegitimate power by stereotyping the powerless (Rodríguez-Bailón, Moya, & Yzerbyt, 2000), and by intending to surround themselves with incompetent subordinates such that, by comparison, their position remains unquestioned and their power unthreatened (Rodríguez-Bailón, Moya, & Yzerbyt, 2006).

A very different response is to engage in seemingly positive behaviour, such as that often exhibited by slave owners in the South of the United States towards slaves that directly served the household, who were frequently protected and treated as members of the family (Jackman, 1994). Power holders can display seemingly positive behaviour by seeking social and physical closeness to their subordinates (Lammers, Galinsky, Gordijn, & Otten, 2012; Mead & Maner, 2012). Because closeness reflects a desire for positive and intimate relations

(e.g., Geisen & McClaren, 1976; Gifford & O'Connor, 1986), this might constitute an attempt to appease the powerless (Jackman, 1994). Alternatively, closeness might express a more genuine desire to concede power, so as to ameliorate the threat to the status quo that surrounds illegitimate power distributions (e.g., Chow, Lowery, & Hogan, 2013).

Finally, recent research has also suggested that the powerful can cope with their illegitimate power by being strategic about the type of pro-social actions they chose to adopt. Providing help, for example, can be a strategic tool when reinforcing power over others, while at the same time projecting and maintaining a positive image of oneself, that is, to be seen as helpful and kind (e.g., Grusec, Kuczynski, Rushton, & Simutis, 1978; Kraut, 1973). When power differences are perceived to be illegitimate, forms of assistance that render the powerless more dependent on power holders are more likely to be offered than forms of assistance that might contribute to their independence, since this would lead to an imbalance in power relations (e.g., Nadler, 2002; Nadler, Harpaz-Gorodeisky, & Ben-David, 2009). Ultimately, this is likely to contribute to the consolidation of the current status quo.

Effects on the powerless. On the other hand, there is evidence suggesting that powerless individuals are motivated by illegitimate power structures to approach change, which contrasts with the idea that the powerless typically behave in avoidant ways (e.g., Keltner et al., 2003). Indeed, illegitimate (vs. legitimate) social systems lead the powerless to perceive their position as less acceptable and to experience anger-related emotions (Lerner & Keltner, 2001), which, in turn, are associated with the approach, rather than the inhibition, behavioural system (Harmon-Jones & Allen, 1998). In addition, the illegitimately powerless persist longer in the face of difficulties and are focused on aspirations and on what they can achieve, which are cognitive processes also associated with approach motivation (e.g. Willis, Guinote, & Rodríguez-Bailón, 2010; Willis & Rodríguez-Bailón, 2010).

With respect to behaviour, it has been suggested that the powerless respond to illegitimate power structures by engaging in approach-related behaviour (Lammers et al., 2008) that expresses the willingness to improve their position in social structures. Compared to research focusing on the powerful, work examining how the powerless face illegitimacy has provided consistent examples of their intentions to protest and oppose the powerful. Reicher and Haslam (2006, 2015), for example, showed that the powerless responded to an illegitimate social system by being eager to challenge power holder's authority, such as by refusing to obey their orders and throwing food to the ground as a sign of protest.

Similarly, research on collective action suggests that powerless group members respond to illegitimacy by resisting the powerful and objecting to them. Collective action refers to forms of action that are taken together by a group of people with the goal to enhance their power (and status) and, thus, with the common objective to promote changes in power distributions (for a more complete account on collective action see Drury & Reicher, 2005; Iyer & Van Zomeren, 2009; Van Zomeren, Postmes, & Spears, 2008). Research on this topic has shown how the illegitimately (vs. legitimately) powerless express greater willingness to engage in marches, boycotts, petitions and riots, such that an improved position of their group can be achieved (e.g., Simon, Loewy, Stürmer, Weber, Freytag, Habig, Kampmeier, Spahlinger, 1998; Van Zomeren & Iyer, 2009; Van Zomeren & Klandermans, 2011; Van Zomeren et al., 2008).

Taken together, this research indicates that both powerful and powerless individuals and group members are attuned to the opportunity for change that is embedded in illegitimate hierarchies. Yet, this has different implications for power holders and for the powerless: In the face of illegitimacy, the powerful seem to experience avoidance and follow behavioural strategies aimed at securing their power, whereas the powerless seem to experience approach

and, consequently, adopt behavioural responses expected to oppose the authority of power holders, while enhancing the powerless' power.

However, there are also considerable gaps in this literature. Research coming from the intergroup tradition does not provide a detailed account of the motivations that powerful and powerless individuals and groups experience under conditions of legitimacy and illegitimacy. Moreover, past research has largely examined attitudes and behavioural intentions, leaving aside how power holders and the powerless actually behave when securing or obtaining power in social settings. These attitudes and behavioural intentions are most often assessed when power structures have already been secured or changed, and research rarely assesses how powerful and powerless individuals prepare for, or are in the process of, protecting or changing the structure of social hierarchies. That is, research in this tradition has not attended to the more micro dynamics of power in interaction. Moreover, although more consistent in relation to the powerless, existing evidence for how power holders respond to illegitimate power has so far illustrated varied and somewhat inconsistent behavioural strategies (suggesting a greater propensity for inhibition, willingness to assert power, and willingness to engage in positive behaviour). Thus, there are unresolved questions of exactly how the powerful respond to illegitimacy. Finally, research has not yet systematically examined how the illegitimacy of power relations can simultaneously affect powerful and powerless individual's motivations and behaviour when accepting or resisting the status quo. The research reported in this thesis aims to address these gaps.

The Present Research

The research reported in this dissertation aims to demonstrate that the effects of social power on the motivation and behaviour of power holders and of the powerless are not invariant but, rather, can be modified by perceptions of the legitimacy of power relations. Contrary to the majority of past research that assesses how power holders and the powerless

respond to hierarchies that have been defined and established, here I intend to compare the motivational and the behavioural responses of the powerful with those of the powerless to (il)legitimate ongoing power relations that can, ultimately, be changed. Thus, my goal is to investigate the conditions, both intrapsychic and situational, that might help propel or prevent social change, and how these are manifested in individuals' behaviour when they prepare to approach or to avoid power change.

In the following chapter, Chapter 3, I present the results of two studies that examine the combined effects of power and perceptions of legitimacy on the motivational state of powerful and powerless individuals. Extending empirical evidence that suggests that social power elicits approach, and lack of power elicits avoidance (Keltner et al., 2003), I investigate whether perceptions of illegitimate (vs. legitimate) power reverse this power-approach/ powerlessness-avoidance relationship. In order to get a closer, and perhaps more direct, look at motivations I use measures whose association with these specific motivations has been well established by past research: They are often used to prime approach and avoidance but, here, I used them to assess these motivations as a function of power and perceived legitimacy. Due to these measures ability to assess approach and avoidance (instead of degrees of approach, for example), I believe I provide a more complete examination of the role of (il)legitimacy on the emergence of motivations of both actors of social change, the powerful and the powerless.

In Chapter 4, I present the results of two studies examining the effects of power and perceived legitimacy on the behaviour of powerful and powerless individuals. Specifically, this chapter demonstrates how illegitimate (vs. legitimate) power impels the powerless to behaviourally claim power and the powerful to behaviourally concede power. In addition, this chapter explores whether these behavioural patterns are at least partly driven by impression management goals that the powerful and the powerless might have when interacting with

each other under conditions of legitimate or illegitimate power. This chapter thus provides the first demonstration that the role of power in structuring power-related behaviour is dynamic and responsive to concerns about legitimacy and impression management.

In Chapter 5, I present the results of two studies that examine the interplay between conditions of legitimacy and individual differences in social dominance orientation on a specific behavioural intention—help offering. I intend to show that power structures can be maintained and reinforced not only by negative and injurious means (such as stereotyping or through domination-subordination relations), but also by strategic uses of positive and pro-social behaviour. In this chapter, I focus on the perspective of those who have the power to provide help (power holders) to the disadvantaged and examine their willingness and motivations to offer various forms of help. Moreover, in order to clarify the dynamics underlying intergroup helping, I compare the intent to help of power holders with the intent to help of external observers, who also have the power to provide help to the disadvantaged but are not bounded by the interests involved in power relations. This chapter demonstrates that situational factors (i.e., perceived legitimacy of power structures) and individual factors (i.e., social dominance orientation) combine to predict helping intentions of power holders (but not of observers) when changes in the structure of power are deemed possible.

In Chapter 6, I present a summary of the findings of the research reported in this thesis and discuss their contribution to the literature. I outline conclusions and address the limitations of this work, as well as its broader implications. In addition, I suggest potential directions for future research.

In reading the empirical chapters that follow, it is important to note that each of these was prepared with the intention of being submitted as an independent publication in peer-reviewed journals. Accordingly, these can be read as stand-alone pieces of work. Reflecting this, the introduction to each empirical chapter, and their respective discussions, might show

some overlap with each other and with the content of the introductory and concluding chapters of this thesis. Moreover, the research contemplated in each empirical chapter was conducted in collaboration with my supervisors. Thus, in these chapters, I will not be referring to "my" work but to "our" workout instead.

Chapter 3: Examining How Perceptions of Legitimacy Modify the Effects of Power on Approach and Avoidance Motivations

Social power—the ability to control outcomes that other people need or want—is a key feature of many social systems and interactions (Fiske, 1993; Fiske & Berdhal, 2007; Thibaut & Kelley, 1959). In addition to the instrumental use of power to promote and secure social hierarchies, possessing power is associated with enhanced psychological and physical outcomes. For example, in comparison to the state of powerlessness, having power has been found to improve cognitive performance, to render information-processing more abstract and flexible, to boost creativity, to increase the experience of positive emotions, and to promote efficient cardiovascular responses and motor performance (e.g., Berdahl & Martorana, 2006; Burgmer & Englich, 2013; Guinote 2007a, 2007b; Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Scheepers, de Wit, Ellemers, & Sassenberg, 2012).

Power has also been found to affect basic motivational processes (Keltner, Gruenfeld, & Anderson, 2003). Specifically, it has been proposed that the powerful tend to experience motivational states of approach, whereas the powerless more often experience avoidance, or inhibition (Carver & White, 1994; Keltner et al., 2003). The motivation to approach among powerful individuals is thought to stem from their lack of constraints and to be facilitated by their multiple resources, which render approaching goals and pursuing concomitant actions both easy and possible. Conversely, the tendency for powerless individuals to focus on avoiding negative experiences, be it in the form of punishment or as further loss of power, is thought to reflect their lack of resources and the fact that their behaviour is constrained by the power others have over them (Keltner et al., 2003; Maner, Gailliot, Butz, & Peruche, 2007). In these ways, prior research linking interpersonal power to motivation suggests a fairly linear relationship between power and approach versus powerlessness and avoidance.

Research in other domains, however, suggests that the relationship between power and motivation might be more dynamic than previously proposed. Social identity theory (SIT, Tajfel, 1978; Tajfel & Turner, 1979) posits that individuals' responses to hierarchical social systems depend on how these are perceived in terms of their permeability, legitimacy, and stability (see Ellemers, van Knippenberg, & Wilke, 1990; Ellemers, Wilke, & van Knippenberg, 1993). Crucially, whereas legitimate status differences often tend to be accepted by both high and low status group members, perceptions of illegitimacy signal a possibility of change. The possibility of change, in turn, has different implications for high- and low-status groups, leading also to different motivations and responses among members of these groups. Low-status group members often respond to illegitimacy by engaging in collective actions to improve the position of their group—reflective of an approach motivational state. By contrast, high-status group members often respond to the perceived illegitimacy of status relations by engaging in actions intended to protect the status quo, and avoid their loss of status—which reflects avoidance motivations. Although status and power are not interchangeable concepts (power refers to control over others whereas status refers to the value placed on ones' social position), since status often determines power, and vice-versa, power and status are inextricably linked (Boldry & Gaertner, 2006; French & Raven, 1959; Keltner et al., 2003; Kemper, 1991) to the extent that some theoretical approaches do not see a need to distinguish between the two (Fiske, Cuddy, Glick, & Xu, 2002). It therefore seems that, at least in the context of intergroup relations, the perception of an illegitimate social structure—and its implied susceptibility to change—might reverse individuals' motivational states relative to when the structure is perceived to be legitimate.

Past research on the effects of (il)legitimate power has mainly focused on intergroup relations (e.g., Ellemers et al., 1990, 1993; Hornsey, Spears, Cremers, & Hogg, 2003; Turner & Brown, 1978). However, in the research reported here, we focus on interpersonal power

differentials, such as those characterized by Keltner et al. (2003). Applying principles of (il)legitimate intergroup differences to interpersonal contexts might not be immediately clear because the way individuals perceive and respond to other people is dependent on whether they see them as members of a group or as independent individuals (Abelson, Dasgupta, Park, & Banaji, 1998; Dépret & Fiske, 1999). Still, given that work on interpersonal relations often examines linear relationships between power and approach/powerlessness and avoidance, and that research on intergroup relations does not typically look at these specific motivations, we believe that it is crucial to investigate the role that legitimacy plays in both intergroup and interpersonal contexts.

Evidence that the perceived legitimacy of power also affects interpersonal power relations comes from research by Lammers, Galinsky, Gordijn, and Otten (2008). Partially consistent with our reasoning that illegitimate power structures might reverse individuals' motivational states in relation to legitimate ones, Lammers et al., (2008) found that the illegitimacy of power differentials moderated the effects of power on approach tendencies. In line with past research, when power was legitimate, powerful individuals showed a greater propensity to negotiate and take risks than powerless individuals, behaviours that have both been linked to approach tendencies (Anderson, & Galinsky, 2006; Lammers et al., 2008; Galinsky, Gruenfeld, & Magee, 2003). However, when power was perceived to be illegitimate, this effect of power on approach-relevant behaviours was not observed.

The findings of Lammers et al. (2008) advance knowledge by demonstrating a boundary to the power-approach link. Yet, they are not entirely consistent with the above reasoning derived from social identity theory. Specifically, although Lammers et al. (2008) demonstrated that legitimacy affects power-motivation links, such that these links are only present when power is legitimate, they did not observe a full reversal of the typical pattern when power was illegitimate. Closer examination of the procedure followed by Lammers et

al. (2008) suggests a reason why. Their paradigms relied on priming power (e.g., through exposure to power-related words) or asking participants to recall past experiences of power. Neither of these power inductions gives the experience of power a meaningful future, or one that is influenced by ongoing individual actions. Fully testing the logic derived from social identity theory, however, requires that power is set within ongoing relationships between individuals and groups—relationships that can be hoped or feared to change when they are perceived as illegitimate. Although Lammers et al. did employ such a paradigm in the final study of their paper, the measure used to assess motivational state in this study was only sensitive to variation in *degrees of approach* motivation (as intended by the authors). Their dependent measures did not allow for the possibility of simultaneously capturing meaningful variation in *avoidance* states.

Our goal in the present research was to examine the link between power and approach/ avoidance motivational states in a more complete way. That is, we sought to investigate the motivational consequences of power in a context that allows for both the possibility of change and the capacity to express approach and avoidance. To do so, we placed participants in power relations that could be envisaged to have a future and we assessed motivational states with a measure that captures the relative predominance of approach and avoidance. Experiment 1 tested the basic hypothesis that power is associated with approach, and powerlessness with avoidance, only when power is legitimate; and that this pattern is reversed when power is illegitimate. Experiment 2 attempted to replicate this effect and to extend our analysis by also considering power-relevant behaviour and self-views.

Experiment 1

Method

Design and Participants. The study followed a 2 (Social Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants design. A total of 83 participants were randomly allocated to conditions (65 females, 18 males), ranging in age from 17 to 51 years (M = 21.89, SD = 5.40). Most participants were students at the University of Exeter (97.6%, n = 81), and two participants were members of staff at the same university. The majority of participants identified as British (72.3%, n = 60) and the rest had been living in the UK for at least two years. All participants had sufficient knowledge of English. The study took place in the laboratory in individual sessions, and took around 25 minutes to complete. Participants were paid £5 (approximately 7.77 US Dollars) for their participation.

Procedure. After arriving at the laboratory, participants were directed to an individual cubicle where they read and signed an informed consent form. The experimenter then informed the participant that the study had several parts, the first of which consisted of individual tasks in the cubicle, and the last of which consisted of a task with other participants allegedly present in the laboratory at that moment. The experimenter explained that one of the participants would take the role of leader and the others would take the role of workers. To decide which participant would do each task, participants filled in a (bogus) Leadership Skills Stratified Test (LSST). This test had allegedly been developed by the human resources of a company called General Electrics to assess the leadership skills of their employees. In the legitimacy condition, participants were told that the questionnaire had been repeatedly used and had proved to be a very accurate measure of leadership skills. In the illegitimate condition, participants were told that the questionnaire had been repeatedly used but it did not seem to work very well—it did not seem to be a very accurate measure of

leadership skills. This manipulation was based on manipulations of power and legitimacy used in previous work (Rodríguez-Bailón, Moya, & Yzerbyt, 2000).

After participants completed the leadership questionnaire, the experimenter left the room allegedly to collect the other participant's questionnaire and to score the answers. After 3 to 4 minutes, the experimenter returned to the cubicle and informed participants that, based on the scores on the leadership questionnaire, they were either selected to be the leader of the team and to guide the other participants during the group task (high-power) or that another participant had been selected to be the leader and would guide the others during the group task (low power). Next, participants responded to the dependent measures in the order described below.

At the end of the experiment, participants were thanked and debriefed. Suspicion was also probed during debriefing.

Measures[1]

Suspicion and Manipulation checks. There was no evidence of suspicion during the debriefing. Thus, no participant was excluded from the sample.

The manipulation of power was checked by asking participants whether they had been assigned to the position of leader (*Yes*/ *No*).

The manipulation of legitimacy of power was assessed with four items tapping whether participants: thought their assignment to the position in the group task had been fair (1 = *Totally unfair*, 7 = *Totally fair*); thought the test they completed was a good test of leadership skills; would recommend the leadership test; and believed the test accurately

[1] This study also included a modified Stroop task to examine the salience of the concept of change across conditions. Results revealed that high-power participants were slower (M = 498.115, SD = 162.34) to identify the colour of the neutral words than participants in the low-power conditions (M = 431.114, SD = 94.01), F (1, 79) = 6.58, p = .01. High-power participants (M = 525.091, SD = 224.09) also took longer to identify the colour of the change-related words than did those in the low-power condition (M = 434.598, SD = 75.27), F (1, 79) = 6.28, p = .01.This measure is unrelated to the core goals of this study and, thus, not reported in here.

measured their leadership skills (1 = *Strongly disagree*, 7 = *Strongly agree*). These items formed a reliable scale (α = .81) and were averaged for analyses.

Motivational state. To measure motivational state in two ways we asked participants to choose between tasks that allowed them to either approach a positive end state or avoid a negative end state. Research on regulatory fit has provided ample evidence that people are motivated to match their goal orientation with the means used to approach their goal (Avnet & Higgins, 2003; Higgins, 2005). Based on this principle, the task chosen by a participant can be assumed to reflect their motivational state.

Reflecting this logic, we assessed motivational state in two ways. First, we asked participants to what extent they would like to, later on in the study, write a 15 line text about their duties and obligations and a text about their ideals and aspirations (from 1 = *I wouldn't like to write about this at all*, to 7 = *I would very much like to write about this*). Second, participants were asked to select and solve one of two mazes (see Appendix A for a representation of the mazes) allegedly to stay focused while the experimenter had to leave the room. The mazes were used in past research (e.g., Förster, Friedman, Özelsel, & Denzler, 2006; Friedman & Förster, 2001), one of which has been shown to induce approach (solving the maze helps a mouse approach a cheese) and the other to induce avoidance (solving the maze helps a mouse to escape an eagle). The two mazes were presented to the participants at the same time and they were asked to choose one to complete. Instead of using these mazes to induce a particular motivational state, as has been done in past research, in this study we used maze choice (dichotomous) as an indicator of current motivational state.

Ancillary measures. The following measure was also included in the questionnaire to provide additional insights into the effects of power and legitimacy of power and to examine their potential links to motivations.

Emotions. Anger and anxiety-related emotions were also assessed, given that these have also been linked to approach and avoidance states (Carver & White, 1994; Lerner & Keltner, 2001). Specifically, participants were asked about the extent to which they felt content, calm, confident, anxious, tense, irritated, indignant, and annoyed (from 1 = *Strongly disagree*, to 7 = *Strongly agree*). An exploratory factor analysis (maximum likelihood) with varimax rotation extracted two factors that explained 70.92% of the total variance [*KMO* = .81; *Bartlett's Test of Sphericity*, χ^2 (28) = 327.59, $p < .001$; *MSA* value = .82], (see Appendix B for item loadings on each factor). We thus formed two indexes of emotions to indicate anger [annoyed, irritated, indignant, content (reverse coded), $\alpha = .85$], and anxiety [anxious, tense, calm (reverse coded), and confident (reverse coded), $\alpha = .85$].

Results and Discussion

Unless otherwise specified, analyses were conducted using 2 (high vs. low power) X 2 (legitimate vs. illegitimate power) between-participants ANOVAs.

Manipulation Checks. All participants provided correct responses to the manipulation check of power. The manipulation check of perceived legitimacy was also in line with intentions: participants indicated that their position was fairer when power was legitimate ($M = 4.43$, $SD = 1.01$) than when power was illegitimate ($M = 3.46$, $SD = .99$), F (1, 79) = 18.92, $p < .001$, $\eta^2 = .188$. The main effect of power, F (1, 79) = 2.58, $p = .112$, $\eta^2 = .026$, and the interaction, F (1, 79) = .28, $p = .600$, $\eta^2 = .003$, were not reliable for this measure.

Motivational States

Topic preference. The extent to which participants were willing to write about their duties ($M = 3.39$, $SD = 1.51$), or about their aspirations ($M = 4.76$, $SD = 1.65$), was unaffected by the manipulations, all Fs (1, 79) < 1.42, $p > .238$, $\eta^2 < .017$.

Maze preference. The extent to which participants selected the approach versus the avoidance maze was analysed with binomial logistic regression with power, legitimacy, and the power by legitimacy interaction term as predictor variables. We found a significant interaction between power and legitimacy predicting the likelihood of selecting the avoidance (versus approach) maze: *Exp*(B) = .04, *Wald*(1) = 10.92, *p* = .001 (see Table 3.1). The main effects of power, *Exp*(B) = 1.28, *Wald*(1) = .31, *p* = .579, and of legitimacy, *Exp*(B) = 1.17, *Wald*(1) = .13, *p* = .719, were not significant. Simple effects were analysed with the MODPROBE macro (Hayes & Matthes, 2009). This revealed reliable simple effects of legitimacy in the high-power condition, *b* = 1.39, *SE* = .66, *Z* = 2.10, *p* = .036, and in the low-power condition, *b* = -1.76, *SE* = .69, *Z* = - 2.57, *p* = .010. Powerful participants were more likely to choose the avoidance maze when their position was illegitimate than when their position was legitimate. In contrast, powerless participants were less likely to choose the avoidance maze when their position was illegitimate than when their position was legitimate. We also found reliable simple effects of power in the legitimate, *b* = 1.32, *SE* = .66, *Z* = 1.99, *p* = .047, and illegitimate conditions, *b* = -1.83, *SE* = .68, *Z* = -2.67, *p* = .008. In the legitimate condition, powerful participants were more likely to choose the approach maze than powerless participants. Conversely, in the illegitimate condition powerless participants were more likely to choose the approach maze than powerful participants.

Table 3.1

Frequency of Maze Selection per Experimental Condition

	High Power Legitimate	High Power Illegitimate	Low Power Legitimate	Low Power Illegitimate
Approach Maze	12	6	6	14
Avoidance Maze	8	16	15	6

Ancillary measures.

Anger. The ANOVA revealed a reliable main effect of legitimacy, F (1, 79) = 5.16, p = .026, η^2 = .058, which was qualified by a reliable interaction between power and legitimacy, F (1, 79) = 5.16, p = .026, η^2 = .058. The main effects of power was not significant, F (1, 79) = .17, p = .679, η^2 = .002. Low-power participants reported more anger when power was illegitimate (M = 2.60, SD = 1.25) than when it was legitimate (M = 1.54, SD = .79), F (1, 81) = 10.49, p = .002, η^2_p = .115. In addition, there was a tendency for low-power participants to report less anger than high-power participants when power was legitimate (M = 1.54, SD = .79; M = 2.17, SD = .98, respectively), F (1, 81) = 3.51, p = .065, η^2_p = .042, but not when power was illegitimate (M = 2.60, SD = 1.25; M = 2.17, SD = 1.17, respectively), F (1, 81) = 1.43, p = .236, η^2_p = .017. No other effects were reliable, Fs (1, 79) < 1.5, ps>.24, η^2_p < .001.

Anxiety. High-power participants reported more anxiety (M = 3.68, SD = 1.12) than low-power participant (M = 2.52, SD = .86), F (1, 79) = 28.14, p < .001, η^2 = .261. No other effects were reliable, all Fs (1, 79) < 1.

Additionally, apart from the expected positive association between anger and anxiety (r = .32, p = .003), the dependent measures assessed in this study were not significantly related (see Table. 3.2)

Table 3.2

Correlations Between Anger, Anxiety, Preference to Write About Duties, Preference to Write About Aspirations, and Maze Selection in Experiment 1.

	1	2	3	4	5
1. Anger	-				
2. Anxiety	.32*	-			
3. Write About Duties	-.03	-.11	-		
4. Write About Aspirations	-.16	-.17	.17	-	
5. Maze Selection	-.04	.10	.09	-.09	-

* p = .003

In sum, this study revealed that illegitimacy of power can reverse the power-approach relationship, at least with respect to the maze-choice measure (which is often used to manipulate approach/ avoidance goals: Förster et al., 2006; Friedman & Förster, 2001), but not the topic preference task (which was adapted from regulatory focus literature, Higgins, 2005). It is possible that the lack of significant effects on the latter measure was due to the fact that the choice of topic involved additional considerations, such as a desire not to disclose too much about oneself, whereas the maze choice appears more purely reflective of motivational state alone.

The pattern of self-reported emotion was also somewhat consistent with the hypothesis. In line with expectations, low power led to more anger (an approach related

emotion) when power was illegitimate compared to when low power was legitimate. Surprisingly, however, participants with illegitimately low power did not also report more anger than high-power participants under the same conditions. The emotional consequences of power and legitimacy were also not revealed on self-reported anxiety. Similar to our speculation about the different patterns across the task preference measures, it is likely that these emotion measures captured more than pure motivational states and reflected other considerations within our experimental paradigm. For example, low power was fairly inconsequential in this setting (i.e., power did not come with other rewards) and high power was associated with additional burdens such as public speaking and leading a group of one's peers. Indeed, informal feedback after the experiment suggested that many found the high-power position to be aversive for these reasons, something that explains the pattern of effect on anxiety. Thus, although the results of this first study are clearly promising, they require replication and elaboration.

Experiment 2

Experiment 2 aimed to replicate and extend the core findings of Experiment 1. As such, this study followed the same experimental design, with a few procedural changes. First, we sought to offer a conceptual replication the results of Experiment 1 with a slightly different manipulation of legitimacy of power. Second, we sought to make the power position more attractive both by removing the expectation (and additional pressure) of face-to-face interaction and by introducing an additional £3 reward for participants in high-power positions.

To assess motivational state we used the same maze measure used in Experiment 1. In addition, we sought to extend our knowledge of how perceived legitimacy modifies the effects of social power by examining effects on other forms of behaviour and on self-views. With respect to behaviour, we examined whether illegitimacy also modifies the individual's

sense of entitlement (i.e., that they deserve more than others). Past research suggests links between power and behavioural entitlement (Piff, 2014). Because illegitimacy raises concerns regarding the deservingness of power positions, we predicted that those who are illegitimately powerful will act with less entitlement, and conversely that those who are illegitimately powerless will act with more entitlement, than they do when power relations are legitimate.

Finally, we also explored responses to power and legitimacy in the form of self-descriptions. Past research suggests that power (and status) tends to be associated with self and other descriptions in terms of competence, whereas reduced power (and status) tends to be associated with compensatory perceptions of warmth (Fiske, Cuddy, Glick, & Xu, 2002; Yzerbyt, Kervyn, & Judd, 2008). In turn, warmth encompasses sociability and morality (Leach, Ellemers, & Barreto, 2007), the latter being a particularly central dimension with regard to encounters across power and status divides (e.g., Bergsieker, Shelton, & Richeson, 2010). Along these lines, we considered the possibility that patterns of self-description in terms of competence and warmth (sociability and morality) might also vary as a function of power and legitimacy, and that this might provide some clues as to what participants were motivated to approach or avoid under these circumstances. For example, the avoidance motivation of high-power participants in response to illegitimacy could be associated with either the desire to avoid or concede power (and therefore reflected in self-descriptions of low competence) or to the desire to avoid implications of illegitimacy (and therefore reflected in self-descriptions of morality, but perhaps also sociability). Conversely, approach (versus avoidance) motivations of low-power participants could reflect the desire to attain future power and be reflected in self-competence, or it could be associated with an attempt to compensate for current lower power, which could be reflected in increased warmth ratings (sociability and morality). Given these various possibilities, we assessed self-descriptions

of competence, sociability and morality, but did not make specific predictions about the effects that might be observed on these measures.

Method

Design and Participants. A total of 107 students from the University of Exeter (87 females and 20 males, M_{age} = 19.68, *SD* = 1.92) were tested individually and randomly allocated to a 2 (Social Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants experimental design. Participants chose between course credits or £3 (approximately 4.80 US Dollars) payment for their participation.

Procedure. The procedure followed in this study was the same as in Experiment 1with the following exceptions. Participants were informed that, for the purposes of the study, they could not engage in direct interaction with the other participant while working on the communication task, but could communicate via messages placed inside envelopes and delivered by the experimenter.

Participants read that one of the participants would be selected to be the Director of the communication task, and the other would be the Worker. Directors would have power over the Workers in that the Directors could assign tasks to the Workers and evaluate their performance, whereas the Workers' role would be to perform the tasks chosen by the Directors. Participants learned that the Director would be paid £3 extra.

To allocate participants to each role, participants completed a (bogus) test of leadership skills. This test was divided into different subtests that allegedly measured distinct abilities, which, combined, indicated how one person might perform as a leader. Therefore, to determine who would be most suitable for the leadership role, what mattered was participants’ balanced performance across all the subtests. Participants were informed this test had been repeatedly used and that it had been proven to be a very accurate measure of leadership skills. Participants in the *legitimate* condition read that the leadership test was

divided into 3 different subtests and received 3 booklets from the experimenter. Participants in the *illegitimate* condition read that the leadership test was divided into 5 different subtests but received only 3 booklets from the experimenter, who told participants he would get the remaining 2 subtests from another room. After 3 minutes the experimenter was back in the room and announced that the other two subtests, booklets 4 and 5, were missing. The experimenter then asked participants to complete only those 3 subtests to enable the experiment to continue. That is, although all participants filled in 3 subtests of the leadership test, this was described as the complete test in the legitimate condition, but was presented as only partly diagnostic of leadership in the illegitimate condition.

On completion of the leadership subtests, the experimenter collected the booklets from participants allegedly to score their answers. After four minutes, the experimenter communicated to participants that they would be Directors (*high power*) or Workers (*low power*) based on the scores of the leadership subtests (in reality assignment to role was random). Participants then responded to the dependent measures in the order described below.

At the end of the study, participants were thanked, debriefed, and all participants were paid the additional £3.

Measures[2]

Motivational state. Right after the manipulations, participants were presented with the same two mazes used in Experiment 1 and asked to choose one to solve at a later stage in the study (i.e., they did not complete the maze at this point and prior to any dependent measure).

Suspicion and Manipulation checks. There was no evidence of suspicion during the debriefing. Thus, no participant was excluded from the sample.

[2] In addition to the measures described here, a Stroop task was used with the aim of assessing working memory capacity (potentially affected by increased concerns with change in the illegitimate conditions) but a technical error in the programming of this task rendered these data meaningless.

The manipulation of power was checked by asking participants which position they had been assigned to (*Director*/ *Worker*) and whom they thought would have more power in the communication task (1 = *Director*, 9 = *Worker*).

Perceived legitimacy of power was checked by asking the extent to which participants thought their assignment to the position in the communication task had been fair (1 = *Completely unfair*, 9 = *Completely fair*) and legitimate (1 = *Completely illegitimate*, 9 = *Completely legitimate*). These formed a reliable scale (r = .77, p = .001) and were averaged for analyses.

Self-Views. Participants were asked to complete a questionnaire about their self-views, presented as a questionnaire the researchers were trying to develop for a purpose unrelated to the main study. Participants indicated to what extent they saw themselves as competent (capable, competent, skilled, bright, α = .88), moral (sincere, honest, trustworthy, α = .81), and sociable (sociable, warm, friendly, α = .87), all responses from 1 = *Strongly Disagree*, 9 = *Strongly Agree*).

Entitlement. To measure entitlement we adapted a behavioural measure used by Campbell, Bonacci, Shelton, Exline, and Bushman (2004). At the end of the study, we placed a jar with candy (precisely 200 M&Ms) on the desk in front of the participants and informed them they could take as many as they wanted because the candy was not needed at present (it was used for experiments with children, but these were not taking place at the moment). We later counted how many candy each participant had taken.

Results and Discussion

Unless otherwise indicated, all analyses were conducted with 2 (High power vs. Low power) X 2 (Legitimate power vs. Illegitimate power) between-participants ANOVAs.

Manipulation Checks. All participants correctly identified the role they were assigned to (*Director*/ *Worker*). On the item enquiring who would have more power in the

task (1=Director to 9=Worker), as intended all participants acknowledged that the Director would have more power than the Worker, (M = 2.14, SD = .99; comparing to the mid-point of the scale (5): t (105) = -29.73, p < .001). This was not modified by participant's own power position or the manipulation of legitimacy (power: F (1, 102) = 1.66, p = .200, η^2 = 0.016; legitimacy F (1, 102) < 1, η^2 < .001, and interaction, F (1, 102) < 1, η^2 = .008).

The manipulation check of legitimacy revealed that this manipulation was also successful. Participants perceived their position to be fairer in the legitimate (M = 6.31, SD = 1.55) than in the illegitimate conditions (M = 5.44, SD = 1.86), F (1, 102) = 6.87, p = .010, η^2 = .062. The main effect of power, F (1, 102) = .57, p = .452, η^2 = .005, and the interaction, F (1, 102) = .96, p = .331, η^2 = .008, were non-significant.

Motivational State. We conducted the same analyses used in Experiment 1. A binomial logistic regression revealed that the main effect of legitimacy was not significant, *Exp*(B) = 1.17, *Wald*(1) = .16, p = .693, and that the main effect of power was marginally significant, *Exp*(B) = .50, *Wald*(1) = 3.03, p = .082. Importantly, and consistent with Experiment 1, these effects were qualified by a significant interaction between power and legitimacy of power on maze choice, *Exp*(B) = .09, *Wald*(1) = 8.29, p = .004, (see Table 3.3, bottom panel). Analyses of simple effects revealed a reliable effect of legitimacy in the low-power condition, b = -1.36, SE = .59, Z = -2.30, p = .023, and a marginal effect of legitimacy in the high-power condition, b = 1.02, SE = .58, Z = 1.77, p = .077. Powerless participants were more likely to select the approach maze when their position was illegitimate than when it was legitimate. Powerful participants tended to choose the approach maze more often when their position was legitimate rather than illegitimate. Also, when the power allocation was legitimate, powerful participants chose the approach maze more often than did low power participants, b = 1.92, SE = .61, Z = 3.15, p = .002. When the assignment to power positions

was illegitimate this difference reversed, but it was not significant, b = -.46, SE = .56, Z = -.83, p = .406.

Table 3.3

Frequency of Maze Selection per Experimental Condition in Experiment 1 and Experiment 2

		High Power Legitimate	High Power Illegitimate	Low Power Legitimate	Low Power Illegitimate
Experiment 1	Approach	12	6	6	14
	Avoidance	8	16	15	6
Experiment 2	Approach	19	12	7	15
	Avoidance	8	14	20	11

Self-Views

Morality. An ANOVA revealed a reliable interaction between power and legitimacy, F (1, 102) = 5.45, p = .022, η^2 = .050 (see Table 3.4)**.** The effects of power, F (1, 102) = 1.28, p = .261, η^2 = .012, and of legitimacy, F (1, 102) = 1.01, p = .318, η^2 = .009, were not significant. Simple effects revealed that low- and high-power participants described themselves as equally moral (respectively, M = 7.74, SD = .91; M = 7.47, SD = 1.32) when power was legitimate, F (1, 104) = .70, p = .403, η^2_p = .007. However, when power was illegitimate, high-power participants described themselves as more moral (M = 7.77, SD = .74) than low-power participants (M = 6.99, SD = 1.52), F (1, 104) = 5.90, p = .017, η^2_p = .054. In addition, high-power participants described themselves as equally moral irrespective of legitimacy, F (1, 104) = .82, p = .368, η^2_p = .008, whereas low-power participants

described themselves as more moral when power was legitimate (M = 7.74, SD = .91) than when it was illegitimate (M = 6.99, SD = 1.52), F (1, 104) = 5.49, p = .021, η^2_p = .050.

Sociability. The ANOVA revealed a significant interaction between power and legitimacy of power, F (1, 102) = 6.72, p = .011, η^2 = .061 (see Table 3.4). The main effects of power, F (1, 102) = .54, p = .465, η^2 = .005, and of legitimacy, F (1, 102) = .53, p = .468, η^2 = .005, were non-significant. Simple effects revealed that low- and high-power participants described themselves as equally sociable (respectively, M = 7.69, SD = .90; M = 7.25, SD = 1.33) when power was legitimate, F (1, 104) = 1.70, p = .196, η^2_p = .016. However, when power was illegitimate, high-power participants described themselves as more sociable (M = 7.69, SD = .86) than low-power participants (M = 6.90, SD = 1.66), F (1, 104) = 5.41, p = .022, η^2_p = .049. In addition, high-power participants described themselves as equally sociable irrespective of legitimacy, F (1, 104) = 1.65, p = .202, η^2_p = .016, whereas low-power participants described themselves as more sociable when power was legitimate (M = 7.69, SD = .90) than when it was illegitimate (M = 6.90, SD = 1.66), F (1, 104) = 5.46, p = .021, η^2_p = .050.

Competence. The ANOVA revealed only a reliable interaction between power and legitimacy, F (1, 102) = 6.03, p = .016, η^2 = .055 (see Table 3.4). The main effects of power, F (1, 102) = .67, p = .416, η^2 = .006, and of legitimacy, F (1, 102) = .10, p = .749, η^2 = .001, were non-significant. Simple effects revealed that low- and high-power participants described themselves as equally competent (respectively, M = 7.09, SD = .67; M = 6.73, SD = 1.25) when power was legitimate, F (1, 104) = 1.33, p = .252, η^2_p = .013. However, when power was illegitimate, high-power participants described themselves as more competent (M = 7.20, SD = .67) than low-power participants (M = 6.48, SD = 1.45), F (1, 104) = 5.28, p = .024, η^2_p = .048. In addition, high-power participants described themselves as equally competent irrespective of legitimacy, F (1, 104) = 2.19, p = .142, η^2_p = .021, whereas low-power

participants marginally described themselves as more competent when power was legitimate (*M* = 7.09, *SD* = .67) than when it was illegitimate (*M* = 6.48, *SD* = 1.45), *F* (1, 104) = 3.78, *p* = .055, η^2_p = .035.

As expected, morality, sociability, and competence were positively correlated but were not associated neither with maze selection nor with entitlement (see Table 3.5).

Entitlement

The ANOVA on amount of candy taken revealed a significant interaction between power and legitimacy, *F* (1, 102) = 8.31, *p* = .005, η^2 =.075 (see Table 3.4). The effects of power, *F* (1, 102) = .05, *p* = .825, η^2 < .001, and of legitimacy, *F* (1, 102) = .01, *p* = .909, η^2 = .001 were not reliable. Simple effects revealed that high-power participants took more candy (*M* = 8.04, *SD* = 12.06) than low-power participants (*M* = 2.74, *SD* = 5.16) when power was legitimate, *F* (1, 104) = 4.84, *p* = .030, η^2_p = .044. However, when power was illegitimate, this pattern reversed and low-power participants took marginally more candy (*M* = 7.46, *SD* = 10.48) than high-power participants (*M* = 2.92, *SD* = 5.09) when power was illegitimate, *F* (1, 104) = 3.38, *p* = .069, η^2_p = .031. Said differently, high-power participants took more candy when power was legitimate (*M* = 8.04, *SD* = 12.06) than when power was illegitimate (*M* = 2.92, *SD* = 5.09), *F* (1, 104) = 4.43, *p* = .038, η^2_p = .041, whereas low-power participants took marginally more candy when power was illegitimate (*M* = 7.46, *SD* = 10.48) than when it was legitimate (*M* = 2.74, *SD* = 5.16), *F* (1, 104) = 3.75, *p* = .056, η^2_p = .035. These patterns suggest increased entitlement when high power is legitimate (or low power is illegitimate), and reduced entitlement when high power becomes illegitimate (or low power is legitimate).[3]

[3] Given that the standard deviations appeared unequal across conditions, non-parametric tests were conducted to examine simple effects of power and legitimacy on entitlement. These tests analyse medians rather than means, and do not assume that data follows a specific distribution. Thus, non-parametric tests are not affected by extreme values and are a robust solution when analysing skewed data (such as the behavioural data reported here). The observed patterns did not differ from those found when using the parametric tests reported in the main text (all *U*s < 236.50, *p*s < .05).

Additionally, entitlement was found to be negatively associated with maze selection, $r = -.24$, $p = .013$ (see Table 3.5). The analyses reported above show that the effects of the power X legitimacy interaction were significant on entitlement and on maze choice. Although we did not make specific predictions, we sought to explore whether participants' maze choice (motivation to approach or to avoid) mediated the effects of power and legitimacy on entitlement. Given that the mediator in this analysis is dichotomous, we adapted the linear regression mediation procedures as described by Baron and Kenny (1986). Dichotomous mediators require both linear and logistic regressions to test for mediation and, thus, the regression coefficients need to be adjusted across regression equations (see MacKinnon & Dwyer, 1993). Following Kenny (2013) and Herr (n.d.) recommendations, we confirmed that a) the power X legitimacy effect on entitlement was significant, $b = 2.46$, $SE = .85$, $t\ (104) = 2.91$, $p = .004$, b) the power X legitimacy effect on maze choice was significant, $b = -.58$, $SE = .20$, $Wald(1) = 8.26$, $p = .004$, c) the effect of maze choice on entitlement was marginally significant, $b = -3.18$, $SE = 1.74$, $t\ (103) = -1.83$, $p = .071$, and that d) the power X legitimacy effect on entitlement when controlling for maze choice, although weaker, was still significant, $b = 2.01$, $SE = .87$, $t\ (103) = 2.31$, $p = .023$. Importantly, the power X legitimacy effect on entitlement when it was the only predictor considered was not significantly different from the power X legitimacy effect on entitlement when controlling for maze choice, Sobel $z = 1.54$, $p = .124$. Thus, no significant mediation via maze choice was found.

Table 3.4

Means and Standard Deviations for Morality, Sociability, Competence, and Entitlement (Number of Candy Taken), as a Function of Power and Legitimacy

	High Power				Low Power			
	Legitimate		Illegitimate		Legitimate		Illegitimate	
	M	(*SD*)	*M*	(*SD*)	*M*	(*SD*)	*M*	(*SD*)
Morality	7.47a	(1.32)	7.77a	(.74)	7.74a	(.91)	6.99b	(1.52)
Sociability	7.25a	(1.33)	7.69a	(.86)	7.69a	(.90)	6.90b	(1.66)
Competence	6.73a	(1.25)	7.20a	(.67)	7.09a	(.67)	6.48b	(1.45)
Entitlement	8.04a	(12.06)	2.92b	(5.09)	2.74b	(5.16)	7.46a	(10.48)

Note. Self-descriptions were measured on 9 point Likert-type scales. Entitlement was measured on a scale from 0 (no candy taken) to 200 (all candy taken).

Table 3.5

Correlations Between Morality, Sociability, Competence, Maze Selection, and Entitlement in Experiment 2

	1	2	3	4	5
1. Morality	-				
2. Sociability	.67**	-			
3. Competence	.59**	.67**	-		
4. Maze Selection	.05	.05	.15	-	
5. Entitlement	-.07	-.06	-.24*	-.01	-

**$p < .001$, * $p = .013$

Overall, the findings of Experiment 2 again demonstrate that illegitimate power can reverse the power-approach (and powerlessness-avoidance) relationship. Although the overall pattern found for maze choice was consistent across the two experiments, in Experiment 2 the differences between powerful and powerless participants' maze selection when their power was illegitimate were not significant (which was not the case in Experiment 1). Given this inconsistency, we established the overall effect of power and legitimacy on approach and avoidance motivations by collapsing the samples of the two experiments (N = 189) and by conducting a binomial logistic regression with power (high vs. low), legitimacy (legitimate vs. illegitimate), and experiment (1 vs. 2), and all interaction terms between these variables, as predictors of maze choice (see Table 3.6 for the frequency of maze selection when the two samples are collapsed). The analysis revealed that the main and interactive effects of Experiment were not significant, indicating that the predicted power X legitimacy interaction on maze choice is not moderated by the specific experiment [main effect of experiment: *Exp*(B) = .84, *Wald*(1) = .35, p = .555; experiment X power: *Exp*(B) = 2.69, *Wald*(1) = 2.48, p = .115; experiment X legitimacy: *Exp*(B) = 1.01, *Wald*(1) < .001, p = .993; experiment X power X legitimacy: *Exp*(B) = 2.16, *Wald*(1) = .37, p = .541].

This analysis also revealed that the main effects of power, *Exp*(B) = 1.32, *Wald*(1) = .89, p = .345, and of legitimacy, *Exp*(B) = .86, *Wald*(1) = .25, p = .615, were not significant. However, a significant interaction between power and legitimacy of power on maze choice was found, *Exp*(B) = .07, *Wald*(1) = 18.94, p < .001. Analyses of simple effects revealed significant effects of legitimacy in the high-power condition, b = 1.17, SE = .43, Z = 2.74, p = .006, and in the low power condition, b = -1.52, SE = .45, Z = -3.42, p < .001, but in opposite directions. Powerful participants were more likely to select the approach maze when their position was legitimate than when it was illegitimate. Powerless participants were more likely to select the approach maze when their position was illegitimate than when it was legitimate.

Also, when the power allocation was legitimate, powerful participants were more likely to choose the approach maze than powerless participants, $b = 1.65$, $SE = .45$, $Z = 3.69$, $p < .001$. When the assignment to power positions was illegitimate this difference reversed and remained significant, $b = -1.05$, $SE = .43$, $Z = -2.45$, $p = .014$.

Experiment 2 further advanced the findings of Experiment 1 by showing that illegitimate power affects behavioural entitlement, which can be reflective of uncertainty regarding the deservingness of power positions. Although there were also distinct effects of power and legitimacy on self-views (morality, sociability, competence), the pattern found on these measures was not consistent with the observed patterns of maze choice and behaviour.

Table 3.6

Frequency of Maze Selection per Experimental Condition When Samples of Experiment 1 and of Experiment 2 are Collapsed

	High Power Legitimate	High Power Illegitimate	Low Power Legitimate	Low Power Illegitimate
Approach	31	18	13	29
Avoidance	16	30	35	17

General Discussion

The results of this research illustrate that individual motivation is shaped by both the experience of power and the perceived legitimacy of power positions. Consistent with our hypotheses, the results of two experiments revealed significant interactions between power and legitimacy on an indicator of individual motivational states (approach versus avoidance) and relevant behaviour (i.e., entitlement).

In line with previous research (e.g., Keltner et al., 2003; Lammers et al., 2008), results revealed that when power was legitimate, power holders displayed approach motivation whereas the powerless displayed avoidance. Also in line with past research, we showed that this general pattern is modified when power is perceived to be illegitimate. However, in contrast to past findings that suggested that illegitimate power merely reduces approach motivation among the powerful (e.g., Lammers et al., 2008), our findings demonstrated that illegitimate power differentials consistently reversed the power-approach relationship: leading power holders to display an avoidance motivational state and the powerless to display an approach motivational state.

With respect to motivational states, across two experiments we showed that participants were more prone to select approach- or avoidance-related tasks (maze selection) as a function of how legitimate or how illegitimate they perceived their power position to be. As suggested by previous research, if power was indeed purely associated with approach motivation, participants would be expected to select the approach-related maze in both conditions of legitimacy and of illegitimacy. However, our findings revealed that the illegitimately (vs. legitimately) powerful selected the avoidance maze more whereas the illegitimately (vs. legitimately) powerless selected the approach maze more. Our research thus advances prior knowledge by showing that illegitimate power differentials are not only able to neutralize the link between power and approach but also, and importantly, to reverse the power-approach relationship.

Experiment 1 also included an examination of emotions suggestive of approach (anger) and avoidance (anxiety) tendencies. In line with research on intergroup emotions (e.g., Giner-Sorolla & Maitner, 2013; Lerner & Keltner, 2001; Plant, Butz, & Tartakovsky, 2008), our results showed that approach-like emotions (i.e., anger) are not exclusively felt only by those in a position of power. Instead, the powerless can, and often do, experience

anger, especially when their position is appraised a being illegitimate (Martorana, Galinsky, & Rao, 2005).

In Experiment 2, we extended these findings by showing that the perceived legitimacy of power positions also modifies the effect of power on actual behaviour. Specifically, when power differentials were legitimate, powerful participants acted with more entitlement and powerless participants acted with less entitlement. This pattern of entitlement mirrors their position in the power structure and is consistent with observations from past research (e.g., Piff, 2014). However, we again found that this pattern was reversed when power positions were perceived to be illegitimate. Under these conditions, power holders displayed less entitlement whereas the powerless acted with more entitlement. This finding suggests that illegitimacy might activate concerns about the deservingness of power positions and fundamentally alter the enactment of power (and powerlessness).

Finally, in Experiment 2 we also explored participants' self-descriptions in an attempt to potentially clarify what participants were motivated to approach and to avoid. We reasoned that illegitimacy of power might raise concerns with the deservingness of status/power (reflected in competence ratings) or that it might raise concerns with the fairness of one's power (reflected in morality ratings). Neither of these possibilities was clearly evident in the data. Instead, the results showed that the powerless rated themselves as lesser on all dimensions (competence, morality, and sociability) when their power was illegitimate rather than legitimate, whereas the self-descriptions of powerful participants were not affected by legitimacy. The fact that this finding does not follow the same pattern as the motivational or behavioural measures indicates that self-conscious (i.e., descriptions) versus more spontaneous (i.e., motivational states and behaviour) responses to power might be relatively independent. Indeed, the observed pattern for self-descriptions did not follow the observed pattern for motivational states and for behaviour, and as such self-descriptions did not prove

illuminating in terms of our core findings. Nonetheless, future research might find it useful to investigate further precisely what people are motivated to approach or to avoid when they perceive power positions as illegitimate, perhaps by exploring what people anticipate from other's descriptions (i.e., meta-perceptions of morality, sociability and competence) rather than what they say in their own self-descriptions (e.g., Bergsieker et al., 2010).

Our aim with this research was to examine whether the effects of power on approach and avoidance motivations might be moderated by perceptions of the legitimacy of power relations between high- and low-power individuals. Even though we used well-established manipulations of legitimacy of interpersonal power relations between these two parties (e.g., Rodríguez-Bailón et. al, 2000; Willis & Rodríguez-Bailón, 2010), it is possible that our method of assigning participants to high- or low-power roles might have led participants to focus on an alternative power relationship: That between them and the experimenter (e.g., Spears & Smith, 2001; but see also Reicher & Levine, 1994a, 1994b). If so, then illegitimately assigning participants to a role can potentially lead to disengagement from the experiment (e.g., Greenberg & Folger, 1983; Tyler & Blader, 2000, 2003), especially when participants cannot benefit from this role—that is, when participants were illegitimately assigned to low-power roles by the experimenter. This can also explain the pattern of results obtained but through different processes from what we propose. Indeed when social systems are illegitimate, individuals are expected to disengage from them (De Cremer & Tyler, 2007; Emler & Reicher, 1995; Reicher & Emler, 1985; Tyler, 2003; Tyler & Blader, 2000). However, this does not necessarily mean that illegitimate social systems also change the relationship between powerful and powerless individuals and the expectations that they have of the power structure, which is what we aim to focus on. Therefore, to clarify whether the pattern of findings was due to the expectations that powerful and powerless individuals have of (il)legitimate power hierarchies, in the next chapter we will use measures that more

directly probe into this relationship. Still, future research should also address this issue and examine whether allocating participants to a high- and low-power role via fair or unfair procedures render them more likely to focus on the relationship with their power-counterpart or on their relationship with the experimenter.

Overall, these results reconcile insights into the motivational consequences of interpersonal power with knowledge from research on intergroup status relations. Whereas the first perspective suggests a tight link between power and the motivation to approach, the second seems to suggest that perceptions of the legitimacy of the social system – a system that confers status and power – is crucial to understanding the thoughts, feelings and actions of those who occupy different positions. For example, depending on perceptions of legitimacy, those who are disempowered within a current social arrangement might try to avoid the negative implications of this for their self (e.g., individual mobility, social creativity) or engage in collective actions intended to challenge and change the social system (e.g., Ellemers et al., 1990; Ellemers et al., 1993). Although both responses equally reflect the experience of low power, they nonetheless imply quite divergent goals and motivational states. By bringing together these two perspectives we advanced prior knowledge in that we showed that illegitimate power differentials do not just mitigate the link between power and approach (e.g., Lammers et al., 2008), but can also, and importantly, reverse the power-approach association. Accordingly, both theoretically and empirically, power can be associated with approach (when power is held legitimately) but also with avoidance (when power is held illegitimately).

We believe that these insights into the motivational consequences of illegitimate power can explain why people sometimes behave in ways that are not consistent with their current power position – for example, powerful leaders being reluctant to enact their decisions; or powerless individuals risking their safety or well-being to actively promote an

alternative version of society. These insights thus offer practical insight into the motivational processes at play in the context of power asymmetries, but could also offer theoretical guidance to researchers interested in better understand social stability and social change through the dual lens of processes associated with basic motivational frameworks and those associated with theory and research on intergroup relations.

Chapter 4: Examining How Perceptions of Legitimacy Modify the Effects of Power on Power-Related Behaviour

When, how, and why do people signal power to others in social interactions? Intuitively, those who have power are more likely to be in a position to display this to others. Research suggests that power does come with affordances that allow individuals to behave in ways that demonstrate their power, for example by adopting more expansive body gestures and occupying more space than less powerful others (Carney, Hall, & Smith LeBeau, 2005; Hall, Coats, & Smith LeBeau, 2005; Yap, Wazlawek, Lucas, Cuddy, & Carney, 2013). However, the powerful do not always enact their power, and sometimes the powerless behave in ways that communicate a status that they do not materially have (e.g., Dubois, Rucker, & Galinsky, 2012). The goal of this research was to examine the conditions under which behavioural choices reflect one's power position, and the conditions under which behavioural choices are instead made in opposition to one's power. We specifically focus on the role of legitimacy in shaping power-signalling behaviour in relational settings, and the role of impression management goals in explaining these choices. Before presenting two studies that explored these issues experimentally, we briefly review the literatures on power and individual behaviour, and on the role of legitimacy in shaping power-related actions.

Having Power and Showing It

Social power is defined as the ability to control outcomes that other people need or want and, thus, to influence other people (Fiske, 1993; Fiske & Berdhal, 2007; Thibaut & Kelley, 1959). Previous research on power has demonstrated how people typically seek to obtain or to maintain interpersonal power (e.g., Keltner, Gruenfeld, Galinsky, & Kraus, 2010) and how it affects social cognition (e.g., Guinote, 2007a, 2007b). For example, it has been demonstrated that possessing power is associated with enhanced stereotyping, cognitive performance, creativity, motivation to approach, and positive emotions (e.g., Berdahl &

Martorana, 2006; Guinote, 2007a, 2007b; Galisnky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Fiske, 1993; Keltner, Gruenfeld, & Anderson, 2003).

Social power has also been found to affect behaviour. For example in group discussions and dyadic interactions powerful individuals speak more and louder, assume more expansive and open postures, gesticulate more, and maintain more eye contact while speaking, but less while listening, than powerless individuals (Dittmann, 1972; Dovidio & Ellyson, 1985; Hall et al., 2005; Keltner, Van Kleef, Chen, & Kraus, 2008; Judge, Bono, Ilies, & Gehardt, 2002). These examples of behavioural disinhibition amongst the powerful are thought to be associated with their greater control over resources, relative to low-power individuals. The approach/inhibition theory of power (Keltner et al., 2003) suggests that high social power activates the behavioural approach system, whereas low social power activates the behavioural inhibition system. That is, because powerful people are, by definition, more resourceful than powerless individuals, they are able to act with less fear of reprisals and generally fewer constraints, and are able to perceive rewards and opportunities in the environment (Anderson & Berdahl, 2002; Keltner et al., 2003). This focus on rewards helps to activate the approach system. Conversely, because the powerless have relatively less control over valued outcomes than the powerful, they tend to be more thoughtful of their actions and avoidant of disapproval from power holders, and are more likely to perceive threats in the environment (Anderson & Berdahl, 2002; Keltner et al., 2003). This focus on threats helps to activate the inhibition system. The approach and inhibition systems are, in turn, associated with diverse cognitive, behavioural, and affective outcomes (Keltner et al., 2003). The approach system is associated with behavioural disinhibition and more positive emotions (such as enthusiasm and happiness), whereas the inhibition system tends to be associated with behavioural inhibition and negative emotions (such as anxiety and guilt). Thus, by connecting social power to these motivational systems, the approach/inhibition

theory of power draws predictions about the effects of power on various outcomes, from behaviour to emotions.

As such, social psychological research on interpersonal power provides examples of how people communicate and express their power in relational contexts, at least for contexts in which elevated (or lessened) power positions have already been established. But power is not always established, and instead can be something that is continually negotiated in interaction. Thus power is dynamic. In addition to displaying the power that they hold, those who have power can become motivated to defend it (e.g., when power is threatened by others) and people who do not have power can be motivated to seek it. Thus, while past research suggests a fairly linear relationship between power and power-related behaviour, it seems reasonable to assume that the relationship between power and behaviour might be more dynamic and variable once other factors are taken into account.

To date, research on power has focussed more on the behaviours that display power and less on the factors that modify the relationship between power and behavioural displays. Research in other domains, however, suggests that there are conditions under which the relationship between power and behaviour might be modified. Social identity theory (SIT, Tajfel, 1978; Tajfel & Turner, 1979) posits that individuals' responses to hierarchical social systems depend on how these are perceived in terms of their permeability, legitimacy, and stability (see Ellemers, van Knippenberg, & Wilke, 1990; Ellemers, Wilke, & van Knippenberg, 1993). Crucially, whereas legitimate status differences often tend to be accepted by both high- and low-status group members, perceptions of illegitimacy lead to different responses among members of these groups.

Moving Up: How the Powerless Respond to Illegitimate Power

Powerless group members often respond to illegitimate power structures by protesting against the status quo and expressing willingness to improve the position of their group. For

example, Reicher and Haslam (2006, 2015) showed that the powerless responded to perceived illegitimacy of the social system by challenging power holder's authority, such as by throwing food to the ground, or refusing to obey their orders. Research on collective action also suggests that powerless group members respond to illegitimacy by opposing the powerful—they express greater willingness to engage in marches, boycotts, petitions and riots, striving for an improved position of their group (e.g., Simon, Loewy, Stürmer, Weber, Freytag, Habig, Kampmeier, Spahlinger, 1998; Van Zomeren & Iyer, 2009; Van Zomeren & Klandermans, 2011; Van Zomeren, Postmes, & Spears, 2008). Combined, this research seems to suggest that the powerless are attuned to the opportunity for change that is embedded in illegitimate hierarchies and, consequently, follow behavioural strategies that aim at improving their social standing while objecting to power holders' authority. However, research in this tradition has as yet to demonstrate how these attitudes and behavioural inclinations are reflected in actual power-seeking behaviour. To do so is the first goal of this research. Given that illegitimately powerless individuals are likely to be motivated to change the status quo, it can be expected that they would seek opportunities to ascend in the hierarchy. They may do so, for example, by behaving in ways that signal power, such as by adopting open postures, dominating conversations, dressing in a way that conveys power, or by seeking physical distance from others (e.g., Dovidio & Ellyson, 1985; Hall et al., 2005; Johnson, Hegland, & Schofield, 1999). Behaviours such as these have been shown to be more frequently adopted by powerful individuals than by the powerless, as well as been used to prime power in experimental studies (e.g., Chen et al., 2001). However, whether these behaviours can be spontaneously adopted by the powerless to signal, and thereby claim, power, remains unexamined.

Stepping Down: How the Powerful Respond to Illegitimate Power

Researchers have also focused on how power holders respond to illegitimacy of power. For example, researchers have shown that, when power is illegitimate, power holders experience anxiety and inhibition, rendering them reluctant to enact their power (e.g., Goff, Epstein, Mentovich, & Reddy, 2013; Lammers, Galinsky, Gordijn, & Otten, 2008). A contrasting pattern has also been revealed, with power holders responding to illegitimate power by asserting their power. For example, Reicher and Haslam (2006, 2015) showed that perceived illegitimacy led powerful group members to become more authoritarian to the point of suggesting the use of military uniforms to signal their power and, ultimately, to protect the status quo. Power holders can also respond to illegitimate power by surrounding themselves by incompetent subordinates, so as to ensure their position remains unthreatened (Rodríguez-Bailón, Moya, & Yzerbyt, 2006). Finally, power holders have been observed to respond to illegitimate power by seeking social and physical closeness to their subordinates (Lammers, Galinsky, Gordijn, & Otten, 2012; Mead & Maner, 2012). This closeness might reflect attempts to appease the powerless so as to reduce the threat to the status quo (e.g., Chow, Lowery, & Hogan, 2013), or it can reflect genuine attempts to signal relinquishing of power when it is deemed illegitimate. In sum, existing evidence for how power-holders respond to the perception that their power is illegitimate is varied and somewhat inconsistent. Crucially, however, past research has not yet offered a direct examination of power holders' actual power-related behaviour as they seek to defend or concede their power. The second aim of this research is to examine this issue.

The Present Research

Past research suggests that the perception of an illegitimate social structure can fundamentally change individuals' behaviour in relation to the positions they occupy within that social structure. Still, experimental research looking at when the powerless might seek

power has so far only assessed attitudes, emotions, or behavioural intentions, while it has rarely assessed how the powerless actually behave when acquiring power in a relational (interpersonal) setting, that is, in a setting in which they expect to hold interactions with their power counterpart. Likewise, work on power holder's responses to threats to their power has also mainly focused on their behavioural intentions and has, so far, provided divergent findings, which suggest that inhibition, power assertion, and concessions of power to the powerless are all possible outcomes of illegitimacy. However, power holder's actual behaviour in response to illegitimacy has not yet been examined.

Our primary goal in the present research was therefore to offer a direct examination of how power and its legitimacy jointly influence power-related behaviour, that is, behaviour that either reproduces power relations, or seeks to change them (power-seeking or conceding). To conduct this investigation, we placed participants in a relational setting, where powerful and powerless participants expected to interact with each other, and examined their behaviour with two measures. First, we assessed whether or not participants chose to physically occupy a more or less powerful position in the interaction setting. Given that people often use external cues to signal or to obtain power (such as the way they dress, Damhorst, 1990; Hannover & Kühnen, 2002; Johnson et al., 1999; Lukavsky, Butler, & Harden, 1995), we examined whether participants with high (vs. low) power chose to sit in a more or less impressive chair when interacting with a low (vs. high) power partner. Chen, Lee-Chai, and Bargh (2001) successfully used a more or less impressive chair (a 'professor's chair' and a 'guest's chair') to prime high versus low power. In our research, we capitalized on the idea that the type of chair signals different degrees of power to examine to what extent participants spontaneously chose one or the other chair as a function of their previously induced power position and its manipulated legitimacy. We hypothesized that when power is legitimate the powerful and the powerless would behave in ways that mirror their positions:

High-power participants would choose the more impressive chair and low-power participants would choose the less impressive chair. However, when power is illegitimate, we expected that this mirroring would be broken and that, instead, the powerless would opt for the more impressive chair. This behavioural pattern by the illegitimately powerless can reflect an attempt at moving up in the hierarchy and claim power. Alternatively, this behavioural choice may also reflect how the powerless experience their low-power position when power is illegitimate. Comparing to when power is legitimate, it is possible that when power is illegitimate the powerless might actually feel empowered and display behaviour that is closer to that of power holders. In the present research we therefore try to unveil whether the behavioural choices of the powerless stem from attempts at seeking power or from increased feelings of power. On the other hand, in the absence of a consensus in the literature regarding powerful people's behavioural responses to illegitimate power, we did not make specific predictions about which behaviour (inhibition, authoritarian protection of power, or concessions to the powerless) would be adopted by the powerful when power is illegitimate.

As a second behavioural manifestation of power, we also examined the physical distance participants established between themselves and their interaction partner. Physical distance is an important indicator of the desire to establish a positive interaction and the distance an individual establishes from their interaction partner has consequences for how the partner experiences the interaction (e.g., Geisen & McClaren, 1976; Gifford & O'Connor, 1986). Individuals are likely to seek less physical distance when they wish to establish a more positive interaction with their partner and they may seek more physical distance when they perceive or anticipate a conflict with their interaction partner (e.g., Festinger, Schachter, & Back, 1950; Goff, Steele, & Davies, 2008). Given that illegitimate power can reasonably be expected to lead to conflict between those who are placed in powerful and powerless positions through illegitimate means, participants can be expected to increase their distance

from each other in illegitimate compared to legitimate conditions. Alternatively, it is also possible that powerful participants respond to illegitimate conditions by decreasing—rather than increasing—their distance. Indeed, a desire for closeness may stem from genuine feelings of affection, but may also stem from a wish to appease the interaction partner in an effort to maintain advantage in unequal social systems (Jackman, 1994). As such, high-power participants may increase physical closeness towards the powerless when they anticipate that their power might be questioned (i.e., when power is illegitimate).

Experiment 3 tests these basic predictions. Experiment 4 aimed to replicate the core findings of Experiment 3 and to extend our analysis by shedding further light on the possible motives underlying these behaviours. Indeed, the very same behaviour might indicate very different motives, such as when the powerful choose the less impressive chair, or seek physical closeness because they genuinely aim to communicate that they concede their power, or because they wish to defend their power by appeasing the powerless. Experiment 4 seeks to provide further evidence for these motivations by examining participants' desire to communicate specific impressions to their interaction partner.

Pilot Study A: Selecting Chairs More or Less Associated With Power

In the two studies that follow, participants are asked to place two rather different chairs (a bigger armchair and a smaller armless chair—see Appendix C for a photograph of the chairs) in a room and to sit on one of them. To determine whether the bigger chair is more associated with power than the smaller chair, the two chairs shown in Appendix C were placed in an empty room, next to each other. Twenty British students and workers at the University of Exeter (12 females, 8 males; $M_{\text{Age}} = 26.70$, $SD = 5.75$) were asked to take a look at the two chairs and to give their opinion about them. Participants were not compensated in any form.

Participants were asked to complete a short questionnaire while looking at the chairs. In this questionnaire, participants were asked to indicate which one of the two chairs they thought was more associated with power by placing a cross next to a picture that portrayed each chair (1 = Bigger chair; 2 = Smaller chair). They were also asked to indicate on bipolar rating scales the extent to which they thought one of these two chairs was more *impressive*, *prestigious*, and *comfortable* than the other (1 = Picture of the bigger chair, 9 = Picture of the smaller chair).

Results revealed that all participants thought that the bigger (arm)chair was more associated with power than the smaller (armless) chair. To examine whether participants thought that one of the two chairs was more impressive, prestigious, and comfortable than the other, we conducted one sample *t*-tests, testing difference to the mid-point of the scale (5), which was the scale point at which both scales were deemed equal. Results revealed that participants thought that the bigger (arm)chair was more impressive [$M = 2.75$, $SD = 1.29$; $t(19) = -7.78$, $p < .001$], more prestigious [$M = 2.50$, $SD = 1.10$; $t(19) = -10.16$, $p < .001$], and more comfortable [$M = 1.70$, $SD = .98$; $t(19) = -15.08$, $p < .001$] than the smaller (armless) chair. We thus proceeded to the main studies, using a chair that was associated with power (bigger armchair) and a chair that was less associated with power (smaller armless chair).

Experiment 3

Method

Design and participants. Participants were 95 students (84 females, 11 males; $M_{age} = 20.51$, $SD = 3.87$) at the University of Exeter, who were randomly assigned to a 2 (Social Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants experimental design. The study took place in the laboratory in individual sessions, which took approximately 45 minutes to complete. Participants were compensated with £5 (approximately 7.77 US Dollars) for their participation.

Procedure. After arriving at the laboratory, participants were greeted by a male experimenter and escorted to a cubicle where they sat at the computer, read and signed an informed consent form. All the instructions, information about the study, and manipulations of independent variables were delivered via computer.

Participants read that the study was about problem-solving skills. Participants were informed that they would be asked to perform an organizational task with another participant present elsewhere in the laboratory at that moment. In this task, one participant would take the role of supervisor of the organizational task and the other participant would take the role of worker. Supervisors would have power over the workers in that supervisors could assign tasks to workers and evaluate their performance, whereas the workers' role would be to perform the tasks allocated to them by supervisors. Participants learned that the supervisors would decide how workers would be rewarded for their participation in the study (e.g., Guinote, Judd, & Brauer, 2002).

To enable allocation into supervisor and worker roles—the power manipulation—participants completed a (bogus) test of problem-solving skills (PSST–Problem-Solving Stratified Test) that allegedly identified problem-solving abilities in work and organizational contexts. The test was completed through the computer. Participants waited until the other (bogus) participants were finished and subsequently received feedback, also through the computer. Participants assigned to the high-power condition read that, based on the scores of the problem-solving test, they were “good at judging and organizing solutions and at seeing the big picture in a problem or task” and, therefore, would be assigned the role of supervisor. Participants in the low power condition read that, based on the scores of the problem-solving test, they were “good at generating solutions for practical tasks and at putting those solutions into practice” and, therefore, would be assigned to the role of worker.

Before proceeding, participants read additional information about the problem-solving test they had just completed. This information served to manipulate legitimacy of power and was adapted from previous work (Rodríguez-Bailón, Moya, & Yzerbyt, 2000). Participants read that this test was developed by a group of experts in collaboration with the Human Resources departments of major American companies (such as General Electric) and that the test had been widely used. Participants assigned to the legitimate power condition read that evidence showed that the test was very good, that it was a very accurate measure of problem-solving skills, and a very good predictor of leadership skills more generally. Participants assigned to the illegitimate power conditions read that evidence showed that the test was not very good, that it did not seem to be a very accurate measure of problem-solving skills, and that it was not a good predictor of leadership skills more generally.

Next, participants responded to the dependent measures described below. At the end of the study, participants were thanked, debriefed, and all participants were paid £5 for their participation.

At the end of the experiment, participants were thanked and debriefed. Suspicion was also probed during debriefing.

Measures.[4, 5] Participants completed the dependent measures in the order described below.

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[4] This experiment also included an examination of participants' psychophysiological responses of threat and challenge in response to power and its legitimacy. However, technical difficulties rendered the psychophysiological data very noisy and, thus, difficult to analyse or interpret meaningfully.

[5] A lexical decision task also examined the salience of the concept of change. An interaction between power and word-type (non-words vs. social change-related words) was found, F (1, 90) = 6.12, p = .02, η^2_p = .06. Contrasts analyses revealed that high and low-power participants took longer to identify non-words (M_{Powerful} = 859.91, SD = 246.05 and $M_{\text{Powerless}}$ = 893.82, SD = 259.06) than to identify social change-related words (M_{Powerful} = 760.11, SD = 224.87 and $M_{\text{Powerless}}$ = 727.31, SD = 183.10), ps < .001. The interaction merely reflects the fact that this difference was stronger for low-power participants than for high-power participants. This measure was unrelated to the core goals of this study and therefore is not reported in here.

Power-seeking behaviour. After the manipulations, participants were escorted into another room where the organizational task was allegedly going to take place. This new room was empty, except for two chairs that were stacked in the corner of the room. One of these chairs was clearly more associated with power, was more impressive, more prestigious, and more comfortable than the other. Participants were asked to place the two chairs in the room and to take a seat, while the experimenter left to collect a questionnaire for completion. Since participants were led to believe that they would be performing the organizational task with another participant in this room, if the participant chose to sit on one of the chairs, the other chair would be left for their interaction partner. However, in reality, no other participant was brought to the room, so that participants made their chair choices independently. When the experiment ended, the experimenter recorded participants' seat selection (i.e., on which chair they chose to sit).

Physical distance. At the end of the experiment, the experimenter also recorded the distance between the two chairs (in centimetres).

Suspicion and Manipulation checks. There was no evidence of suspicion during the debriefing. Thus, no participant was excluded from the sample. After taking their seat, and while waiting for their partner to arrive, participants were handed a questionnaire for completion, which contained the manipulation checks. The manipulation of power was checked by asking participants to which position they had been assigned (*supervisor* vs. *worker*). Legitimacy of power was checked by asking the extent to which participants thought their assignment to the position of supervisor or worker had been appropriate (from 1 = *Completely inappropriate* to 7 = *Completely appropriate*), fair (from 1 = *Completely unfair* to 7 = *Completely fair*), and legitimate (1 = *Completely illegitimate*, 7 = *Completely legitimate*). Participants were also asked whether they would recommend the problem-solving test if someone were to ask them how to measure leadership skills (1 = *Strongly*

Disagree, 7 = *Strongly Agree*). Together, these items formed a reliable scale (α = .71) and were averaged for subsequent analyses.

Ancillary measures. The following measures were also included in the questionnaire to provide additional insights into the effects of power and legitimacy of power and to examine their potential links to behaviour.

Perceptions of the likelihood of change. Perceptions of the likelihood of change in the power structure were assessed by asking participants to what extent they thought that, if they were to take the same leadership test once again, their position as Supervisor or Worker would change (1 = *Not at all*, 7 = *Very much*), the position of the other participant would change (1 = *Not at all*, 7 = *Very much*), and they would be assigned to the same position (1 = *Not at all*, 7 = *Very much*). The latter item was reverse coded, such that the higher the scores the more changeable participants perceived their position to be. Together, these items formed a reliable scale (α = .66) and were averaged for subsequent analyses.

Acceptance of the status quo. We assessed participants' willingness to accept the *status quo* by examining the extent to which participants were willing to support the allocation to high- and low-power roles. Specifically, participants were asked to indicate how much confidence they had in the other participant's capacity to perform his/her role in the organizational task well (1 = *Not at all*, 7 = *Very much*) and to what extent they thought the other participant was capable of performing his/her role appropriately (1 = *Not at all*, 7 = *Very much*). Participants were also asked to what extent they were willing to accept, support, and oppose (reverse coded) the decisions the other participant would make during this task. Together, these five items formed a reliable scale of acceptance of the status quo (α = .79), so they were averaged for subsequent analyses.

Emotions. Participants were asked to indicate the extent to which they experienced each of 13 emotions when they thought about the position (supervisor or worker) to which

they had been assigned (1 = *Strongly agree*, 7 = *Strongly disagree*). An exploratory factor analysis (maximum likelihood) with varimax rotation extracted two factors that explained 68.86% of the total variance [*KMO* = .88; *Bartlett's Test of Sphericity*, χ^2 (78) = 861.58, p < .001; *MSA* value = .87], (see Appendix D for item loadings on each factor). We thus formed two indexes of emotions to indicate anger [displeased, annoyed, irritated, resentful, furious, frustrated, indignant, content (reverse coded), and pleased (reverse coded), α = .93], and anxiety [anxious, tense, calm (reverse coded), and confident (reverse coded), α = .93].

Results

Unless otherwise indicated, all analyses were conducted with 2 (Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants ANOVAs.

Manipulation checks. As intended, all participants correctly identified the role they were assigned to (supervisor or worker). Also as intended, participants perceived their position to be more legitimate in the legitimate (M = 4.48, SD = 1.00) than in the illegitimate conditions (M = 4.12, SD = .92), although this effect was only marginally reliable, F (1, 91) = 3.66, p = .059, η^2 = .038. Importantly, perceptions of the legitimacy of power were unaffected by a main effect of power, F (1, 91) = 1.12, p = .294, η^2 = .012, or by the interaction between power and legitimacy, F (1, 91) = .10, p = .758, η^2 < .001.

Power-seeking behaviour. The extent to which participants selected the more versus the less impressive chair was analysed with binomial logistic regression with power, legitimacy, and the power by legitimacy interaction term as predictor variables. This revealed that the main effects of power, *Exp*(B) = .88, *Wald*(1) = .10, p = .754, and of legitimacy, *Exp*(B) = 1.21, *Wald*(1) = .22, p = .639, were not significant. However, a significant interaction between power and legitimacy, *Exp*(B) = .10, *Wald*(1) = 7.36, p = .007 was found (see Table 4.1). Simple effects were analysed with the MODPROBE macro (Hayes & Matthes, 2009). This revealed reliable simple effects of power in the illegitimate condition, *b*

= -1.28, *SE* = .61, *Z* = -2.11, *p* = .035, and a marginally significant effect of power in the legitimate condition, *b* = 1.06, *SE* = .61, *Z* = 1.73, *p* = .083, but these effects were in opposite directions. In the legitimate condition, powerful participants were (marginally significantly) more likely to choose the more impressive chair than powerless participants. However, in the illegitimate condition, powerless participants were more likely to choose the more impressive chair than powerful participants. We also found simple effects of legitimacy in the high-power condition, *b* = 1.43, *SE* = .63, *Z* = 2.26, *p* = .024, but not in the low-power condition, *b* = -.91, *SE* = .59, *Z* = -1.55, *p* = .121. Powerful participants were more likely to choose the less impressive chair when their position was illegitimate than when their position was legitimate. However, powerless participants were equally likely to choose each chair, irrespectively of how legitimate they perceived their position to be.

Table 4.1

Frequency of Chair Selection per Experimental Condition in Experiment 3

	High Power		Low Power	
	Legitimate	Illegitimate	Legitimate	Illegitimate
High Power Chair	13	7	9	14
Low Power Chair	8	18	16	10

Physical distance. An ANOVA on the distance between the two chairs, measured in centimetres, revealed that the effects of power, F (1, 91) = .53, p = .467, η^2 = .006, and of legitimacy, F (1, 91) = .07, p = .790, η^2 < .001, were not significant. However, a reliable interaction between power and legitimacy was found, F (1, 91) = 5.17, p = .025, η^2 =.053 (see Table 4.2). Simple effects revealed that when power was legitimate, high- and low-power participants placed the chairs at similar distance from one another (respectively, *M* = 123.02,

SD = 26.54; *M* = 113.84, *SD* = 25.54), *F* (1, 94) = 1.15, *p* = .286, η^2_p = .012. However, when power was illegitimate, powerless participants placed the chairs further apart (*M* = 128.96, *SD* = 37.54) than powerful participants (*M* = 111.08, *SD* = 24.23), *F* (1, 94) = 4.69, *p* = .033, η^2_p = .048. In addition, simple effects showed that powerful participants placed the chairs at similar distance from one another in the legitimate and illegitimate conditions, *F* (1, 94) = 2.04, *p* = .157, η^2_p = .021. Powerless participants, on the other hand, tended to place the chairs further apart when their power was illegitimate than when it was legitimate, *F* (1, 94) = 3.28, *p* = .073, η^2_p = .034.

Table 4.2

Means and Standard Deviations for Distance between Chairs, as a Function of Power and of Legitimacy in Experiment 3

	Legitimate Power		Illegitimate Power	
	M	(SD)	M	(SD)
High Power	123.02a	(26.54)	111.08a	(24.23)
Low Power	113.84a	(25.54)	128.96b	(37.54)

Ancillary measures.

Perceptions of the likelihood of change. An ANOVA revealed that the effects of power, *F* (1, 91) = .25, *p* = .615, η^2 = .003, and of legitimacy, *F* (1, 91) = .001, *p* = .974, η^2 < .001, were not significant, but a reliable interaction between power and legitimacy was found, *F* (1, 91) = 7.00, *p* = .010, η^2 = .071. Simple effects revealed that illegitimate power positions appeared more changeable than legitimate power positions, but only for powerful participants (illegitimate/high power: *M* = 3.28, *SD* = .80; legitimate/high power: *M* = 2.83, *SD* = .72), *F* (1, 94) = 3.29, *p* = .073, η^2_p = .034. By contrast, for powerless participants there was a

tendency for the reverse to be true (legitimate/low power: M = 3.36, SD = .86; illegitimate/low power: M = 2.92, SD = .90), F (1, 94) = 3.50, p = .065, η^2_p = .036. Also, when power was legitimate, low-power participants thought their position was more likely to change than did high-power participants, F (1, 94) = 4.78, p = .031, η^2_p = .049. However, when power was illegitimate, power did not affect the extent to which participants perceived that their position was likely to change, F (1, 94) = 2.30, p = .132, η^2_p = .024.

Acceptance of power. The main effect of power was significant, F (1, 91) = 12.68, p = .001, η^2 = .122, showing that powerful participants were more willing to accept the power positions (M = 5.40, SD = .68) than powerless participants (M = 4.87, SD = .76). The main effect of legitimacy, F (1, 91) = .04, p = .844, η^2 < .001, and the interaction, F (1, 91) = .05, p = .829, η^2 < .001, were not significant.

Emotions. Analysis of the anxiety-related emotions revealed no significant effects: power, F (1, 91) = .48, p = .489, η^2 = .005, legitimacy, F (1, 91) = 1.31, p = .255, η^2 = .01, and their interaction, F (1, 91) = 1.72, p = .193, η^2 = .02. Overall, and compared to the mid-point of the scale (4), participants did not report feeling anxious (M = 2.42, SD = 1.07), t (91) = -14.25, p < .001. By contrast, analysis of anger-related emotions revealed a significant main effect of power, F (1, 88) = 21.76, p < .001, η^2 = .195. Although the means were again lower than the mid-point of the scale, powerless participants reported relatively more anger (M = 2.89, SD = 1.17) than powerful participants (M = 1.94, SD = .68). The main effect of legitimacy, F (1, 88) = 1.64, p = .204, η^2 = .015, and the interaction, F (1, 88) = .06, p = .811, η^2 < .001, were not reliable. As expected, anger was positively associated with anxiety, r = .38, p < .001 (see Table 4.3 for correlations between all dependent measures in Experiment 3).

Table 4.3

Correlations Between Perception of the Likelihood of Change, Acceptance of Power, Anxiety, Anger, Power-Seeking Behaviour, and Physical Distance in Experiment 3.

	1	2	3	4	5	6
1. Perceptions of Change	-					
2. Acceptance of Power	.05	-				
3. Anxiety	.16	.18	-			
4. Anger	.17	-.18	.38**	-		
5. Power-Seeking	.07	.14	-.04	-.11	-	
6. Physical Distance	.12	-.18	-.10	.16	.05	-

** $p < .001$

Discussion

Experiment 3 provides evidence that perceptions of legitimacy affect power-seeking and power-signalling behaviour. When power positions were legitimate, both powerful and powerless participants behaved in ways that reflected their power positions: that is the powerful chose for themselves the most impressive chair whereas the powerless chose for themselves the least impressive chair. However, as predicted for the powerless, this behavioural pattern reversed when power was illegitimate. Specifically, when power was illegitimate, powerless participants were more likely to choose the more impressive chair than were powerful participants. Although legitimacy only reliably affected seat selection for the powerful, and not for the powerless, legitimacy of power did affect the behaviour of the powerless in the more subtle measure of seating distance. Specifically, powerless participants who perceived power to be illegitimate sought greater distance from their (powerful) partner

than any other participants. That is, legitimacy of power affected the powerful primarily by guiding their choice of seat, whereas it affected the powerless primarily by guiding the physical distance they chose from their interaction partner.

Although descriptively the pattern observed for the seating choice of the powerless was consistent with predictions derived from social identity theory (i.e., seeking power under conditions of illegitimacy), the finding that the difference in chair selection between legitimately and illegitimately powerless participants was not reliable was surprising. It is possible that this emerged because some powerless participants assumed that they were required by the experiment to use the less impressive chair. Since powerful individuals are by definition less constrained, it is possible to observe more flexibility and variability in their behaviour (Guinote, 2007b). This may have led powerful participants to be more responsive to the manipulation of legitimacy, whereas powerless individuals may have been more focused on abiding by what they assumed were the task requirements (i.e. their responsibilities to the experimenter rather than their feelings toward their interaction partner). To examine whether the lack of effect of legitimacy for low-power individuals reflects an inherent effect of power, or a result of assumed task requirements, in Experiment 4 we clarified to all participants that the chairs were unconnected to the content of the task.

This explanation is further supported by the finding that legitimacy did affect powerless participants' behaviour in terms of the physical distance they sought from their (expected) powerful partner. Indeed, although participants may have assumed that the experiment required them to choose the chair that corresponded to their allocated power, they were arguably unlikely to have inferred a similar level of experimental demand regarding the distance between the chairs. Since the powerful are often perceived as colder, and more distant and aloof than the powerless (e.g, Glick, Diebold, Bailey-Werner, & Zhu, 1997; Glick & Fiske, 2001a,b; Kitano & Sue, 1973; MacDonald & Zanna, 1998; Maddux, Galinsky,

Cuddy, & Polifroni, 2008), these participants may have used this greater distance as an additional means to communicate their desired power, or their desire to be respected by their partner. On the other hand, there was a non-significant tendency for powerful participants to decrease the distance between chairs when their power was illegitimate (vs. legitimate). This suggests that illegitimacy of power might lead powerful participants to award greater importance to being liked, potentially as a means to ingratiate themselves with the powerless. However, this effect was non-significant and requires further test. We will thus examine the possibility that powerful and powerless' power-related behaviour is driven by impression management goals (that is, to be liked or to be respected by others).

Alternatively, it is possible that the increased distance that powerless participants sought from their interaction partner can also indicate a general disengagement from the experiment. Although we used well-established manipulations of legitimacy of interpersonal power relations (e.g., Rodríguez-Bailón et. al, 2000; Willis & Rodríguez-Bailón, 2010), our allocation of participants to high- and low-power positions might have led them to focus on the relationship they establish with another relevant power figure in this context: The experimenter (e.g., Spears & Smith, 2001; but see also Reicher & Levine, 1994a, 1994b). By allocating participants to a role via illegitimate means, the experimenter could have become to be perceived as illegitimate him/herself (Tyler, 2003; Tyler & Lind, 1992) and, consequently, this could have led participants illegitimately allocated to low-power roles to disengage from the experiment (e.g., Greenberg & Folger, 1983; Tyler & Blader, 2000, 2003), which could be reflected in increased distance-taking. Therefore, to clarify whether distance-taking was due to disengagement from the task or due to the expectations that individuals hold of (il)legitimate power hierarchies (which is the concern of the current research), in the next study we will use measures that directly focus on the interaction partner (not on the experimenter) and that might help explain distance-taking behaviour.

Our ancillary measures revealed that high-power participants were more accepting of the status quo than low-power participants. It is interesting to note that, even though legitimacy of power did not affect acceptance of power, it did affect participants' behaviour. This appears to support the idea that participants' behaviour was not driven purely by their willingness to accept (or reject) power positions, but rather it was used more strategically, perhaps as a vehicle to communicate their goals during the social interaction. High-power participants were eager to accept the status quo (that is, to accept the hierarchy in which they were on top) but when power was illegitimate they behaved in ways that undermine their superior position in the power structure: They saved the most impressive chair for, and sought closeness with, their powerless interaction partner. Thus, it is possible that high-power participants tried to defend their position when power was illegitimate by strategically behaving in ways that are reminiscent of appeasement and that, at least superficially, cloaked their intention to protect their power. Powerless participants, on the other hand, sought greater distance from their interaction partner when power was illegitimate (vs. legitimate). This suggests that illegitimate hierarchies might be perceived as opportunities by powerless individuals to seek power and to communicate their intentions to claim power. To examine the possibility that individuals' behaviour might be used strategically to communicate their goals during social interactions, in Experiment 4 we assess participants' impression management goals for the interaction with their partner.

Furthermore, the other ancillary measures revealed that illegitimacy increased perceptions of the likelihood of change, as expected, but unexpectedly they did so only for high-power participants. On the other hand, a main effect of power was found on anger, whereby low-power participants were angrier than high-power participants. This finding was inconsistent with the pattern found on this very same measure in Experiment 1, where, at least for low-power participants, experience of anger was dependent on the perception of

legitimacy—the illegitimately powerless experienced more anger than the legitimately powerless. This inconsistency might relate to the method used to manipulate legitimacy, which varied slightly from Experiment 1 to Experiment 3. Specifically, although legitimacy was manipulated by providing bogus information regarding the leadership test in both studies, in Experiment 1 this was done orally by the experimenter whereas in Experiment 3 participants read this information on the computer. It is possible that participants paid less attention to the information delivered via computer than they did to the information provided by the experimenter and, thus, the manipulation of legitimacy could have been stronger in Experiment 1 (vs. 3), at least relative to the manipulation of power. Indeed, closer inspection of the manipulation checks indicate that the main effect of legitimacy on the overall perception of legitimacy was stronger in Experiment 1 [F (1, 79) = 18.92, $p < .001$, $\eta^2 = .188$] than it was in Experiment 3 [F (1, 91) = 3.66, $p = .059$, $\eta^2 = .038$]. Thus, even though powerless participants were responsive to legitimacy in more subtle measures (such as distance-taking) in Experiment 3, the manipulation of legitimacy might not have been strong enough to affect more explicit measures (such as self-reported anger). Therefore, in the next study we will manipulate power and legitimacy by following the method used in Experiment 1—information delivered by the experimenter rather than via a computer.

In sum, the ancillary measures of the current study seem contradictory and reveal rather different patterns than those shown by the behavioural measures. As such, emotional processes or expectations about change do not seem sufficient to explain the differing behavioural choices of low and high-power people under conditions of legitimacy versus illegitimacy.

Thus, although promising, the results of this first experiment require replication and extension in order to uncover the process that might explain the patterns of behaviour we have observed.

Experiment 4

Experiment 4 aimed to replicate and extend the findings of Experiment 3. Specifically, we sought to improve our understanding of how perceived legitimacy modifies effects of social power on power-related behaviour by examining how these variables affect impression management. This allows us to ascertain the extent to which participants' chair selection was linked to self-focused concerns or goals. Indeed, although participants' chair choices were in fact independent, in participants' minds their chair choice determined which chair the other participant would get (i.e., it was not in fact a zero-sum choice, but it might have been perceived as such by participants). As such, it is possible that participants' choices reflected what they believed the other participant deserved rather than what they wished to communicate about themselves. Although the finding that similar patterns were revealed for the measure of physical distance (which is not zero-sum, and for which, therefore, this explanation would appear less likely) supports the idea that participants' behaviour is not merely guided by other-focused concerns, Experiment 4 aimed to gather more direct evidence for this link. Alternatively, it is also possible that participants' behaviour neither conveys an attempt to communicate how they wished to be seen nor what they believed their interaction partner deserves but, rather, it might be a reflection of how perceptions of legitimacy impact on how power is experienced. The fact that powerful and powerless participants behaved in ways that do not typically correspond to their power positions when these were illegitimate (vs. legitimate), might simply be explained by diminished feelings of power amongst power holders and increased feelings of power amongst the powerless when hierarchies were seen to be illegitimate. As such, in Experiment 4 we tried to clarify the extent to which power-related behaviour was guided by self- focused concerns, or by the extent to which participants felt powerful.

Past research has shown that people often evaluate themselves and others along two dimensions: Competence and warmth (Fiske, Cuddy, & Glick, 2007), the later incorporating both sociability and morality (Leach, Ellemers, & Barreto, 2008). Although individuals ideally seek to be seen as both competent (that is, to be respected) and warm (that is, to be liked) (Baumeister, 1982), contextual factors can affect the extent to which individuals assign more importance to being seen as competent or as warm. For example, research focusing on interracial interactions has shown that White American participants interacting with members of racial minority groups primarily sought to be liked and seen as moral, whereas members of racial minority groups placed more importance on being seen as competent, or respected, than on being seen as warm (Bergsieker, Shelton, & Richeson, 2010).

In a similar vein, we considered the possibility that the desire to be respected or to be liked might vary as a function of social power and legitimacy, and that this might provide some clues as to why participants were more prone to select one chair over the other, and to increase or decrease the distance between them. Specifically, Experiment 3 showed that, when power is illegitimate, low (vs. high) power individuals prefer the most impressive chair and place it further away from their (expected) partner's chair. This behaviour may reflect a desire to be respected that is more intense than the wish to be liked (which would be better communicated by closeness). Given that individuals' perceived competence can be predicted from their perceived status and power relative to others (Cuddy, Fiske, & Glick, 2008; Fiske et al., 2007; Fiske, Xu, Cuddy, & Glick, 1999), it is likely that the powerless use the opportunity offered by illegitimate power structures to express their desire for respect by approaching power (such as claiming the most impressive chair). However, illegitimate power structures may lead to the anticipation of conflict between those seeking to change their undeserved (low) power position and those seeking to maintain their undeserved (high) power position (Ellemers, 1994; Van Knippenberg & Ellemers, 1990). Thus, by increasing

physical distance from their (powerful) partners, low-power individuals might avoid the anticipated conflict, while asserting their pursuit of power and of respect.

In Experiment 3, high-power participants were eager to accept their superior position irrespective of conditions of legitimacy. However, their power-signalling behaviour was affected by legitimacy of power: When power was legitimate, the powerful behaved in ways that reflected their intention to accept their superior position, that is, they enacted power; however, when power was illegitimate, despite reporting acceptance of power, the powerful behaved in ways that appeared to contradict their intentions to accept the hierarchy, that is, they made concessions to the powerless and tended to seek physical closeness. Thus, high-power individuals' choice of the less impressive chair is less likely to derive from diminished feelings of power, and more likely to reflect an increased desire to be liked so as to appease their (expected) interaction partner when power is questioned. This is further supported by the non-significant tendency for high-power individuals to reduce physical distance in this condition. Therefore, when power is illegitimate, the powerful might be driven by a strategic motivation to maintain their privileged position and, consequently, attempt to ingratiate the powerless by communicating their desire for a positive interaction by saving the most impressive chair to their (powerless) interaction partner and by seeking physical closeness. However, given that the latter effect was merely marginally significant, it requires replication, so as to clarify whether or not this tendency is repeated (and significant), and potentially explained by impression management goals.

Experiment 4 followed the same experimental design of Experiment 3, with a few procedural changes. First, participants read that those allocated to a high-power position would be rewarded with an additional £3 (instead of having to decide how the other participant would be rewarded, as in Experiment 3). Second, to assess power-seeking

behaviour we used the same behavioural measures as in Experiment 3 but we clarified that, for the purposes of the task, it did not matter what chair participants chose.

In Experiment 4 we therefore expect to replicate the results of Experiment 3 regarding power-related behaviour. Additionally, we hypothesize that illegitimate power increases powerless participants' desire to be respected, whereas it increases powerful participants desire to be liked and that this contributes to these participants' behavioural choices.

Method

Design and participants. A total of 105 students from the University of Exeter (86 females and 18 males, one participant did not indicate his/her sex; M_{age} = 19.60, *SD* = 3.36) were tested individually and randomly allocated to a 2 (Social Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants experimental design. Each session lasted 30 minutes and participants were compensated with 0.5 course credits for their participation.

Procedure. Procedures were similar to those used in Experiment 3. However, in Experiment 4 manipulations of power and legitimacy were not delivered via computer but orally by the experimenter, the (bogus) leadership test was not completed via computer but was divided into three paper booklets, and participants were told that those selected to be directors would be paid £3 extra (instead of deciding how workers would be rewarded - as they were informed in Experiment 3).

Upon completion of the leadership test, the experimenter collected the booklets from the participants allegedly to score their answers. After four minutes, the experimenter returned to the cubicle where the participant was working and informed participants that, based on the scores of the leadership tests, they would either be the director (high power) or the worker (low power). Next, participants responded to the dependent measures in the order

described below. At the end of the study, participants were thanked, debriefed, and all participants were paid the additional £3.

Measures. Participants completed the dependent measures in the order described below.

***Suspicion and Manipulation checks*.** There was no evidence of suspicion during the debriefing. Thus, no participant was excluded from the sample. The manipulation of power was checked by asking participants which position they had been assigned to (*director* or *worker*) and who they thought would have more power in the organizational task (1 = *Director*, 9 = *Worker*). Legitimacy of power was checked by asking the extent to which participants thought their assignment to the position in the organizational task had been fair (1 = *Completely unfair*, 9 = *Completely fair*) and legitimate (1 = *Completely illegitimate*, 9 = *Completely legitimate*). Together, these items formed a reliable scale ($r = .71$, $p < .001$) and were averaged for analyses.

***Desired impressions*.** We measured desired impressions in two ways. First, participants were asked to imagine the upcoming organizational task and to indicate how important it was for them to demonstrate their competence, *friendliness* (i.e., sociability), and *that they are a good person* (i.e., morality), to the other participant. The response scale was a 9-point unipolar continuum ranging from 1 (*Not very important*) to 9 (*Very important*). After this, participants indicated how they would like to be seen by the other participant on 9-point bipolar scales, from 1 (*intelligent* and *efficient*) to 9 (*kind* and *friendly*).[6] Participants were also asked, "If you had to choose between being liked and being respected by the other participant, which would you regard as more important?", with responses given from 1 (*more*

[6] In addition to the items described here, a fourth item (ranging from 1 – *capable* to 9 – *flexible*) was used to assess how participants wanted be seen by the other participant during the organizational task. However, in hindsight, this item does not adequately represent a forced choice between competence and warmth, and was therefore excluded from analyses.

important to be liked) to 9 (*more important to be respected*). To parallel the other two items, we reverse scored this item, such that higher scores indicate a preference to be liked. These items were adapted from Bergsieker, Shelton, and Richeson (2010) and, together, formed a reliable scale ($\alpha = .72$) and were averaged for analyses. Higher scores on this scale indicate a greater desire to be liked than to be seen as competent.

Power-seeking behaviour. Power-seeking behaviour was assessed with the same measure as in Experiment 3 (using the same chairs and room). However, in Experiment 4 participants were told that "for the purposes of the experiment, you can sit wherever you like. It doesn't really matter which chair you choose to sit on". Again, we recorded participant's seat selection (i.e., where they chose to sit).

Physical distance. Once again, at the end of the experiment, the experimenter recorded the distance between chairs (in centimetres).

Ancillary measures. Again, we added some measures to gain further insight into the effects of power and legitimacy.

Perceptions of the likelihood of change. Perceptions of change were assessed by asking participants to what extent they thought that, if they were to take the same leadership test again, their performance would be the same (1 = *Not at all*, 7 = *Very much*) and their position as Director or Worker would be the same (1 = *Not at all*, 7 = *Very much*). Together, these items formed a reliable scale ($r = .71$, $p < .001$) and were averaged for analyses. The scale was reverse coded for analyses, such that the higher the scores the more changeable participants perceive their position to be.

Emotions. We extended our emotion measure in this study by using a more comprehensive scale that examines both positive and negative affect—the PANAS scale (Watson, Clark, & Tellegen, 1988; see Appendix E for the items used in this scale). Participants indicated on a 9-point scale the extent to which they experienced 20 emotions at

that moment, including included positive (e.g., excited, enthusiastic, $\alpha = .85$) and negative (e.g., distressed, nervous, $\alpha = .79$) emotions.

Results

Unless otherwise indicated, all analyses were conducted with 2 (Power: high vs. low) X 2 (Legitimacy of Power: legitimate vs. illegitimate) between-participants ANOVAs.

Manipulation checks. All participants correctly identified the role they were assigned to (*director* or *worker*). On the item enquiring who would have more power in the task (1=Director to 9=Worker), the ANOVA revealed no effect of legitimacy, F (1, 101) = 2.76, p = .100, $\eta^2 = .024$, but it revealed a significant effect of power, F (1, 101) = 5.57, p = .020, η^2 = .049, and a significant interaction between these factors, F (1, 101) = 4.04, p = .047, η^2 = .036. Consistent with the manipulation, in all conditions participants thought directors had more power than workers (i.e., scores were below the scale mid-point). However, high-power participants reported that Directors had relatively more power when power was illegitimate (M = 2.08, SD = 1.13) rather than legitimate (M = 2.88, SD = 1.68), F (1, 104) = 6.45, p = .013, $\eta^2_p = .059$. When power was legitimate, low-power participants thought Directors had relatively more power **(**M = 1.92, SD = .63), than did high-power participants (M = 2.88, SD = 1.68), F (1, 104) = 9.38, p = .003, $\eta^2_p = .083$. No other simple effects were significant, Fs < .07, ps > .797, $\eta^2_p < .001$.

The manipulation check of legitimacy revealed that this manipulation was successful. Participants perceived their position to be fairer in the legitimate (M = 6.86, SD = 1.37) than in the illegitimate conditions (M = 5.76, SD = 1.61), F (1, 101) = 13.84, $p < .001$, $\eta^2 = .118$. The main effect of power, F (1, 101) = 2.01, p = .160, $\eta^2 = .017$, and the interaction, F (1, 101) = .03, p = .868, $\eta^2 < .001$, were not significant.

Power-seeking behaviour. As in Experiment 3, the extent to which participants selected the more versus the less impressive chair was analysed with binomial logistic

regression with power, legitimacy, and the power by legitimacy interaction term as predictor variables. The main effects of power, *Exp*(B) = 1.53, *Wald*(1) = 1.17, p = .279, and of legitimacy, *Exp*(B) = .70, *Wald*(1) = .80, p = .371, were not significant. However, we found a significant interaction between power and legitimacy: *Exp*(B) = .02, *Wald*(1) = 21.08, p < .001. Simple effects were analysed with the MODPROBE macro (Hayes & Matthes, 2009). This revealed significant effects of power in the legitimate, b = 2.70, SE = .70, Z = 3.86, p < .001, and illegitimate conditions, b = -1.50, SE = .59, Z = -2.55, p = .011, but these effects were in opposite directions. Replicating Experiment 3, in the legitimate condition, powerful participants were more likely to choose the most impressive chair than powerless participants. Conversely, and again replicating Experiment 3, in the illegitimate condition powerless participants were more likely to choose the most impressive chair than powerful participants. In addition, analyses also revealed significant effects of legitimacy in the high-power condition, b = 1.63, SE = .60, Z = 2.70, p = .007, and in the low-power condition, b = -2.57, SE = .69, Z = - 3.74, p < .001, but again in opposite directions. As in Experiment 3, powerful participants were more likely to choose the least impressive chair when their position was illegitimate than when their position was legitimate. In contrast, and new to Experiment 4, powerless participants were more likely to choose the most impressive chair when their position was illegitimate than when their position was legitimate (see Table 4.4).

Table 4.4

Frequency of Chair Selection per Experimental Condition, in Experiments 3 and 4

		High Power		Low Power	
		Legitimate	Illegitimate	Legitimate	Illegitimate
Exp 3	High Power Chair	13	7	9	14
	Low Power Chair	8	18	16	10
Exp 4	High Power Chair	19	9	4	19
	Low Power Chair	7	17	22	8

Physical distance. The ANOVA revealed a reliable interaction between power and legitimacy, F (1, 101) = 8.36, p = .005, η^2 =.083. The effects of power, F (1, 101) = .35, p = .554, η^2 = .003, and of legitimacy, F (1, 101) = .19, p = .668, η^2 = .002, were non-significant. Simple effects revealed that, as in Experiment 3, when power was legitimate, high- and low-power participants placed the chairs at a similar distance from one another (respectively, M = 115.27, SD = 15.86; M = 107.80, SD = 18.36), F (1, 104) = 2.51, p = .116, η^2_p = .024. However, replicating Experiment 3, when power was illegitimate, powerless participants placed the chairs further apart (M = 118.60, SD = 16.21) than powerful participants (M = 107.27, SD = 16.10), F (1, 104) = 6.11, p = .015, η^2_p = .056. In addition, simple effects showed that powerful participants tended to place the chairs closer to each other when their power was illegitimate than when it was legitimate, F (1, 104) = 2.89, p = .092, η^2_p = .027—an effect that was also suggested but not significant in Experiment 3. Powerless participants, on the other hand, placed the chairs further apart when their power was illegitimate than

when it was legitimate, F (1, 104) = 5.53, p = .021, η^2_p = .051, replicating the effect found in Experiment 3 (see Table 4.5).

Table 4.5

Means and Standard Deviations for Distance between Chairs, as a Function of Power and of Legitimacy in Experiments 3 and 4

	High Power				Low Power			
	Legitimate		Illegitimate		Legitimate		Illegitimate	
	M	(*SD*)	*M*	(*SD*)	*M*	(*SD*)	*M*	(*SD*)
Exp 3	123.02a	(26.54)	111.08a	(24.23)	113.84a	(25.54)	128.96b	(37.54)
Exp 4	115.27a	(15.86)	107.27b	(16.10)	107.80a	(18.36)	118.60c	(16.21)

Desired impressions. The extent to which participants desired to be seen as competent, friendly, and moral by their interaction partner was analysed with separate ANOVAs.

Friendly. An ANOVA revealed no effect of legitimacy, F (1, 101) = 1.65, p = .202, η^2 = .015, a marginally significant main effect of power, F (1, 101) = 3.57, p = .062, η^2 = .032, and a significant interaction between these factors, F (1, 101) = 6.22, p = .014, η^2 = .055 (see Table 4.6). Simple effects revealed that when power was legitimate, high- and low-power participants rated appearing friendly as equally important (respectively, M = 7.77, SD = 1.34; M = 7.92, SD = 1.09), F (1, 104) = .17, p = .684, η^2_p = .002. However, when power was illegitimate, powerful participants awarded more importance to being seen as friendly by their interaction partner (M = 8.08, SD = .77) than did powerless participants (M = 6.96, SD = 1.76), F (1, 104) = 9.82, p = .002, η^2_p = .087. In addition, whereas powerful participants valued friendliness equally irrespective of how legitimate they thought their power was, F (1,

104) = .67, p = .416, η^2_p = .006, for powerless participants friendliness was less important when power was illegitimate than when power was legitimate, F (1, 104) = 7.18, p = .009, η^2_p = .065.

Moral. An ANOVA revealed that the effects of power, F (1, 101) = .30, p = .586, η^2 = .003, of legitimacy, F (1, 101) = .11, p = .745, η^2 = .001, and the interaction, F (1, 101) = 2.06, p = .154, η^2 = .020, were not significant. Overall, and compared to the mid-point of the scale (5), participants thought it was important to be seen as a good person (M = 7.17, SD = 1.78), t (104) = 12.47, p < .001.

Competent. An ANOVA revealed a marginally significant main effect of power, F (1, 101) = 3.68, p = .058, η^2 = .035. Powerless participants tended to give more importance to being seen as competent (M = 7.74, SD = 1.13) than powerful participants (M = 7.23, SD = 1.52). The effect of legitimacy, F (1, 101) = .02, p = .899, η^2 < .001, and the interaction, F (1, 101) = .03, p = .869, η^2 < .001, were not significant.

Relative importance of being liked vs. respected. The ANOVA revealed a reliable interaction between power and legitimacy (see Table 4.6), F (1, 101) = 4.01, p = .048, η^2 = .037. The main effects of power, F (1, 101) = 1.94, p = .166, η^2 = .018, and of legitimacy, F (1, 101) = .38, p = .537, η^2 = .004, were not significant. Simple effects revealed that when power was illegitimate, powerful participants indicated a greater wish to be liked (versus respected) (M = 4.92, SD = 1.29), compared to powerless participants (M = 4.14, SD = 1.27), F (1, 104) = 5.95, p = .016, η^2_p = .055. In fact, when power was illegitimate, while powerful participants scored at the mid-point on this measure, t (25) = -.30, p = .76, expressing an equal wish to be liked and to be respected, powerless participants scored below the mid-point, t (26) = -3.53, p = .002, expressing a greater wish to be respected than to be liked. However, when power was legitimate, no significant differences were found between high- and low-power participants (respectively, M = 4.60, SD = .84; M = 4.74, SD = 1.28), F (1, 104) = .18,

p = .676, η^2_p = .001. Simple effects also showed that powerless participants tended to place greater value on being respected (versus liked) when their power position was illegitimate than when it was legitimate, in which case they expressed a wish to be liked and respected to a similar extent, F (1, 104) = 3.51, p = .064, η^2_p = .033. Legitimately and illegitimately powerful participants on the other hand, did not differ significantly in their preferences to be liked versus respected, F (1, 104) = .92, p = .341, η^2_p = .009. To summarise, illegitimately powerless participants expressed a stronger desire to be respected (versus liked) than participants in any other condition.

Table 4.6

Means and Standard Deviations for Friendliness and Relative Importance of Being Liked vs. Respected, as a Function of Power and Legitimacy

	High Power				Low Power			
	Legitimate		Illegitimate		Legitimate		Illegitimate	
	M	(*SD*)	*M*	(*SD*)	*M*	(*SD*)	*M*	(*SD*)
Friendliness	7.77a	(1.34)	8.08a	(.77)	7.92a	(1.09)	6.96b	(1.76)
Liked (vs. Respected)	4.60a	(.84)	4.92a	(1.29)	4.74a	(1.28)	4.14b	(1.27)

Note. Friendliness was measured on 9 point unipolar Likert-type scales. Relative importance of being liked (vs. respected) was measured on a 9-point bipolar Likert-type scale, with higher scores reflecting greater importance of being liked.

Mediation analyses. Past work suggests that individuals employ different behavioural strategies depending on whether their goal is to be liked or to be respected. For example, individuals seeking respect are more prone to engage in self-promotion and to

appear competent to others (Jones & Pittman, 1982; Rudman, 1998), whereas those aiming to be liked are more willing to engage in intimacy-related behaviour, such us attempting to form social ties by seeking physical proximity and leaning forward (e.g., Festinger et al., 1950; Floyd & Burgoon, 1999; Scherer & Schiff, 1973; Schlenker, 1980). There is thus reason to believe that the extent to which participants want to be liked vs. respected might mediate the effects of power and legitimacy on the behavioural measures (chair selection and distance between chairs).

The analyses above show that desire to be seen as friendly, and desire to be liked versus respected, displayed an interactive pattern that paralleled those observed on seat selection and distance. As such, both these impression management goals were plausible mediators of behaviour. However, inspection of correlations between these and the behaviour measures (see Table 4.7) revealed that only the relative importance of being liked (vs. respected) was significantly negatively correlated with distance between chairs (r = -.26, p < .001), but not with chair selection (r = .12, p = .23). Chair selection was not correlated with either impression management goal. We therefore tested whether the extent to which participants wanted to be liked (vs. respected) mediated the effects of power and legitimacy on their seating distance by conducting mediated moderation analyses via PROCESS Model 8 (Hayes, 2013). These analyses followed bootstrapping procedures—a method that is not dependent upon a normal sampling distribution (see Preacher & Hayes, 2004; Shrout & Bolger, 2002), and generated 5000 random bootstrap samples with replacement from our initial sample set (N = 105). Our mediated moderation model was thus tested with these samples.

Analyses revealed the expected power X legitimacy interaction effect on the relative importance of being liked (vs. respected), and that distance between chairs was significantly predicted by the relative importance of being liked (vs. respected), t (100) = -2.13, p = .036.

Moreover, this analysis revealed that the conditional indirect effect of the power X legitimacy interaction on distance between chairs was positive and different from zero, *b* = 2.45, *SE* = 1.91 with a 95% BC (bias-corrected; see Efron, 1987) bootstrap confidence interval of .03 to 7.94 [the direct effect of the power X legitimacy interaction when controlling for the relative importance of being liked (vs. respected): *t* (100) = 2.49, *p* = .015, 95% CIs = .21 & 7.64]. Analysis of the pathways between power (IV) and distance between chairs (DV) via the relative importance of being liked (vs. respected) indicated that this indirect path was significant when power was illegitimate (CIs = .28 & 5.98), but not when power was legitimate (CIs = -2.93 & 1.08). Accordingly, under conditions of illegitimacy, low-power participants placed their chair further away from their (powerful) interaction partner than did powerful participants (in relation to their powerless interaction partner) because powerless participants placed less importance on being liked versus respected under these conditions. Looked at differently, the indirect path between the legitimacy of power (IV) and chair distance (DV) via the relative importance of being liked (vs. respected) was significant when power was low (CIs = .01 & 5.30), but not when power was high (CIs = -3.74 & .46). Accordingly, low-power participants sat further away from their powerful interaction partner under conditions of illegitimacy than legitimacy because, when power was illegitimate, powerless participants placed less importance on being liked than on being respected. These indirect paths combine to show that low-power participants had different impression management goals in legitimate and illegitimate conditions—with the goal of being respected heightened when power was illegitimate—and that these goals related to their seating behaviour (if not seat choice).

Table 4.7

Correlations Between Friendliness, Competence, Morality, Relative Importance of Being Liked (vs. Respected), Negative Affect, Chair Selection, and Distance between Chairs in Experiment 4

	1	2	3	4	5	6	7
1. Friendliness	-						
2. Competence	.12	-					
3. Morality	.59**	.25**	-				
4. Respected vs. Liked	.40**	-.30**	.20*	-			
5. Negative Affect	-.03	-.18	-.01	.008	-		
6. Chair Selection	.15	.03	.18	.12	-.006	-	
7. Distance between Chairs	-.11	.11	-.08	-.25**	-.05	-.11	-

** $p < .005$, * $p < .05$

Ancillary measures.

Perceptions of change. An ANOVA revealed a significant main effect of power, F (1, 101) = 5.01, p = .027, η^2 = .046, a marginal effect of legitimacy, F (1, 101) = 2.87, p = .093, η^2 = .026, and no interaction between these factors, F (1, 101) = .17, p = .683, η^2 = .002. As expected, participants in the illegitimate conditions tended to think their position is more likely to change (M = 3.04, SD = 1.41) than participants in the legitimate conditions (M = 2.62, SD = 1.14). However, and different from Experiment 1, powerless participants perceived their position as more changeable (M = 3.11, SD = 1.36) than powerful participants (M = 2.55, SD = 1.17).

Emotions.

Positive emotions. A marginally significant main effect of power was found, F (1, 99) = 2.86, p = .094, η^2 = .027. Powerful participants tended to express more positive emotions

(M = 6.16, SD = 1.02) than powerless participants (M = 5.83, SD = 1.00). The effect of legitimacy, F (1, 99) = 2.73, p = .102, η^2 = .026, and the interaction, F (1, 99) = 1.32, p = .253, η^2 = .012, were not significant.

Negative emotions. The effects of power, F (1, 99) = 1.06, p = .306, η^2 = .010, and of legitimacy, F (1, 99) = .82, p = .369, η^2 = .008, were not significant. The interaction was marginally significant, F (1, 99) = 3.38, p = .069, η^2 = .032. Simple effects revealed that when power was legitimate, high- and low-power participants expressed similar levels of negative emotions (respectively, M = 2.29, SD = .91; M = 2.14, SD = .9), F (1, 99) = .34, p = .562, η^2_p = .003. However, when power was illegitimate, low-power participants expressed more negative emotions (M = 2.65, SD = 1.02) than high-power participants (M = 2.12, SD = .87), F (1, 99) = 4.32, p = .040, η^2_p = .041. In addition, high-power participants expressed similar levels of negative emotions, irrespective of legitimacy of power, F (1, 99) = .45, p = .503, η^2_p = .004, whereas powerless participants expressed more negative emotions when power was illegitimate than when power was legitimate, F (1, 99) = 3.94, p = .050, η^2_p = .038. Negative emotion was not, however, correlated with seat choice or seating distance (Table 4.7) and did not explain the effects observed on these.

Discussion

The results of Experiment 4 replicate and extend the findings of Experiment 3. Again, the results show that powerful and powerless participants' seat choice mirrored their power positions but only when power was legitimate. This was again reversed when power was illegitimate. That is, when power was illegitimate, as in Experiment 3, powerful participants were more likely to concede power by choosing the least impressive instead of the most impressive chair. New to Experiment 4, we found that legitimacy of power also reliably affected powerless participants' choice of chair. That is, illegitimacy (vs. legitimacy) of power also reversed seat selection for powerless participants. Specifically, when power was

illegitimate, powerless participants selected for themselves the most impressive chair, leaving the least impressive chair for their illegitimately powerful partner. Although Experiment 3 already suggested this behavioural pattern for the powerless, it failed to achieve the traditional level of significance. However, by making it salient in Experiment 4 that seat choice was unrelated to participants' role as Directors or Workers, powerless participants had the chance to be less focussed on what they thought were the task requirements and their responsibilities as Workers and, instead, be more responsive to the manipulation of legitimacy and to their feelings towards their interaction partner.

Also replicating Experiment 3, participant's physical distance from their interaction partner was also modified by perceptions of legitimacy of power. As in Experiment 3, legitimacy affected powerless participants’ physical distance from their partner, so that powerless participants who perceived their power to be illegitimate chose greater physical distance from their powerful interaction partner than participants in the legitimate conditions. A marginally significant tendency was found for powerful participants to seek closeness to their interaction partner.

Experiment 4 additionally provides insights into the psychological mechanisms that might be responsible for these effects. Specifically, the results of this study allow us to establish that participants' desire for physical distance (but not seat choice) is linked to their impression management goals. The results show that powerless participants (but not powerful participants) had different impression management goals in legitimate and in illegitimate conditions regarding their wish to be liked (vs. respected). Accordingly, for powerless participants it was less important to be liked (vs. respected) by their interaction partner when power was illegitimate (vs. legitimate). Importantly, results also show that powerless participants' goal to be respected related to the increased physical distance to their interaction partner, in this very same condition of illegitimacy (vs. when power was legitimate). This

suggests that powerless individuals strategically adjust their behaviour (i.e., the distance that they want to keep from their powerful partners) such that it meets their social interaction goals—in this case, to be respected. Importantly, this also supports the idea that the power-related behaviour examined in these studies stems, at least in part, from self-focused motivations (such as the goal to be seen by others in desired ways), rather than merely from the motivation to affect the others' position. However, it is important to note that impression management goals did not mediate chair selection. This might be because chair selection was indeed affected both by self-focused concerns and by the desire to either grant or remove power from the interaction partner. Alternatively, this might be due to the fact that the measure of social distance offers more variability (i.e., a greater range of responses), whereas chair selection is a dichotomous measure and, therefore, less variable, which might render a meditation via impression management goals harder to detect.

Regarding the possibility that participants' power-related behaviour was driven by how they experienced power rather than by the goals they had for the social interaction, our manipulation check of power revealed that low-power participants thought power holders had more power than powerless participants in both conditions of legitimacy. This supports our argument that the effect of legitimacy on powerless participants' behaviour was not guided by their feelings of power. In contrast, high-power participants thought they had more power when power was illegitimate than when it was legitimate. However, this did not translate into their behaviour as they enacted less power when their position was illegitimate—which corresponds to the condition in which they thought they had more power—than when it was legitimate. Instead, the selection of the less impressive chair might suggest a defensive reaction to the possibility of power change that is associated with illegitimate (but not legitimate) power structures and, thus, further supports our argument that high-power participants' responses were aimed at maintaining power.

Whereas the powerless used physical distance to communicate their motivation to achieve respect and power, our data does not suggest that power holders used physical closeness to communicate their impression management goals. Results showed that power holders wanted to be seen by their interaction partner as friendly, moral, competent, and wanted to be liked to the same extent as they wanted to be respected, irrespective of legitimacy. This might be due to the fact that the task given to power holders was to perform the role of Director, which they may have associated with morality, sociability, and competence (Cuddy, Glick, & Beninger, 2011) in both conditions of legitimacy. Since powerful individuals deploy attention more selectively and seek information that is particularly relevant to their goals and needs (Guinote, 2007b, 2010), it is possible that when power was illegitimate they were not only sensitive to the situational clues of illegitimacy but also to the alleged purposes of the experiment, that is, to their role as Directors. Therefore, power holders might have had two concurrently activated goals when there was an impending threat to their power (that is, when power was illegitimate)—to perform well as Director but also to keep that privileged position—and only the goal of being a good Director when their power was legitimate and secure. Consequently, power holders awarded great importance to the dimensions that they might have associated with the role of Director (morality, sociability, and competence) when power was legitimate and when it was illegitimate, but behaved differently in these two conditions because illegitimate (but not legitimate) power structures might have threatened the deservingness of their superiority, which they were motivated to protect and maintain.

Our ancillary measures revealed that, as expected, illegitimacy increased perceptions of the likelihood of change, which confirms that illegitimate power structures tend to be perceived as less secure. Powerless participants also perceived their position to be more changeable than the powerful, which is different from what we found in Experiment 3.

Furthermore, whereas powerful participants expressed overall more positive emotions, the powerless expressed more negative emotions when power was illegitimate relative when power was legitimate. These results appear to be consistent with the behaviour displayed by the powerless, but they do not provide much insight into the behaviour of the powerful. Also, these measures are uncorrelated to the behavioural measures. As such, emotional processes or expectations about change do not seem sufficient to explain the behavioural choices of both low and high-power people under different conditions of legitimacy.

General Discussion

People intuitively tend to believe that one's power (or lack of it) magnifies the expression of power-related behaviour. Those with power are normally expected to actively demonstrate their power to others whereas those who lack power are often expected to behave in ways that show subordination and acceptance of their powerlessness. Social psychological research, however, has suggested that this expected behaviour does not always occur: Powerless individuals are sometimes willing to object to the powerful (e.g., Van Zomeren & Iyer, 2009; Van Zomeren & Klandermans, 2011); and the powerful can be reluctant to show their power and might even consider concessions to the powerless (e.g., Chow et al., 2013; Goff et al., 2013; Lammers et al., 2008). With this research, we propose that the legitimacy of power structures (i.e., how legitimate individuals perceive their relative social position to be) provides insight into when the powerless and the powerful behave in ways that mirror their power positions, and when individual behavioural choices differ from one's current power. Specifically, we propose and demonstrate that individuals behave in a manner that reflects their current high and low power when social structures are legitimate, but this reverses for the powerless when power structures are illegitimate. Given that past research suggests that the powerful can employ various behavioural strategies (inhibition, authoritarian protection of power, or concessions to the powerless) when responding to

illegitimate power, we did not make specific predictions about which of these behaviour strategies would be adopted by the powerful in this condition of illegitimacy.

Two studies supported our hypotheses in relation to legitimate power conditions and in relation to the powerless, and demonstrated how the powerful are likely to respond to illegitimate power in relational settings. Relative to when power was legitimate, when it was illegitimate the powerful were less likely to behaviourally signal their power (Experiments 3 and 4) and tended to seek closeness to their powerless interaction partner (Experiment 4). Conversely, when power was illegitimate, powerless individuals were more likely to behaviourally seek power (Experiment 4) and physical distance from their powerful interaction partner (Experiments 3 and 4). Clarifying these behavioural patterns, our findings indicated that the illegitimately powerless increased physical distance from their powerful interaction partner because they were driven by specific impression management goals: They wanted to be more respected than liked and communicated this desire through their behaviour (Experiment 4). This research therefore extends past work in at least two major ways: it demonstrates that perceptions of legitimacy moderate power-related behaviour, and it shows that behaviour can be used strategically to communicate individual goals during social interactions.

Perceptions of Legitimacy Moderate Power-Related Behaviour

The present research shows that the link between power and power-related behaviour is not invariant but rather it can be modified by the perceived legitimacy of power structures. Importantly, we go beyond past research by examining powerful and powerless individuals' actual behaviour, rather than behavioural intentions, as they respond to the possibility of power change that is embedded in illegitimate hierarchies. Furthermore, the current research suggests that these behavioural choices might be more strategic than previously expected, in

that perceptions of legitimacy also moderate individual's goals during social interactions which, in turn, predict their behaviour.

The studies presented here seem to be consistent with our previous chapter examining motivations, and with previous work on the same topic (e.g., Keltner et al., 2003; Lammers et al., 2008). The possibility of power change that surrounds illegitimate social structures reverses the approach and avoidance motivations that are experienced by powerless and powerful individuals, relative to when social structures are legitimate. Because illegitimacy signals an opportunity to change current low social standing, the powerless become more attuned to the possibility of moving up in the social structure, and approach power and respect. Consequently, they are more likely to engage in approach-related behaviour when power is illegitimate (vs. legitimate). For example, they approach respect by claiming external clues of power, such as impressive chairs, and by emulating behaviour that is typically associated with power holders, such as being more distant (e.g., Glick & Fiske, 2001,b; Maddux et al., 2008).

In contrast, illegitimately powerful individuals perceive a threat to their current privileged positions and become more avoidant because they want to secure their power (e.g., Ellemers et al., 1990; Tajfel & Turner, 1979). Past research has shown that this avoidance can manifest in a variety of ways, such as authoritarianism, appeasement, and inhibition (e.g., Chow et al., 2013; Goff et al, 2013; Lammers et al., 2008; Reicher & Haslam, 2006). Interestingly, our findings seem to indicate that powerful individuals respond to illegitimate power by stepping down from their power positions and, thus, potentially engaging in appeasement-related behaviour. Although we did not find significant differences regarding the effect of legitimacy on the goals power holders had for the interaction, making concessions to the powerless (such as conceding impressive chairs) and seeking physical closeness might be indicative of a desire for a positive relation, in which comfortable and

intimate interactions are customary (e.g., Geisen & McLaren, 1976; Festinger et al., 1950). These behavioural choices, although positive on the surface, might be designed to reduce and prevent the potential threat of power change such that existing hierarchies are maintained.

Behaviour as a Tool to Communicate Individual Goals During Social Interactions

Past research has shown that power tends to lead to particular behavioural patterns: Power increases expansive gestures, the amount of times that people speak, and even the maintenance of eye contact (e.g., Dittmann, 1972; Dovidio & Ellyson, 1985; Hall et al., 2005). Others have shown that power differences in behaviour are actually able to guide people's sense of power (Carney, Cuddy, & Yap, 2010; Chen et al., 2001). Extending this work, the current research shows that power-signalling behaviours can not only reflect existing power relations, but actually serve to communicate desired power relations. In addition, this work suggests that physical distance and power-signalling behaviour can also be used as vehicles to express one's intentions during social interactions. Because powerless individuals wish to be respected by the powerful and to move up in the power structure when this is illegitimate, they adjust their behaviour accordingly by claiming external clues of power and seeking physical distance from the powerful, which is the type of behaviour that best embodies power in that context. In contrast, by conceding the impressive chair and pursuing physical closeness, power holders might communicate their desire for a positive interaction by stepping down from their power position while expecting to ameliorate the responses of the powerless to undeserved positions and, thus, to keep their social advantage.

Alternatively, physical distance can also be reflective of attempts to avoid conflict. Because illegitimate hierarchies are expected to be characterized by conflict between those seeking to change their undeserved low power and those seeking to maintain their undeserved high power, both powerful and powerless individuals might use physical distance to avoid conflicting interactions. However, they might do so in opposed ways because they also hold

different goals relative to social interactions. It is indeed known that conflict can be avoided by employing contrasting behavioural responses, for example, powerful and powerless individuals often avoid conflict by adopting complementary power postures (Tiedens & Fragale, 2003). Anticipating that claiming power and respect might result in conflict with the powerful, powerless individuals might communicate their desire to avoid conflicting interactions by increasing physical distance. Conversely, power holders might avoid conflict by seeking closeness so as to express their desire for a non-abrasive interaction with the powerless.

Future Directions

One particularly interesting finding in this chapter is that power holders can behave in a more positive and benevolent fashion with their subordinates when their power can be questioned—i.e., when it is illegitimate. This might emerge for different reasons. The responsibility that power holders feel they have towards the powerless might shape their behavioural choices. For example, there is evidence that power can be interpreted as granting a sense of responsibility for subordinates (Sassenberg, Ellemers, & Scheepers, 2012) and a greater sense of responsibility render power holders more considerate when forming impressions of their subordinates and more generous towards them (e.g., Chen et al., 2001; Overbeck & Park, 2001). This is important because it shows that a sense of responsibility towards subordinates might determine the way power holders respond to threat and, perhaps, even how threat itself is perceived. For instance, it is possible that perceiving power as a responsibility towards others rather than an opportunity for the self, renders powerful individuals more avoidant of power positions (Sassenberg et al., 2012). Consequently, power holders might disengage (to some extent) from their power roles, and display more genuine concerns for the powerless because the latter do not represent threat when power positions are unwanted. On the other hand, power holders' intentions to promote, at least superficially, a

positive rather than a negative interaction with their powerless interaction partner can also demonstrate that exerting authority or oppressing the powerless (i.e., by stereotyping and discriminating) might not always be the favoured responses to power threats. Rather, power holders can attempt to maintain social structures by engaging in behaviour that is perceived to be more positive and benign, not necessarily because power holders feel particularly responsible for the powerless but because this might be perceived as a more successful way to keep power while avoiding conflict. Future research should examine whether positive relations established between powerful and powerless individuals and groups is driven by genuine concerns or by more self-serving goals to reinforce/change power structures while avoiding conflict, and whether a sense of responsibility (and how it is perceived) impacts on this positive behaviour.

Although it was not within the scope of this PhD to examine what conditions render the powerful more likely to favour benevolent (such as appeasement and concessions of power) or aggressive (such as assertive displays of power) behavioural strategies when responding to power threat, future research could address this question and, perhaps, find new venues for research in the work presented here. A closer inspection of our method and findings might help understand when which behavioural of these strategies is likely to be employed by power holders. On the one hand, the participants that took part in the experiments reported in this chapter were mostly female participants. Past research has shown that relative to men, women are more likely to express affiliative social behaviour in response to stress, such as befriending an enemy (e.g., Taylor, Klein, Lewis, Gruenewald, Gurung, & Updegraff, 2000), and are more likely to engage in benevolent strategies to gain compliance, such as being ingratiating or charming (e.g., Carli, 1991, 1999; Falbo, 1982; Falbo & Peplau, 1980). In line with this work, our findings might suggest that, when responding to illegitimate power structures, compared to men, women might also

preferentially adopt behavioural strategies that are more benevolent and pro-social (such as appeasing the powerless), rather than confrontational. Thus, had our sample been less female dominated we might have found more confrontational responses—and had we secured a sufficient number of male and female participants we might have found gender to moderate these behavioural patterns. Another aspect of the procedure that might be responsible for these relatively responses is that although participants perceived illegitimate power conditions as more illegitimate and unfair than legitimate ones, they did not perceive strong illegitimacy in these conditions. It is possible that when illegitimacy is extreme, power threat might seem more imminent and, consequently, power holders' responses become less strategic and more emotionally-driven (e.g., Haslam, 2004). That is, when illegitimacy is strong, the powerful might be more prone to "fighting back" rather than engaging in appeasement-related strategies.

Another possible limitation of the experimental procedure used in the two studies reported in this chapter relates to the method used to assign of participants to high- and low-power roles. Even though the description of these positions clearly established differences in power between "Directors" and "Workers", it also provided a brief explanation of what it meant to be a Director and a Worker. Specifically, Directors and Workers were described to be good in doing different things: Directors at evaluating solutions and looking at the big picture; Workers at generating solutions and putting them into practice. Thus, powerless participants might have perceived that, even though they were in a subordinate position, and had no control over others (which complies with the definition of social power), they at least had some control over their own outcomes. As explained earlier in this thesis, our focus is on social power, not on perceived control, as such. This means that, even if powerless participants felt more 'in control' than intended, they still had no control over others, whereas powerful participants did. Nevertheless, one might suggest that this does not reflect typical

situations of powerlessness, where individuals often do not have control over their own outcomes either. As such, we should be tentative when generalizing these findings to other, perhaps more traditional, interpersonal power contexts. In any case, this is a speculative explanation that future research should put to test.

Future research could also investigate what sort of behavioural strategies are employed when the powerful-powerless interaction can actually be conflicting, for example, when the perception of the legitimacy of power structures is rather contradictory. When the powerless perceive social structures to be illegitimate, but the powerful perceive them to be legitimate, both parties might be motivated to signal and claim power. The question that remains is which party is willing to make concessions and step down from their pursuit of power? Perhaps conflicting interactions are more prone to trigger authoritarian displays of power by the powerful, only to be met with great resistance by the powerless.

In conclusion, in this chapter we provide further evidence that the role of the perceived legitimacy of social hierarchies is crucial in shaping how individuals perceive power relations, in determining what they expect from social interactions and, ultimately, how they behaviourally respond to their power positions. We believe that the insights gained from this examination challenge extant research that suggests a fairly linear link between power and its produced behaviour by successfully showing when and why people might behave in ways that can contradict their present power. Thus, this work illustrates how the social world is a continuously negotiated reality between those who seek to maintain their superiority and those who seek an alternative version of society and, importantly, how the expectations they hold during social interactions (and how they communicate these desires) shape their behaviour when creating and defining power relations.

Chapter 5: The Effects of Legitimacy of Power and Social Dominance Orientation on Help Offering by Powerful Group Members and by Third Party Observers

Social psychological research has demonstrated that power structures can be maintained when powerful groups exert their authority and the powerless obey, or otherwise internalize, their disadvantage (e.g., Fiske, 1993; Goodwin, Gubin, Fiske, & Yzerbyt, 2000). However, as suggested by the previous chapter in this thesis, power holders can also manage threats to their power by behaving in a positive and appeasing fashion (e.g., by stepping down from their power position and by seeking closeness to the powerless). Although some of these behaviours might be motivated by a genuine desire to concede power, seemingly positive behaviours could also be motivated by a desire to protect and maintain power. Indeed, previous work suggests that when attempting to maintain social hierarchies, advantaged group members can strategically engage in more benevolent and positive intergroup behaviour. For example, advantaged group members have been shown to downplay the existence of conflict with another (less advantaged) group, especially when the advantaged seek to improve their group status (Livingstone, Sweetman, Bracht, & Haslam, 2015). Research has also shown that advantaged group members can strategically use situations of intergroup contact in ways that helps them legitimize power disparities by focusing on what they share with powerless groups, rather than on intergroup power disparities (Saguy, Dovidio, & Pratto, 2008). Emphasizing commonalities can promote a shared identity between groups and, thus, booster positive relations between them, but it can also strategically cloak group-based identities and privileges (Dovidio, Gaertner, Niemann, & Snider, 2001; Ruscher, 2001; Saguy et al., 2008).

With respect to actual behaviour, past work has also shown that advantaged group members can strategically engage in actions that are outwardly benign (e.g., Jackman, 1994), such as providing help (Nadler, 2002; Nadler & Halabi, 2006), particularly when such

positive behaviour perpetuates power structures. Research in this area has established that members of powerful groups are inclined to offer dependency- (rather than autonomy-) oriented assistance to less advantaged groups, and has linked this to individual and collective motivations to maintain intergroup differentiation (Nadler, Harpaz-Gorodeisky, & Ben-David, 2009). However, the interplay between these individual and collective motives for help offering has yet to be fully examined. This is in part because past research in this area has mainly focused on the perspective of those who are invested in the power hierarchy—i.e., the powerful—leaving unanswered questions about the motivations behind intergroup helping when concerns around group power are not active. In this chapter, our goal is thus to advance knowledge of the motivations underlying helping behaviour by examining the interplay between structural factors (the perceived legitimacy of power structures and an individual's own position in the power hierarchy) and individual tendencies (social dominance orientation) in shaping the willingness to help the powerless.

Outgroup Helping: A Strategic Tool to Reinforce Power Structures

Past research has demonstrated that helping behaviour is driven by various factors, for example, by empathy, by a desire for positive self-regard, by the fact that helping others makes people feel good about themselves, or by feelings of sympathy towards the disadvantaged (e.g., Batson, 1991; Harth, Kessler, & Leach, 2008; Iyer, Leach, & Crosby, 2003; Leach, Snider, & Iyer, 2002; Omoto & Snyder, 1995; Penner, Dovidio, Piliavin, & Schroeder, 2005; Yinon & Landau, 1987). However, recent work has also suggested that the extent to which people provide help might also be motivated by the desire to maintain power relations and social advantage (e.g., Nadler, 2002; Nadler & Halabi, 2006; Nadler et al., 2009; Stürmer & Snyder, 2010; Stürmer, Snyder, Kropp, & Siem, 2006). For instance, it has been shown that individuals high in prejudice object to affirmative action policies (which constitute empowering forms of assistance) such that their in-group's social advantage is

maintained (Augustinos, Ahrnes, & Innes, 1994). Elaborating on these ideas, the intergroup helping as power relations model (IHPR - see Nadler, 2002; Nadler & Halabi, 2006) integrates aspects of social identity theory (Tajfel, 1978; Tajfel & Turner, 1979) with insights from research on helping relations (e.g., Nadler, 1997, 1998) and posits that offers of help are dependent on three major factors: The nature of help itself (dependency- vs. autonomy-related help), situational determinants (such as how groups are positioned in social hierarchies), and individual differences relevant to the perception of social hierarchies.

The nature of help: Dependency vs. autonomy-oriented help. Helping intentions and behaviour can be shaped by the nature of the help provided, that is, by its dependency or autonomy orientation (Nadler, 1997, 1998, 2002). Dependency-oriented help consists of providing a full solution to a problem—for example, fixing broken equipment on someone else's behalf. This form of help renders the recipient dependent on the helper, and thereby can reinforce existing power differentials between the parties involved. Because dependency-oriented help emphasizes the recipient's inferiority (Nadler, 2002), this type of help is likely to be favoured by individuals or group members who seek to secure their social advantage, while at the same time projecting a positive impression to others (i.e., being helpful). By contrast, autonomy-oriented help consists on providing the recipient with tools to solve problems on their own—for example, showing someone how to fix their broken equipment. This form of help circumvents dependency because it empowers the recipient to solve future problems by themselves (Nadler, 2002). Whereas the provision of dependency-oriented help (on its own) can be seen to signal the motivation to maintain power relations, autonomy-related help reflects a more genuinely other-focused concern with the wellbeing of those who are helped.

Situational determinants: Legitimacy of intergroup relations. Drawing on social identity theory (Tajfel & Turner, 1986), the IHPR model posits that features of the social

structure within which groups are embedded—that is, their permeability, legitimacy, and stability—shape group-member's motivations and thereby influence intergroup helping behaviour. Crucially, since stable and legitimate status differences tend to be accepted by both high- and low-status group members, the behaviour of advantaged group members in legitimate structures is less likely to be motivated by status protection motives than when structures are unstable or illegitimate (Ellemers, van Knippenberg, & Wilke, 1990; Ellemers, Wilke, & van Knippenberg, 1993; Scheepers, Spears, Doosje, & Manstead, 2006; see also Chapter 4 of this thesis). Consequently, when social structures are stable or legitimate, advantaged group members are expected to help the disadvantaged when help is needed and without being guided by concerns around the maintenance of power differences. Conversely, when social structures are unstable or illegitimate, concerns to maintain threatened power should guide the help offered by the powerful to the powerless. Indeed, providing help to the powerless might ultimately empower them and make them potential competitors to a superior power position, especially when the powerless might be motivated to overcome an undeserved disadvantaged position (that is, when power structures are deemed illegitimate). Thus, advantaged group members' interest to maintain their superior social standing might be better served when a potential for direct social competition with a powerless outgroup is minimized (Tajfel & Turner, 1979; see also Van Knippenberg, 1978, 1984). In the context of this chapter, strategically making the powerless dependent on the powerful (or limiting their possibility to be autonomous) might be the strategy that best serves the interests of advantaged group members. Since dependency-related help can reinforce the powerless group's dependency, powerful group members are likely to increase this form of help (and decrease autonomy-related help) when they perceive their power as illegitimate. These basic predictions have been supported with respect to helping behaviour in hierarchies defined by status differences (e.g., Harpaz-Gorodeisky & Nadler, 2008; Nadler et al., 2009). In the

present research we aim to complement this work by examining similar dynamics in the context of power relations between groups.

Individual differences: Social dominance orientation. Powerful groups members' willingness to provide help can also be influenced by individual inclinations to protect and enhance hierarchical inequalities. Social dominance orientation (SDO) is an ideological position that represents a desire for group-based dominance and social inequality (e.g., Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius & Pratto, 1999). Individuals with a dispositional need for stratified environments (that is, individuals high in SDO) are more inclined to think and act in ways that legitimize social inequalities and reinforce power hierarchies. By contrast, individuals low in SDO are more inclined to attenuate hierarchical differences and to engage in behaviour that reduces power disparities (e.g., Esses, Dovidio, Jackson, & Armstrong, 2001; Pratto & Lemieux, 2001; Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1996).

With respect to intergroup helping, given that helping behaviour can sometimes be used to maintain and enhance power inequalities, the strategic use of help—both whether help is offered, and what kind—might be particularly evident amongst power holders who are high in SDO. Consistent with this reasoning, Jackson and Esses (2000) showed that Canadian citizens who were high in SDO were less willing to offer assistance to immigrants, and to the extent that help was offered they were also less supportive of autonomy-related forms of help. Thus, it seems that individuals who are motivated to maintain systems of hierarchical differentiation are also prone to do so by withholding help from the powerless, or by limiting help to forms that encourage dependency or discourage autonomy.

How Situational and Individual Determinants Might Combine to Shape Intergroup Help

Research on intergroup helping so far suggests that help offers might vary depending on the presence of threats to the power position of potential helpers, on individual levels of SDO, and on the type of help under consideration. However, research examining how situational and individual factors combine to affect the extent and nature of intergroup help is scarce. Some previous work by Nadler and colleagues shows that intergroup help is jointly determined by situational threats to group status and individual differences in group identification (Nadler, 2002; Nadler et al., 2009). We thus aim to extend this knowledge by examining whether legitimacy of power and individual differences in SDO similarly affect intergroup helping. Since SDO motivates individuals to protect the status quo, we expect that its effects will be most pronounced when the status quo is threatened, that is, when power relations are illegitimate.

This same reasoning was also proposed and tested in a study by Halabi, Dovidio, and Nadler (2008), who only documented a negative effect of SDO on helping intentions. Although main and interactive effects of power threat on willingness to provide help were not significant, it was nonetheless apparent that the effect of SDO was amplified in the power threat condition. Accordingly, this work might suggest that status threat reduces willingness to provide help amongst high SDO individuals but not amongst those lower in SDO. When discussing the absence of a significant interaction between these factors, the authors acknowledge that, in their study, power threat was operationalized in terms of relative group status: High-status groups were assumed to experience a power threat, whereas low-status groups were not. As argued within social identity theory, however, high-status group members do not necessarily experience threat to their privileged position. Indeed, social identity theory proposes that the extent to which high-status group members experience a

threat to their position depends on other characteristics of the social structure, such as the perceived legitimacy of the group's relative positions. We thus argue that SDO is likely to affect helping by high-power group members more strongly when power is illegitimate than when it is legitimate.

Outgroup Helping by Third Party Observers

The second goal of this research is to better understand what motivates powerful groups members' helping intentions by comparing these to the intentions of external observers. Observers can also choose whether or not and when to provide help, to whom, and in what way. Observers might also share with members of powerful groups many motives to provide help (empathy, genuine care, cost-benefit considerations). Critically, however, observers are independent of the power structure that governs relations between the powerful and the powerless. Therefore, compared to powerful group members, observers are expected to be un-invested in, and independent of, the power structures that are external to them, which might limit their expectations about consolidating power in these hierarchies and, thus, limit the benefits that providing help might have to their own position in these structures. For this reason—and in contrast to help offered by the powerful—the help observers might provide does not reinforce their own power, at least not in the same way as help offered by the powerful to the powerless. Comparing the helping behaviour of third party observers and powerful group members can therefore shed light on the strategic and group-serving nature of powerful group members' intentions of help.

Third parties might provide help with the aim of protecting or reinforcing power relations, especially if they endorse specific status legitimizing ideologies, such as SDO (Sidanius & Pratto, 1999). Indeed, as suggested by the IHPR model, to the extent that individuals hold status legitimizing ideologies, they are less likely to engage in behaviours that might change the status quo (such as by increasing autonomy- while decreasing

dependency-related help) and more likely to engage in behaviours that reinforce the status quo (such as by increasing dependency-while decreasing autonomy-related help). However, the specific conditions under which such ideologically-driven help emerges among observers could be expected to differ from the conditions that guide help given by the powerful. For observers, SDO could be expected to determine the amount and kind of help offered, irrespective of the legitimacy of power differences (an issue that primarily concerns the powerful, rather than observers). On the other hand, it could also be expected that illegitimacy of the hierarchy might increase observers' tendencies to empathise with and act in the interests of the powerless, irrespective of their own levels of SDO. Indeed, when injustices are clear, this can over-ride tendencies to be guided by pre-existing beliefs when responding to inequality (Song Hing, Bobocel, & Zana, 2002). In comparison, when hierarchies are legitimate, observers might readily draw on existing beliefs to interpret and respond to these.

In sum, we suggest that observers, just like powerful group members, might vary in the ways in which they decide to help powerless groups. However, observers' helping behaviour is expected to contrast with the helping behaviour of the powerful in terms of precisely when it is used. Whereas powerful group members might try to reinforce their group's power position by providing more dependency-related help and less autonomy-related help especially when power structures are illegitimate, illegitimate power structures might motivate observers to restore social equality and the legitimacy that was lost by increasing their offers of help to powerless groups under such conditions (i.e., offering all forms of help to a higher degree). Further, whereas illegitimacy is expected to amplify the effect of SDO among the powerful because illegitimacy threatens their position in the social hierarchy, legitimacy is expected to amplify the effects of SDO among observers because,

unless unfairness is clear and explicit, observers might fall back on default ideological positions when interpreting and responding to groups to which they are unconnected.

The Present Research

We examined whether the extent and nature of intergroup help varies as function of the interplay between one's place in a power structure (observer vs. powerful), the legitimacy of power, and individual differences in SDO. Participants imagined a social setting in which two groups had different power that was established either by legitimate or by illegitimate means. In the first study, participants were third-party observers of the intergroup situation. In the second study, participants were either cast in the role of observers or as members of the powerful group. In both studies we asked participants about their willingness to provide dependency- and autonomy-related help to the low-power group, and measured their levels of SDO at the end of each study.

Our main interest was in the behaviour of powerful group members under different conditions of legitimacy. In line with the IHPR model, we hypothesized that when power structures are legitimate, the powerful are not concerned with the maintenance of power structures and are less likely to withdraw help from the powerless, irrespective of their SDO levels. However, when power structures are illegitimate, we expected that the powerful would generally be inclined to withdraw autonomy-related help, but not dependency-related help. Furthermore, we would expect the role of individual differences in SDO to become more active under conditions of illegitimate power: The powerful who are high in SDO were expected to be especially unwilling to offer autonomy-related help, although they might be willing to offer dependency-related help.

To provide further insight into the strategic, and group-serving, nature of powerful group member's helpful intentions, we felt it was important to compare these to an alternative group that was also in a position to help, but not implicated in the specific power hierarchy—

that is, third party observers. However, in the absence of literature regarding observers' intergroup helping behaviour, our reasoning for this group is largely exploratory. Nonetheless, we propose that when power structures are legitimate, observers are likely to behave in ways that reflect their SDO levels: Observers high in (vs. low) SDO would be more willing to offer dependency-related help and less willing to offer autonomy-related help to a powerless group. When power structures are illegitimate, observers are expected to help a powerless group in reversing the power distribution, irrespective of their SDO levels.

Given that little is known about helping offered by third parties, Experiment 5 began by examining the observer perspective only. Experiment 6 aimed to test the complete set of factors by including both observer and powerful perspectives.

Experiment 5

The aim of Experiment 5 is to examine whether third-party observers use helping relations in a strategic fashion, depending on their SDO and on perceptions of legitimacy of power relations. Vignettes were used to introduce a power structure and manipulate its legitimacy, and SDO was measured at the end of the study. We adapted previously used paradigms using scenarios involving extra-terrestrial beings (e.g., Castano & Giner-Sorolla, 2006; Dasgupta, Banaji, & Abelson, 1999) and established a power hierarchy between these groups. Using such scenarios allows us to achieve control over the experimental context in that perceptions will be guided merely by the information provided, since participants will have no other knowledge about the groups.

Method

Design and Participants. A total of 117 students at the University of Exeter (85 females, 32 males; $M_{\text{Age}} = 20.26$, $SD = 4.35$) completed an online questionnaire and were randomly allocated to one of two experimental conditions—they either read about a legitimate power structure or about an illegitimate power structure. Participants' social

dominance orientation was also assessed and used as a continuous predictor. The questionnaire took around 15 minutes to complete. Participants chose either to receive 0.5 course credits or to enter a lottery draw for two prizes of £20 (approximately 31.40 US Dollars).

Procedure. Participants were recruited via SONA Systems (Psychology Research Participation System at the University of Exeter). All the instructions, information, and questions were delivered via computer, through the Qualtrics online survey platform. Responses were automatically recorded by Qualtrics.

Participants read that the study aimed to collect opinions about an animation film that students at a local College (corresponding to last two years of high school) were ostensibly creating. Participants learned that the animation film was about two alien species (the Menkab and the Kochab) that found and colonized a deserted planet (Alari). They read that these two groups decided to set up a committee of representatives of both species to manage the planet and distribute resources. Both species agreed to count the total number of individuals of each species living in that planet, and the species with the largest population would be given more seats on the committee and gain control over Alari. In the legitimate condition, participants read that the Menkab totalled 7.660.900 inhabitants, whereas the Kochab totalled 4.900.006 inhabitants in Alari. As a consequence, the Menkab were awarded more seats on the committee and gained control over Alari. In the illegitimate condition, participants read that, to increase their number of residents in Alari, the Menkab decided to relocate a very large number of individuals from their original planet to Alari. As a consequence of this relocation, the Menkab now totalled 7.660.900 inhabitants, whereas the Kochab totalled 4.900.006 inhabitants. The Menkab thus gained control over the committee. That is, all participants read that the same species of aliens gained control over the committee but they did so either by legitimate or by illegitimate means.

After reading the scenario, participants completed the dependent measures in the order described below. At the end of the questionnaire, participants were thanked, debriefed, and either given 0.5 course credits or entered in a lottery draw (two participants were randomly selected to be awarded £20 each—approximately 31.40 US Dollars).

Measures. Participants completed the dependent measures in the order described below.

Manipulation and scenario checks. Understanding of, and attention to, the scenario was checked by asking participants to indicate the name of the planet in which the film would be set (multiple choice answer: *Mars*, *Earth*, *Alari*, or *Deneb*) and the name of the alien species portrayed in the film (multiple choice answer: *Humans and Martians*, *Menkab and Kochab*, *Menkab and Humans*, or *Algol and Subra*).

We checked participants' perception of which group was currently in control of the power structure by asking participants which alien species was currently more powerful (i.e., had more control over the planet). Participants indicated their answer on a 7 point Likert-type scale (1 = *Menkab*, 7 = *Kochab*).

The manipulation of legitimacy of power was checked with two items tapping the extent to which participants thought the way the Menkab gained power in the planet had been legitimate (1 = *Completely illegitimate*, 7 = *Completely legitimate*), and fair (1 = *Completely unfair*, 7 = *Completely fair*). Together, these items formed a reliable scale ($r = .53$, $p < .001$) and were averaged for analyses.

Necessity of ingroup involvement. Participants' willingness to contribute to the change of the power structure was assessed by asking them whether they thought that inhabitants from other planets (including Humans) should become involved in the selection of which species is to be given power in Alari (1 = *Not at all*, 7 = *Very much*). Participants

were also asked which species they would rather help if Humans became involved [1 = *Menkab* (group in power), 7 = *Kochab* (group with low power)].

Willingness to help the powerful. We assessed participants' desire to help the powerful group in reinforcing their control over the power structure in two ways. First, we assessed participants' overall willingness to help the powerful by asking to what extent they agreed that Humans (their ingroup) should help the Menkab without hesitation (1 = *Completely disagree*, 7 = *Completely agree*). Also, we examined to what extent participants would offer specific forms of help. Specifically, we asked participants to indicate the extent to which they thought dependency-related help and autonomy-related help should be given to the powerful. Past research has described dependency-related help as a form of reinforcement of recipients' reliance on external sources and, thus, help is conveyed by providing full solutions to a problem (e.g., Nadler, 2002, Nalder et al., 2009). To assess dependency-related help, we adapted measures used in past work (e.g., Halabi et al., 2008; Nadler et al., 2009) and asked participants to indicate the extent to which they thought Humans should send troops to take control over Alari on behalf of the Menkab (1 = *Completely disagree*, 7 = *Completely agree*).

Autonomy-related help, in contrast, promotes recipients' independence and, thus, providing help implies providing tools with which recipients can solve their problems in ways that they see fit (Nadler, 2002; Nadler et al., 2009). However, previous research suggests that decisions about what kind of assistance to provide others can be dependent on assessments of the costs and benefits of the various courses of action (Pilivian, Dovidio, Gaertner, & Clark, 1981). Given that people are especially prone to offer autonomy-related help (Halabi et al., 2008), this type of helping might be particularly responsive to such calculations. Specifically, people might favour less costly forms of autonomous help *vis-à-vis* more costly forms. For autonomy-related help, we thus distinguished between low- and high-

cost forms of help, and adapted measures used in past research (e.g., Halabi et al., 2008; Nadler et al. 2009) to assess these forms of help. High-cost autonomy-related help was assessed by asking participants whether they thought that Humans should help the Menkab by providing material resources, needed to operate machinery and weapons, so that the Menkab could pursue any course of action they saw fit (1 = *Completely disagree*, 7 = *Completely agree*). Low-cost autonomy-related help was assessed by asking participants whether they thought Humans should help the Menkab by providing advice and guidance on fighting strategies so that the Menkab could decide for themselves which strategy to follow (1 = *Completely disagree*, 7 = *Completely agree*).

Willingness to help the powerless. We assessed participants' desire to help the powerless to reverse the power distribution and strive for control over the power structure. To do this, participants were asked the same questions used to assess participants' willingness to help the powerful but this time the questions were framed so that participants could indicate their desire to help the powerless (that is, the Kochab) rather than the powerful.

Social dominance orientation. At the end of the questionnaire, we assessed social dominance orientation with the 16-item social dominance orientation scale (Pratto et al., 1994; see Appendix F for the items used in this scale). Participants indicated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*) the extent to which they agreed with each of the statements (e.g., "It would be good if all groups could be equal", "Inferior groups should stay in their place"). These items formed a reliable scale (α = .86) and were averaged for analysis.

Ancillary measures. We added some measures to gain further insight into the effects of power and legitimacy from the perspective of third parties.

Perceptions of the likelihood of change. Perceptions of the likelihood of change in the power structure were assessed by asking participants to what extent they thought that it was

likely that the species in control of the planet would change in the future (1 = *Not at all*, 7 = *Very much*), and whether they thought the power distribution was likely to remain the same in the future (1 = *Not at all*, 7 = *Very much*). The latter item was reverse coded, such that the higher the scores the more changeable participants perceived their position to be. Together, these items formed a reliable scale (r = .25, p = .007) and were averaged for subsequent analyses.

Preference for power reversal. Participants indicated whether they preferred to see the powerful group reinforce their control over the planet, or to see the powerless group striving for control. They also indicated which of these two scenarios (maintenance of the status quo or power reversal) was more likely to happen if the situation were real.

Results

Manipulation and scenario checks. All participants correctly identified the name of the planet and the names of the alien species that they thought were going to be portrayed in the film. To examine whether legitimacy and SDO affected how participants perceived the distribution of power and its legitimacy, we conducted moderation analyses via Process Model 1 (Hayes, 2013). These analyses followed bootstrapping procedures (Preacher & Hayes, 2004; Shrout & Bolger, 2002), and generated 5000 random bootstrap samples with replacement from our initial sample set (N = 117). Legitimacy of the power structure was entered as dichotomous moderator and social dominance orientation (SDO) as a continuous predictor. Legitimacy was coded as -1 (legitimate power structure) and 1 (illegitimate power structure). SDO was mean centred prior to analyses. On the item enquiring who currently had more power and control over the planet (1=Menkab to 7=Kochab), 95% bias-corrected (BC) bootstrap confidence intervals revealed that the effects of legitimacy, SDO, and their interaction were not significant [highest t referred to the legitimacy X SDO interaction: b = .14, SE = .13, t (113) = 1.02, p = .308, 95% CIs = -.13 and .41]. Overall, as intended

participants thought the Menkab had more power than the Kochab (*M* = 1.83, *SD* = 1.20), irrespective of legitimacy, perspective, and SDO.

When checking for the manipulation of legitimacy, 95% bias-corrected (BC) bootstrap confidence intervals (sample = 5000) revealed that participants perceived the current power structure to be more legitimate in the legitimate (*M* = 4.05, *SD* = 1.32) than in the illegitimate conditions (*M* = 2.43, *SD* = 1.15), *b* = -.81, *SE* = .12, *t* (113) = -6.96, *p* < .001, 95% CIs = -1.04 and -.58. The effects of SDO [*b* = .06, *SE* = .14, *t* (113) = .72, *p* = .718, 95% CIs = -.23 and .33] and the legitimacy X SDO interaction [*b* = .04, *SE* = .14, *t* (113) = .27, *p* = .787, 95% CIs = -.24 and .32] were not significant on this measure.

Social dominance orientation. Before examining the role of SDO as a predictor, we examined whether participants' responses on this measure had been affected by the manipulation of legitimacy. A one-way ANOVA revealed that the effects of legitimacy on SDO were not significant, *F* (1, 115) = .31, *p* = .577, η^2 = .003. Overall, participants' scores were low (*M* = 2.41, *SD* = .83; lower than the mid-point of the scale (4), *t* (116) = -20.72, *p* < .001), reflecting weak social dominance beliefs. Since the manipulations did not affect social dominance orientation, we proceeded by examining the role of this variable as a predictor.

Necessity of ingroup involvement. The moderation analyses were conducted via PROCESS Model 1 (Hayes, 2013). Again, legitimacy of the power structure was entered as dichotomous moderator and social dominance orientation (SDO) as a continuous predictor. Legitimacy of power and SDO were treated as described above, that is, legitimacy was coded as -1 (legitimate power) and 1 (illegitimate power), and SDO was mean centred. On the item enquiring whether inhabitants from other planets (i.e., other than the two alien planets involved) should become involved in the selection of which species was to be given power, 95% bias-corrected (BC) bootstrap confidence intervals (sample = 5000) did not reveal significant main or interactive effects [legitimacy, *b* = .11, *SE* = .14, *t* (113) = .78, *p* = .436,

95% CIs = -.17 and .38; SDO, *b* = .29, *SE* = .17, *t* (113) = 1.72, *p* =.098, 95% CIs = -.04 and .62; and the interaction, *b* = -.12, *SE* = .17, *t* (113) = -.74, *p* = .463, 95% CIs = -.46 and .21]. The overall mean indicates that participants thought that inhabitants from other planets should not become involved (*M* = 2.77, *SD* = 1.51).

On the item enquiring which alien species participants thought Humans should help [1= Menkab (group in power) to 7 = Kochab (powerless group)], 95% bias-corrected bootstrap confidence intervals revealed a significant effect of legitimacy, *b* = .46, *SE* = .09, *t* (113) = 4.98, *p* < .001, 95% CIs = .27 and .64. The effects of SDO, *b* = .04, *SE* = .11, *t* (113) = .37, *p* =.709, and the interaction, *b* = -.05, *SE* = .11, *t* (113) = -.49, *p* =.626, were not significant. Participants indicated a stronger preference for Humans to help the powerless (vs. the powerful) when the power structure was illegitimate (*M* = 5.20, *SD* = 1.14) than when it was legitimate (*M* = 4.29, *SD* = .79).

Willingness to help the powerful vs. the powerless. For each indicator, we conducted a repeated-measures ANOVA, with the helped group (the powerful and the powerless) as the within-participants factor, legitimacy of power structures as the between-participants factor. We also included SDO as a covariate, but specified the model to test interactions between this continuous measure and the other factors.

Overall willingness to help. Analyses revealed a significant effect of helped group, *F* (1, 113) = 10.19, *p* = .002, η^2 = .082, which was qualified by a significant two-way interaction between helped group and legitimacy, *F* (1, 113) = 8.35, *p* = .005, η^2 = .068 (see Table 5.1). The main effect of legitimacy, *F* (1, 113) = .15, *p* = .701, η^2 = .001, of SDO, *F* (1, 113) = 2.64, *p* = .107, η^2 = .023, the interactions between helped group and SDO, *F* (1, 113) = 1.59, *p* = .210, η^2 = .014, between legitimacy and SDO, *F* (1, 113) = .23, *p* = .630, η^2 = .002, and the three-way interaction between helped group, SDO, and legitimacy of power structures, *F* (1, 113) = 2.04, *p* = .156, η^2 = .018, were not significant. Simple main effect

analysis revealed that in both conditions of legitimacy participants were more willing to help the powerless than they were to help the powerful, but this difference was stronger when power structures were illegitimate [M = 3.97, SD = 1.74 vs. M = 2.64, SD = 1.59, respectively; F (1,115) = 41.86, p < .001, η^2 = .267] than when they were legitimate [M = 2.93, SD = 1.40 vs. M = 2.47, SD = 1.31, respectively; F (1,115) = 5.10, p = .026, η^2 = .042]. In addition, participants were equally willing to help the powerful, irrespective of legitimacy conditions [F (1,115) = .44, p = .51, η^2 = .004]. Comparisons of the means to the mid-point of the scale reveal that they were significantly lower than the mid-point (all ts > -8.89, ps < .001), indicating that overall participants were not willing to help the powerful. By contrast, participants were more willing to help the powerless when power structures were illegitimate than when they were legitimate [F (1,115) = 31.34, p = .001, η^2 = .098]. Thus, whereas participants thought that Humans should not help the powerful group to reinforce their control, irrespective of conditions of legitimacy, they thought that Humans should help the powerless to strive for control to a greater extent when power structures were illegitimate than when they were legitimate.

Dependency-oriented help. Analyses revealed that the effects of helped group, F (1, 113) = 1.77, p = .187, η^2 = .015, of legitimacy, F (1, 113) = .54, p = .465, η^2 = .005, of SDO, F (1, 113) = 2.05, p = .155, η^2 = .018, the interaction between helped group and legitimacy of power structures, F (1, 113) = 1.34, p = .250, η^2 = .012, the interaction between helped group and SDO, F (1, 113) = .02, p = .894, η^2 < .001, the interaction between legitimacy and SDO, F (1, 113) = .06, p = .814, η^2 < .001, and the three-way interaction between helped group, SDO, and legitimacy of power structures, F (1, 113) = 1.94, p = .167, η^2 = .017, were not significant. Overall, comparing to the mid-point of the scale, participants were not willing to provide dependency-related help neither to power holders (M = 2.02, SD = 1.29), t (116) = -16.56, p < .001, nor to the powerless, (M = 2.50, SD = 1.50), t (116) = -10.78, p < .001.

High-cost autonomy-related help. Analyses revealed a significant effect of helped group, F (1, 113) = 9.50, p = .003, η^2 = .077, that was qualified by a significant interaction between helped group and legitimacy of power structures, F (1, 113) = 16.29, p < .001, η^2 = .125 (see Table 5.1). The main effect of legitimacy, F (1, 113) = .01, p = .917, η^2 < .001, of SDO, F (1, 113) = 1.39, p = .241, η^2 = .012, the interactions between helped group and SDO, F (1, 113) = 1.40, p = .239, η^2 = .012, between legitimacy and SDO, F (1, 113) = .30, p = .587, η^2 = .003, and the three-way interaction between helped group, SDO, and legitimacy of power structures, F (1, 113) = .16, p = .691, η^2 = .001, were not significant. Simple main effect analysis revealed that, when the power structure was illegitimate, participants were more willing to offer high-cost autonomy-related help to the powerless (M = 3.66, SD = 1.65) than to the powerful (M = 2.41, SD = 1.45), F (1,115) = 51.86, p < .001, η^2 = .311. When power structures were legitimate, participants equally help the powerless (M = 2.69, SD = 1.43) and the powerful (M = 2.45, SD = 1.50), F (1,115) = 1.89, p = .172, η^2 = .016. Analyses also revealed no effect of legitimacy on participants' willingness to offer high-cost autonomy-related help to the powerful [F (1,115) = .02, p = .879, η^2 < .001]. However, participants were more willing to provide the powerless with high-cost autonomy-related help when power structures were illegitimate than when they were legitimate [F (1,115) = 11.60, p = .001, η^2 = .092].

Low-cost autonomy-related help. Analyses revealed that the main effect of helped group, F (1, 113) = 2.46, p = .119, η^2 = .021, of legitimacy, F (1, 113) = .07, p = .794, η^2 = .001, of SDO, F (1, 113) = .77, p = .382, η^2 = .007, the interactions between helped group and SDO, F (1, 113) = .10, p = .755, η^2 = .001, between legitimacy and SDO, F (1, 113) = .35, p = .558, η^2 = .003, and the three-way interaction between helped group, SDO, and legitimacy of power structures, F (1, 113) = .26, p = .610, η^2 = .002, were not significant. However, a significant interaction between helped group and legitimacy was found, F (1, 113) = 5.58, p =

.020, η^2 = .047 (see Table 5.1). Simple main effect analysis revealed that participants were more willing to offer low-cost autonomy-related help to the powerless than to the powerful in both conditions of legitimacy, but this difference was stronger when power structures were illegitimate [*M* = 4.20, *SD* = 1.75 vs. *M* = 2.93, *SD* = 1.74, respectively; *F* (1,115) = 33.42, *p* < .001, η^2 = .225] than when they were legitimate [*M* = 3.55, *SD* = 1.76 vs. *M* = 3.05, *SD* = 1.82, respectively; *F* (1,115) = 5.81, *p* = .018, η^2 = .048]. Analyses also revealed that legitimacy did not affect participants' willingness to offer low-cost autonomy-related help to the powerful (legitimate power structure: *M* = 3.05, *SD* = 1.82; illegitimate power structure: *M* = 2.93, *SD* = 1.74), *F* (1,115) = .13, *p* = .717, η^2 = .001, but that participants were more willing to provide the powerless with low-cost autonomy-related help when power structures were illegitimate (*M* = 4.20, *SD* = 1.75) than when they were legitimate (*M* = 3.55, *SD* = 1.76), *F* (1,115) = 3.62, *p* = .056, η^2 = .031.

Additionally, we also examined which type of help (dependency-related, high-cost autonomy-related, and low-cost autonomy-related) participants favoured. Contrasts analyses revealed that, irrespective of SDO levels, in both conditions of legitimacy participants were more supportive of low-cost autonomous help than they were of high-cost autonomous help (all *p*s < .007). Dependency-related help was the least supported (all *p*s < .03). This pattern was the same when help was provided to the powerful and when help was provided to the powerless.

Ancillary measures.

Perceptions of the likelihood of change. The legitimacy X SDO moderation analyses was conducted via PROCESS Model 1 (Hayes, 2013). Legitimacy of the power structure was entered as dichotomous moderator and social dominance orientation (SDO) as a continuous predictor. Legitimacy of power and SDO were treated as described above, that is, legitimacy was coded as -1 (legitimate power) and 1 (illegitimate power), and SDO was mean centred.

95% bias-corrected bootstrap confidence intervals (sample = 5000) revealed that the effects of legitimacy, b = -.12, SE = .13, t (113) = -.89, p = .375, 95% CIs = -.37 and .14, of SDO, b = .06, SE = .16, t (113) = .40, p = .689, 95% CIs = -.25 and .38, and their interaction, b = -.08, SE = .16, t (113) = -.61, p = .542, 95% CIs = -.41 and .22, were not significant. Overall, and compared to the mid-point of the scale (4), participants thought the current power structure was likely to change (M = 4.35, SD = 1.39), t (116) = 2.76, p = .007.

Preference for power reversal. The moderation analysis via PROCESS Model 1 followed the same procedures as reported above. 95% bias-corrected bootstrap confidence intervals (sample = 5000) revealed that the preference to see a reversal or a reinforcement of the power structure was not significantly affected by legitimacy, b = .43, SE = .31, Z = 1.37, p = .170, 95% CIs = -.18 and 1.04, by SDO, b = -.50, SE = .32, Z = -1.53, p = .123, 95% CIs = -1.13 and .14, and by their interaction, b = -.49, SE = .32, Z = -1.51, p = .132, 95% CIs = -1.12 and .15. Overall, more participants stated a preference for a power change (n =101) than for the reinforcement of the current power structure (n = 16). On the item enquiring which of these two scenarios (power reversal or power reinforcement) was more likely to happen if the situation were real, 95% bias-corrected bootstrap confidence intervals (sample = 5000) revealed that the effects of legitimacy, b = .01, SE = .20, Z = .04, p = .971, 95% CIs = -.39 and .40, of SDO, b = .36, SE = .24, Z = 1.53, p = .127, 95% CIs = -.10 and .83, and their interaction, b = -.08, SE = .24, Z = -.32, p = .746, 95% CIs = -.55 and .39 were not significant. Overall, participants indicated that the scenario in which the powerful reinforced their control was more likely to happen in real life (n = 79) than the scenario in which the powerless strove for power reversal (n = 38).

Table 5.1

Means and Standard Deviations for Overall Willingness to Help the Powerful and the Powerless, and for Type of Help Given to Each of These Groups, as a Function of the Legitimacy of the Power Structure

	Powerful Group				Powerless Group			
	Legitimate		Illegitimate		Legitimate		Illegitimate	
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*
Overall Help	2.47	(1.31)	2.64	(1.59)	2.93	(1.40)	3.97	(1.74)
Dependency	1.93	(1.25)	2.12	(1.33)	2.26	(1.38)	2.75	(1.58)
High-Cost Autonomy	2.45	(1.50)	2.41	(1.45)	2.69	(1.43)	3.66	(1.65)
Low-Cost Autonomy	3.05	(1.82)	2.93	(1.74)	3.59	(1.76)	4.20	(1.75)

Discussion

This study examined for the first time the intergroup helping intentions of group members who are external to a power structure—third party observers. Although our predictions were largely exploratory, results supported our prediction that the perceived legitimacy of power structures would shape observers' willingness to offer help. Specifically, observers were overall more inclined to help the powerless than they were to help the powerful, but these helping intentions were intensified when power structures were illegitimate (vs. legitimate). The results also revealed that illegitimate power structures rendered observers more likely to provide autonomy-related help (both high- and low-cost) to the powerless than legitimate power structures. Observers' intentions to provide dependency-

related help to the powerless, and to provide any form of help (high- and low-cost autonomy- and dependency-related help) to the powerful, were not determined by perceptions of legitimacy.

Experiment 5 additionally revealed that observers favoured autonomy-related over dependency-related help, but were especially supportive of less costly forms of autonomy-related help, in both conditions of legitimacy. Given that people often make assessments of the costs and benefits that providing help has for themselves (e.g., Pilivian et al., 1981), results of Experiment 5 might suggest cost considerations also play a role in observer's decisions to provide different forms of help.

On the other hand, it is interesting to note that this study did not reveal any significant main or interactive effect of observers' SDO on helping intentions. Although past research defines SDO as a general attitudinal inclination of group members towards group-based inequality (e.g., Sidanius & Pratto, 1999), the results of Experiment 5 could suggest that this individual difference factor is relatively inert in the absence of more specific group-serving goals to reinforce power (see Schmitt, Branscombe, & Kappen, 2003, for a discussion of this issue). Alternatively, it is possible that a scenario involving power relationships among alien species might have made it difficult to activate effects of SDO. Experiment 6 will provide further insight into this matter by continuing to investigate the role of SDO for observers but will also include an examination of the role of SDO for powerful group members, in a similar scenario.

The ancillary measures revealed that observers' perceptions of the likelihood of change and preference for power reversal were not predicted by perceptions of legitimacy or by SDO. Thus, these results do not offer much insight into the help offering intentions of third party observers when power structures are illegitimate (vs. legitimate).

Experiment 6

Experiment 6 aims to examine whether the legitimacy of power structures interacts with individual differences in SDO to determine help from powerful group members, not just observers. To provide further insight into the strategic nature of helping by the powerful, we compare how these factors affect helping by the powerful to how they affect helping by third party observers. By comparing the responses of powerful group members to those of third parties, Experiment 6 will also clarify whether the absence of effects of SDO in Experiment 5 is due to the type of scenario used, or to the external position of third parties.

At its very core, SDO is a status legitimizing ideology that is particularly useful for high-status and powerful social groups (Schmitt et al., 2003). Given that illegitimate power structures threaten the status quo, effects of SDO should be more evident when power is illegitimate. Thus, we hypothesize that powerful group members who are high (vs. low) in SDO are likely to respond to the possibility of power change (i.e., illegitimate power) by reinforcing the inferiority of powerless groups, that is, by favouring dependency-related help and by withdrawing autonomy-related help. By contrast, SDO might be less activated (if at all) when power positions are safe and secure, that is when power is legitimate. Thus, we predict that powerful group members are likely to be generally willing to provide help under conditions of legitimacy, irrespectively of their SDO levels.

Social psychological research has largely demonstrated that while people seek to maintain positive impressions of themselves (Baumeister, 1982) and their ingroups (Tajfel & Turner, 1986), the ways in which they perceive and describe members of other groups – both positively and negatively – often reflects how they perceive the broader social structures and, importantly, the motivations they hold in that setting (e.g., Fiske, 1993; Fiske, Cuddy, & Glick, 2007; Marques, Yzerbyt, & Leyens, 1988; Tajfel, 1978). For example, when seeking positive differentiation from other groups, ingroup members often describe outgroups in a

less positive fashion than they otherwise would when not invested in pursuing social superiority (e.g., Tajfel & Turner, 1986). In a similar vein, we considered that descriptions of powerless groups could be revealing of participants' desire to protect current power distributions. Specifically, we expect that powerful group members high (vs. low) in SDO will be more prone to describe the powerless in negative ways when power structures are illegitimate, than when power positions are legitimate. For observers, we expect them to provide more positive descriptions of the powerless when their lack of power is illegitimate than when it is legitimate. Again, we do not expect SDO to significantly affect the way observers describe the powerless.

Moreover, in Experiment 6 we aim to provide further insight into the dynamics of help by assessing participants' reasons for providing assistance to the powerless. Research on intergroup help suggests that the strategic uses of dependency- and of autonomy-oriented help reflect different concerns regarding power relations: Concern for the maintenance of ingroup superior standing (ingroup-focused concerns), and concern for the protection of powerless outgroups (outgroup-focused concerns). However, to our knowledge, this has yet to be empirically demonstrated in the context of helping relations. As suggested by the IHPR model (e.g., Nadler, 2002; Nadler et al., 2009), because illegitimate power structures are less likely to be accepted by powerless groups, power holders' help behaviour should be guided by increased concerns regarding the maintenance of their group's superiority and by reduced concerns for the welfare of the powerless. Conversely, when social structures are legitimate, power holders are expected to help the powerless whenever help is needed and without concerns around the maintenance of threatened power. Research in other domains indeed suggests that the extent to which powerful group members focus on their ingroup or on powerless outgroups affects how they experience legitimate and illegitimate social relations, eliciting different emotions (e.g., Harth et al., 2008; Leach et al., 2002). For example, it has

been shown that when intergroup inequality is illegitimate and outgroup-focused (that is, focused on the relative disadvantaged outgroups) rather than ingroup-focused (that is, focused on the relative advantage of the ingroup), advantaged groups are more likely to experience sympathy for the disadvantaged, which is, in turn, associated with a greater willingness to support the interests of the disadvantaged (Harth et al., 2008; Iyer et al., 2003). In a similar vein, we considered the possibility that participants' ingroup- and outgroup-focused concerns when deciding which type of help to provide to the powerless might vary as a function of perspective, legitimacy, and SDO, and that this might help understand participants' helping intentions and descriptions of the powerless. Again, we expect the role of individual differences in SDO in predicting power holders' ingroup and outgroup concerns to be more activated when power structures are illegitimate. Thus, we predict that, when power structures are illegitimate (vs. legitimate), power holders' increased SDO will predict increased ingroup-focused and decreased outgroup-focused concerns. On the other hand, based on the findings of Experiment 5, we expect observers' helping intentions to be guided by concerns about the powerless when power structures are illegitimate, relative to when they are legitimate. We do not expect SDO to significantly affect observers' ingroup- and outgroup-focused concerns.

Experiment 6 used the same scenario as Experiment 5, with a few procedural changes. The design of Experiment 6 examines helping intentions of both observers and powerful group members, whereas Experiment 5 only examined the helping intentions of observers. Therefore, we adapted the scenario so it could accommodate both perspectives. Specifically, instead of directly asking participants the extent to which they were willing to help the powerless in fighting the powerful for a better social standing (as we did when participants were exclusively observers—Experiment 5), we created a situation in which the powerless could potentially have access to a large amount of natural resources but needed help with

their exploration. Given that control over resources is, by definition, reflective of power (Fiske, 1993; Fiske & Berdhal, 2007; Thibaut & Kelley, 1959), and given that the scenario used in the experiments of this chapter illustrates a power hierarchy the function of which is to distribute resources between powerful and powerless groups, we considered that this situation would represent an opportunity: For powerful participants, to either consolidate their power by assuming control over the resources or to legitimately assist the powerless because help was needed; For observers, to either reinforce or reverse power inequalities.

In Experiment 6 we therefore test our main predictions that perceptions of legitimacy of power and individuals' SDO jointly determine powerful group members' helping intentions and description of the powerless, which might be reflective of attempts to cement their superior social standing. Moreover, we also expect this interactive effect to predict power holders' ingroup- and outgroup-focused motivations, and that this contributes to participants' helping choices and descriptions of the powerless. Our second goal is to determine whether the combined effect between individual differences in SDO and perceived legitimacy of power structures predicts help decisions and motivations of all help providers or, rather, whether these are dependent on the help provider's position in the power structure (powerful group member vs. external observer).

Method

Participants and Design. A total of 224 students at the University of Exeter (164 females, 60 males; $M_{\text{Age}} = 20.09$, $SD = 2.74$) completed an online questionnaire and were randomly allocated to a 2 (Perspective: powerful group member vs. external observer) X 2 (Legitimacy of Power Structure: legitimate vs. illegitimate) between-participants experimental design**.** Participants' social dominance orientation was also assessed and used as a continuous predictor. The questionnaire took around 15 minutes to complete and

participants were entered into a lottery draw for five prizes of £10 (approximately 14.80 US Dollars).

Procedure. Procedures were similar to those of Experiment 5. However, in Experiment 6 the scenario was adapted so that participants could either take the perspective of someone who is part of the power structure (that is, a powerful group member) or take the perspective of an external observer (which corresponds to the perspective that participants took in Experiment 5). Participants always took the perspective of Humans. Participants allocated to a powerful group member perspective read that Humans (their ingroup) gained control over the committee of representatives of both species, whereas participants allocated to an external observer perspective read that the Menkab gained control over the committee of representatives. The Kochab were once again the powerless group. Perceptions of legitimacy were manipulated in the same way as they were in Experiment 5 and, thus, the Humans or the Menkab were the group in power but they achieved this position either by legitimate or by illegitimate means. Next, participants responded to the dependent measures in the order described below. At the end of the study, participants were thanked, debriefed, and entered a lottery draw (five participants were randomly selected for a prize of £10 each—approximately 14.80 US Dollars).

Measures. Participants completed the dependent measures in the order described below.

Manipulation and scenario checks. The scenario was checked by asking participants to indicate the name of the planet in which the film would be set (multiple choice answer: *Mars*, *Nashira*, *Alari*, or *Deneb*) and of the species portrayed in the film (multiple choice answer: *Humans and Martians*, *Menkab and Kochab*, *Algol and Subra*, or *Humans and Kochab*). Participants were also asked what was the reason behind the creation of the committee of representatives of Humans (or Menkab) and Kochab (multiple choice answer:

To distribute resources between the two species; *To make space travel easier*; *To organize cultural events*; *There was no particular reason*).

We checked participants' perception of which group was currently in control of the power structure in the same way as we did in Experiment 5. However, given that in Experiment 6 we also included the perspective of powerful group members, participants indicated their answers on a 7 point Likert-type scale, from 1 [*Humans* (or *Menkab*)] to 7 (*Kochab*). The manipulation of legitimacy was also checked by using the same questions as in Experiment 5. Again, the two items used to check for the manipulation of legitimacy formed a reliable scale ($r = .52$, $p < .001$) and were averaged for analyses.

Willingness to help the powerless. In order to capture the perspectives of both powerful group members and observers, participants were asked whether they were willing to help the Kochab (powerless group) with extraction of resources (instead of directly helping them to strive for a better power position). First, participants indicated to what extent they generally thought Humans should help the Kochab with the resource extraction (1 = *Not at all*, 7 = *Very much*). After this, participants indicated the extent to which they thought their ingroup should provide this help in specific ways. To assess dependency-related help, participants indicated the extent to which they thought Humans should send a team equipped with the appropriate technology to extract the resources on behalf of the Kochab (1 = *Completely disagree*, 7 = *Completely agree*). High-cost autonomy-related help was assessed by asking participants whether they thought that Humans should help the Kochab by financing the technology needed, so that the Kochab could pursue any course of action they saw fit (1 = *Completely disagree*, 7 = *Completely agree*). Low-cost autonomy-related help was assessed by asking participants whether they thought Humans should help the Kochab by providing advice and guidance on resource extraction so that the Kochab could decide for

themselves which strategy to follow to extract resources (1 = *Completely disagree*, 7 = *Completely agree*).

Reasons to help. Participants were asked to indicate on a 7-point scale (from 1 = *Completely disagree* to 7 = *Completely agree*) the extent to which each of six reasons would motivate them, as Humans, to help the Kochab, if they had decided to do so (e.g., "I would want to protect the Kochab", "I would want to ensure resources were available to Humans"). An exploratory factor analysis (maximum likelihood) with varimax rotation extracted two factors that explained 65.29% of the total variance (*KMO* = .69; *Bartlett's Test of Sphericity*, χ^2 (15) = 306.53, $p < .001$; *MSA* value = .66) (see Appendix G for item loadings on each factor). We thus created two indexes tapping on the concerns that guided participants' helping intentions to the powerless: outgroup-focused concerns ($\alpha = .78$) and ingroup-focused concerns ($r = .39$, $p < .001$).

Descriptions of the powerless. Research has shown that people often form impressions and describe others along three dimensions: competence, morality, and sociability (Fiske et al., 2007; Leach, Ellemers, & Barreto, 2007). Likewise, we assessed the impressions and descriptions participants made of the powerless by asking the degree to which they thought Kochab members were competent (competent and efficient, $r = .47$, $p < .001$), moral (honest and trustworthy, $r = .62$, $p < .001$), and sociable (friendly and kind, $r = .41$, $p < .001$), (1 = *Completely disagree*, 7 = *Completely agree*).[7]

Social dominance orientation. At the end of the questionnaire, we again assessed social dominance orientation with the same 16-item social dominance orientation scale used in Experiment 5. Again, this scale was reliable ($\alpha = .89$) and was averaged for analysis.

[7] In addition to the items described here, two other items were used to assess participants' impression of the powerless as *obedient* and as *defiant* (1 = *Completely agree*, 7 = *Completely disagree*). However, in hindsight, these items did not adequately represent competence, morality, or sociability, nor were they sufficiently relevant to our core hypothesis.

Results

Unless otherwise specified, the moderation analyses described below were conducted via PROCESS Model 3 (Hayes, 2003). These analyses followed bootstrapping procedures—a method that is not dependent upon a normal sampling distribution (see Preacher & Hayes, 2004; Shrout & Bolger, 2002), and generated 5000 random bootstrap samples with replacement from our initial sample set (N = 201). Participants' perspective of the power structure and the legitimacy of this power structure were entered as dichotomous moderators, and social dominance orientation (SDO) as a continuous predictor. We coded perspective, such that -1 indicated that the participant took the perspective of a third party observer and 1 indicated that the participant took the perspective of a powerful group member. Legitimacy of power structures was coded such that -1 indicated a legitimate power structure and 1 indicated an illegitimate power structure. SDO was mean centred prior to analyses to make the interpretation of the regression coefficients possible. 95% bias corrected (BC; see Efron, 1987) bootstrap confidence intervals (CI) (sample = 5000) allowed for inspection of significant main and interactive effects.

Manipulation and scenario checks. Twenty-three participants failed the scenario checks and were, therefore, excluded from further analyses. To check for potential effects of perspective, legitimacy, and SDO on the item enquiring who currently had more power and control over the planet (1=Humans/Menkab to 7=Kochab), we conducted moderation analysis via PROCESS Model 3 (Hayes, 2003). This analysis revealed a marginal effect of the perspective X legitimacy interaction, b = .18, SE = .09, t (193) = 1.87, p = .063, with a 95% BC (bias-corrected) bootstrap confidence interval (CI) of -.01 and .36 (no other main or interactive effects were significant: ts < -1.52, ps > 129). However, simple effects analyses revealed that comparisons between experimental conditions were not reliable (all Fs < 2.16, ps > .143, η^2 < .011). As intended, participants thought that Humans/the Menkab had more

power than the Kochab in all conditions (testing the mid-point of the scale, all *t*s > -8.02, *p*s < .001).

Also as intended, participants perceived the current power structure to be more legitimate in the legitimate condition (*M* = 4.47, *SD* = 1.22) than in the illegitimate condition (*M* = 2.82, *SD* = 1.43), *b* = -.82, *SE* = .09, *t* (193) = -8.82, *p* < .001, 95% CIs = -1.01 and -.64. No other main effect or interaction was significant on this measure [highest *t* for the legitimacy X SDO interaction, *b* = .17, SE = .11, *t* (193) = 1.71, *p* = .101, 95% CIs = -.02 and .37].

Social dominance orientation. Before examining the role of SDO as a predictor, we tested whether scores on this measure had been affected by the manipulations. A two-way ANOVA revealed that the effects of perspective, *F* (1, 197) = .59, *p* = .444, η^2_p = .003, of legitimacy, *F* (1, 197) = .60, *p* = .441, η^2_p = .003, and the interaction between perspective and legitimacy on social dominance orientation, *F* (1, 197) = .22, *p* = .639, η^2_p = .001, were not reliable. As In Experiment 5, overall, participants scored low on this measure (*M* = 2.54, *SD* = .94; lower than the mid-point of the scale (4), *t* (200) = -22.00, *p* < .001). Since the manipulations did not affect social dominance orientation, we proceeded by examining the role of this variable as a predictor.

Willingness to help the powerless. To examine whether participants' willingness to help the powerless was moderated by situational and individual factors, we again used PROCESS Model 3 (Hayes, 2013) to conduct moderation analyses.

Overall willingness to help the powerless. Analyses revealed a main effect of participants' perspective such that powerful group members were more willing to help the powerless (*M* = 5.94, *SD* = 1.20) than were external observers (*M* = 4.41, *SD* = 1.67), *b* = .77, *SE* = .11, *t* (193) = 7.53, *p* < .001, with a 95% BC bootstrap CI of 1.17 and 1.94. Analyses also showed a reliable main effect of SDO, such that higher scores on social dominance

orientation were associated with less willingness to help the powerless, b = -.28, SE = .11, t (193) = -2.59, p = .010, 95% bootstrap CI of -.50 and -.07. No other effects were reliable (all ts < -.16, ps > .146).

Dependency-related help. Powerful group members (M = 4.34, SD = 1.50) were more willing than external observers (M = 3.83, SD = 1.54) to offer dependency-related help to the powerless, b = .25, SE = .11, t (193) = 2.32, p = .021, 95% BC bootstrap CI of .08 and .93. Also, when the power structure was legitimate, participants tended to offer more dependency-related help (M = 4.26, SD = 1.55) than when the power structure was illegitimate (M = 3.88, SD = 1.51), b = -.19, SE = .11, t (193) = -1.74, p = .084, 95% BC bootstrap CI of -.40 and .03. No other effects were significant (all ts < -.78, ps > .438).

High-cost autonomy-related help. Analyses revealed only a reliable effect of perspective, b = .23, SE = .11, t (193) = 2.06, p = .041, 95% BC bootstrap CI of .02 and .90. Again, powerful group members (M = 4.53, SD = 1.54) were more willing than external observers (M = 4.07, SD = 1.60) to offer high-cost autonomy-related help. No other effects were significant (all ts < -1.48, ps > .140).

Low-cost autonomy-related help. Analyses revealed a significant effect of SDO, b = -.35, SE = .10, t (193) = -3.60, p < .001, 95% BC bootstrap CI of -.55 and -.16, which was qualified by a marginally significant three-way interaction between SDO, perspective, and legitimacy, b = -.18, SE = .10, t (193) = -1.85, p = .065, 95% BC bootstrap CI of -1.50 and .05 (see Figure 5.1). No other effects were reliable (all ts < -1.37, ps > .172).

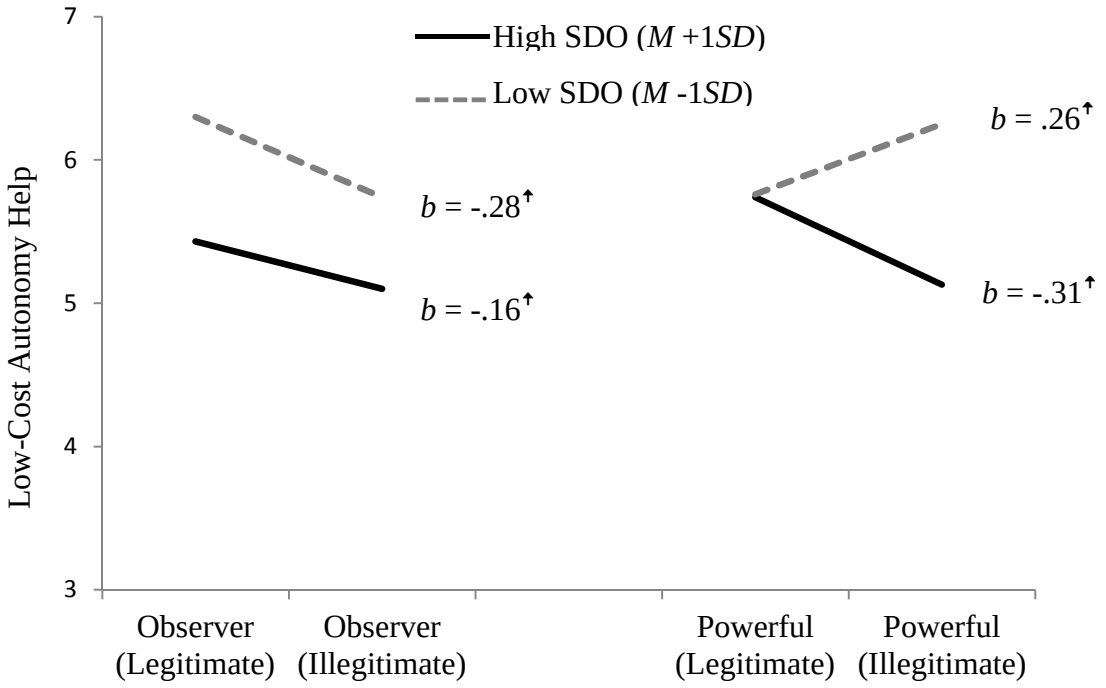

Figure 5.1. Participants' willingness to provide low-cost autonomy-related help to the powerless as a function of perspective, legitimacy of power structures, and SDO. ↑ $p > .114$

We decomposed this marginal three-way interaction by testing the interaction between perspective and legitimacy within low (one *SD* below the mean) and high (one *SD* above the mean) levels of SDO. This revealed a significant perspective X legitimacy interaction within low SDO levels, $b = .27$, $SE = .13$, t (193) = 2.08, $p = .039$, 95% BC bootstrap CI of .01 and .52, but not within high SDO levels, $b = -.07$, $SE = .13$, t (193) = -.56, $p = .579$, 95% BC bootstrap CI of -.33 and .19. However, simple slopes analyses within low SDO levels indicated that the effect of legitimacy within observers ($b = -.28$, $SE = .18$, $p = .132$) and within the powerful ($b = .26$, $SE = .18$, $p = .154$), and the effect of perspective within legitimate ($b = -.27$, $SE = .18$, $p = .134$) and illegitimate ($b = .27$, $SE = .19$, $p = .152$) power structures, were not significant.

To provide further insight into the marginally significant three-way interaction, we also decomposed this interaction by testing the legitimacy X SDO interaction within powerful

group members and within observers. 95% BC bootstrap confidence intervals revealed that the interaction between legitimacy and SDO was significant for powerful group members [*b* = -.30, *SE* = .14, *t* (193) = -2.12, *p* = .035, 95% BC bootstrap CI of -1.16 and -.04] but not for observers [*b* = .06, *SE* = .14, *t* (193) = .46, *p* = .646, 95% BC bootstrap CI of -.41 and .66]. Simple slope analyses revealed that when the power structure was illegitimate, powerful group members who were high in SDO (that is, one *SD* above the mean) were less willing to offer low-cost autonomy-related help than powerful group members who were low in SDO (one *SD* below the mean), *b* = -.61, *SE* = .19, *t* (193) = -3.23, *p* = .002. This effect of SDO was not significant when the power structure was legitimate, *b* = -.01, *SE* = .21, *t* (193) = -.04, *p* = .971. Although the legitimacy X SDO interaction was not significant for observers, inspection of the simple slopes revealed that when the power structure was legitimate, observers low in SDO were more willing to offer low-cost autonomy-related help to the powerless than observers high in SDO, *b* = -.46, *SE* = .19, *t* (193) = -2.44, *p* = .015.

Reasons to help. Moderation analyses via PROCESS Model 3 examined whether participants' concerns when helping the powerless was affected by perspective, legitimacy, and SDO.

Outgroup-focused concerns. This analysis revealed significant effects of perspective, *b* = .37, *SE* = .08, *t* (193) = 4.82, *p* < .001, 95% BC bootstrap CI of .43 and 1.03, and SDO, *b* = -.34, *SE* = .08, *t* (193) = -4.12, *p* < .001, 95% BC bootstrap CI of -.55 and -.23, as well as a significant interaction between legitimacy and SDO, *b* = -.18, *SE* = .08, *t* (193) = -2.16, *p* = .032, 95% BC bootstrap CI of -.34 and -.02, and a significant three-way interaction involving all variables, *b* = -.20, *SE* = .08, *t* (193) = -2.50, *p* = .013, 95% BC bootstrap CI of -.37 and -.05 (see Figure 5.2). No other effects were significant (all *t*s > -1.10, *p*s > .273).

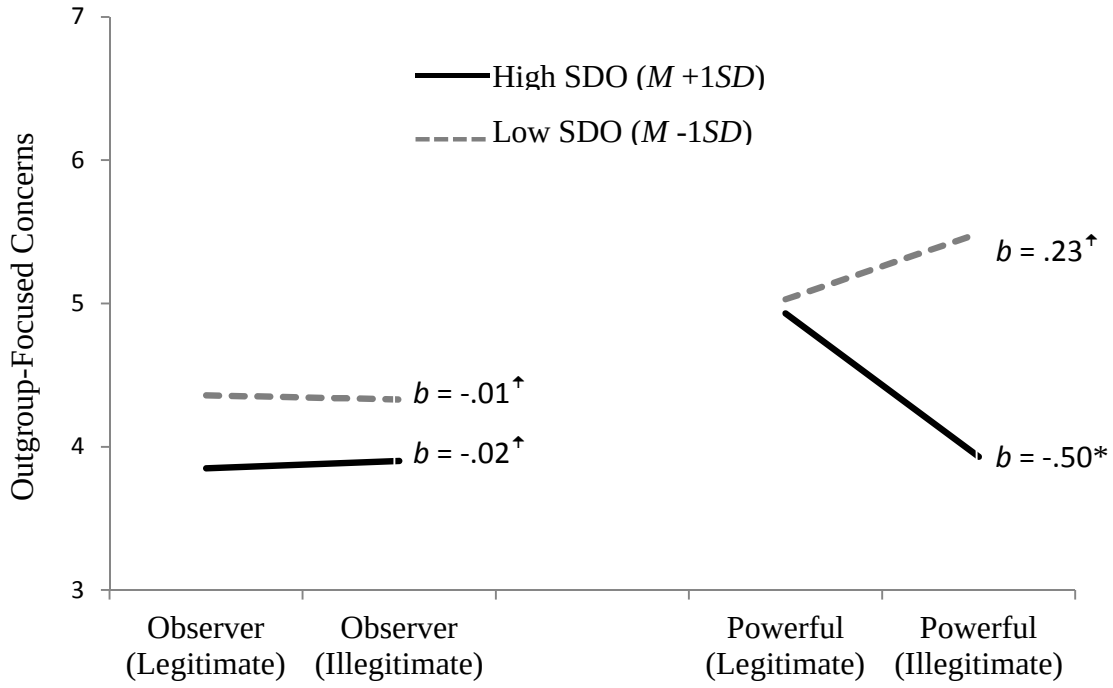

Figure 5.2. Participants' outgroup-focused concerns as a function of perspective, legitimacy of power structures, and SDO. * p = .002, ↑p > .130

The significant three-way interaction was decomposed by testing the interaction between perspective and legitimacy within low (one *SD* below the mean) and within high (one *SD* above the mean) levels of SDO. This revealed a significant perspective X legitimacy interaction within high SDO levels, b = -.26, SE = .11, t (193) = -2.40, p = .017, 95% BC bootstrap CI of -.48 and -.05, but not within low SDO levels, b = .12, SE = .11, t (193) = 1.13, p = .259, 95% BC bootstrap CI of -.09 and .34. Simple slopes analyses revealed that high SDO powerful group members were less concerned with a powerless outgroup when the power structure was illegitimate than when it was legitimate, b = -.50, SE = .16, t (193) = -3.08, p = .002. When participants were high SDO observers, the effect of legitimacy on their outgroup concerns was not significant, b = .02, SE = .15, t (193) = .169, p = .866.

To provide further insight into the three-way interaction, we again decomposed this interaction by testing the legitimacy X SDO interaction within powerful group members and

within observers. 95% BC bootstrap confidence intervals revealed that the interaction between legitimacy and SDO was significant for powerful group members [*b* = -.39, *SE* = .12, *t* (193) = -3.31, *p* = .001, 95% BC bootstrap CI of -1.24 and -.31] but not for observers [*b* = -.03, *SE* = .11, *t* (193) = -.23, *p* = .815, 95% BC bootstrap CI of -.49 and .39]. For the powerful, when power structures were illegitimate, SDO was negatively associated with outgroup-focused concerns, *b* = -.83, *SE* = .16, *t* (193) = -5.29, *p* < .001, 95% BC bootstrap CI of -1.14 and -.52. When power structures were legitimate, there was no effect of powerful group members' SDO, *b* = -.05, *SE* = .18, *t* (193) = -.29, *p* = .768, 95% BC bootstrap CI of -.40 and .29.

Ingroup-focused concerns. Similar to the above, this analysis revealed significant effects of perspective, *b* = .36, *SE* = .09, *t* (193) = 3.76, *p* < .001, 95% BC bootstrap CI of .34 and 1.08, and of SDO, *b* = .30, *SE* = .10, *t* (193) = 2.98, *p* = .003, 95% BC bootstrap CI of .10 and .50, as well as a significant interaction between perspective and SDO, *b* = -.21, *SE* = .10, *t* (193) = -2.09, *p* = .038, 95% BC bootstrap CI of -.82 and -.02, and a marginally significant three-way interaction involving all variables, *b* = .17, *SE* = .10, *t* (193) = 1.69, *p* = .093, 95% BC bootstrap CI of -.11 and 1.48. No other effects were significant (all *t*s < 1.45, *p*s > .15). However, when decomposing the marginal three-way interaction through analysis of perspective X legitimacy interaction within high (one *SD* above the mean) and low (one *SD* below the mean) SDO, it was found that the perspective X legitimacy interaction was not significant for high SDO levels [*b* = .16, *SE* = .13, *t* (193) = 1.22, *p* = .222, 95% BC bootstrap CI of -.10 and .43] or for low SDO levels [*b* = -.16, *SE* = .13, *t* (193) = -1.17, *p* = .243, 95% BC bootstrap CI of -.42 and .11]. Alternatively, we examined the legitimacy X SDO interaction within powerful group members and within observers. Results indicated that the legitimacy X SDO interaction was not significant for powerful group members [*b* = .12, *SE* =

.15, *t* (193) = .84, *p* = .403, 95% BC bootstrap CI of -.17 and .41] or for observers [*b* = -.22, *SE* = .14, *t* (193) = -1.57, *p* = .119, 95% BC bootstrap CI of -.49 and .06].

Therefore, we decomposed the significant two-way interaction between perspective and SDO (see Figure 5.3). This revealed significant effects of perspective within low SDO, [*b* = .55, *SE* = .13, *t* (197) = 4.13, *p* < .001, 95% BC bootstrap CI of.29 and .81], but not within high SDO levels [*b* = .18, *SE* = .13, *t* (193) = -1.33, *p* = .184, 95% BC bootstrap CI of -.09 and .44]. Accordingly, low SDO powerful participants were more focused on concerns regarding their ingroup than low SDO observers.

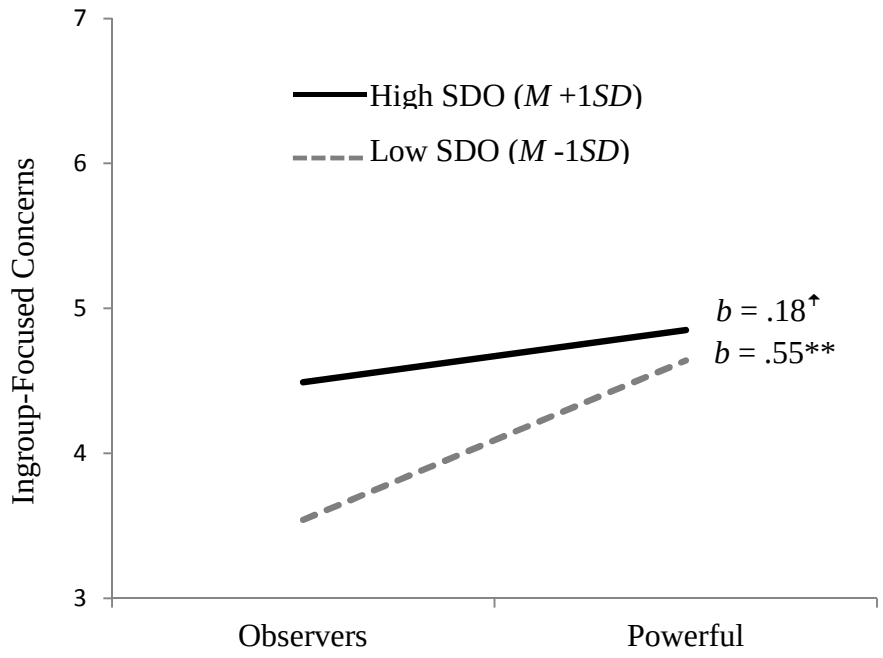

Figure 5.3. Participants' ingroup-focused concerns as a function of perspective and SDO. ** *p* < .001, ↑ *p* = .184.

Description of the powerless. Moderation analyses via PROCESS Model 3 examined whether participants' description of the powerless was affected by perspective, legitimacy, and SDO.

Competent. The effects of perspective, *b* = .20, *SE* = .07, *t* (193) = 2.75, *p* = .007, 95% BC bootstrap CI of .11 and .68, of legitimacy, *b* = -.23, *SE* = .07, *t* (193) = -3.22, *p* = .002, 95% BC bootstrap CI of -.74 and -.18, and of SDO, *b* = -.17, *SE* = .08, *t* (193) = -2.17, *p* = .032, 95% BC bootstrap CI of -.32 and -.01, were significant. Analyses also revealed a significant interaction between legitimacy and SDO, *b* = -.16, *SE* = .08, *t* (193) = -2.15, *p* = .033, 95% BC bootstrap CI of -.63 and -.03. However, these effects were qualified by a marginally significant interaction between SDO, perspective, and legitimacy, *b* = -.14, *SE* = .08, *t* (193) = -1.82, *p* = .071, 95% BC bootstrap CI of -1.16 and .05 (see Figure 5.4). No other effects were significant (all *t*s > -1.06, *p*s > .290).

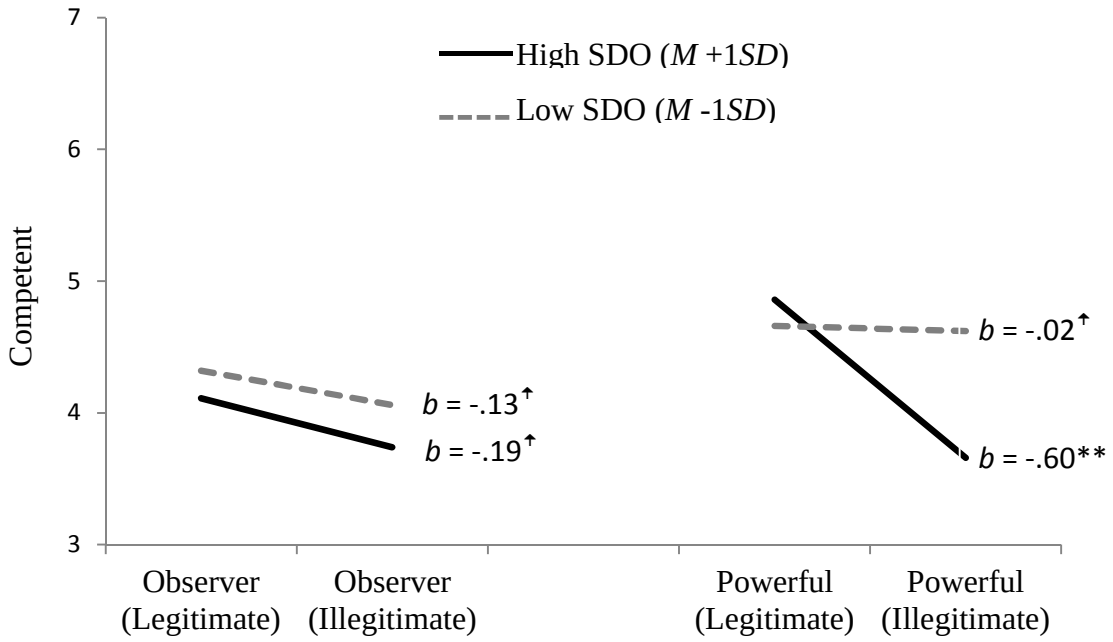

Figure 5.4. Descriptions of the competence of the powerless as a function of perspective, legitimacy of power structures, and SDO. ** *p* < .001, ↑*p* > .176

We decomposed this marginally significant interaction by testing the interaction between perspective and legitimacy within low (one *SD* below the mean) and high (one *SD* above the mean) levels of SDO. This revealed a significant perspective X legitimacy

interaction within high SDO levels, *b* = -.21, *SE* = .10, *t* (193) = -2.03, *p* = .044, 95% BC bootstrap CI of -.41 and -.01, but not within low SDO levels, *b* = .05, *SE* = .10, *t* (193) = .54, *p* = .589, 95% BC bootstrap CI of -.14 and .25. Simple slopes analyses revealed that high SDO powerful group members described the powerless outgroup as less competent when the power structure was illegitimate than when it was legitimate, *b* = -.60, *SE* = .15, *t* (193) = -3.96, *p* < .001. When participants were high SDO observers, the effect of legitimacy on descriptions of the competence of the powerless was not significant, *b* = -.19, *SE* = .14, *t* (193), *p* = .176.

Looked at differently, 95% BC bootstrap confidence intervals indicated that the legitimacy X SDO interaction was significant for powerful group members [*b* = -.31, *SE* = .11, *t* (193) = -2.78, *p* = .006, 95% BC bootstrap CI of -1.05 and -.18] but not for external observers [*b* = -.03, *SE* = .11, *t* (193) = -.29, *p* = .773, 95% BC bootstrap CI of -.48 and .36]. Simple slope analyses showed that when power structures were illegitimate, higher SDO among the powerful was associated with descriptions of the powerless as less competent, *b* = -.51, *SE* = .15, *t* (193) = -3.45, *p* < .001. When power structures were legitimate, there was no effect of powerful group members' SDO on descriptions of competence, *b* = .11, *SE* = .17, *t* (193) = .65, *p* = .518.

Moral. Analyses revealed that the effects of perspective, *b* = .23, *SE* = .08, *t* (193) = 3.04, *p* = .003, 95% BC bootstrap CI of .16 and .76, and of SDO, *b* = -.26, *SE* = .08, *t* (193) = -3.19, *p* = .002, 95% BC bootstrap CI of -.42 and -.10, were significant. Effects of legitimacy, the interaction between perspective and SDO, and the three-way interaction were not significant (all *t*s > -.81, *p*s > .417). However, the interaction between SDO and legitimacy was significant, *b* = -.23, *SE* = .08, *t* (193) = -2.83, *p* = .005, 95% BC bootstrap CI of -.78 and -.14 (see Figure 5.5). This revealed significant effects of legitimacy within low SDO [*b* = .26, *SE* = .11, *t* (197) = 2.39, *p* = .018, 95% BC bootstrap CI of .04 and .48], but not within high

SDO levels [*b* = -.14, *SE* = .11, *t* (193) = -1.27, *p* = .205, 95% BC bootstrap CI of -.36 and .08]. Accordingly, participants low in SDO described the powerless as more moral when the power structure was illegitimate than when it was legitimate.

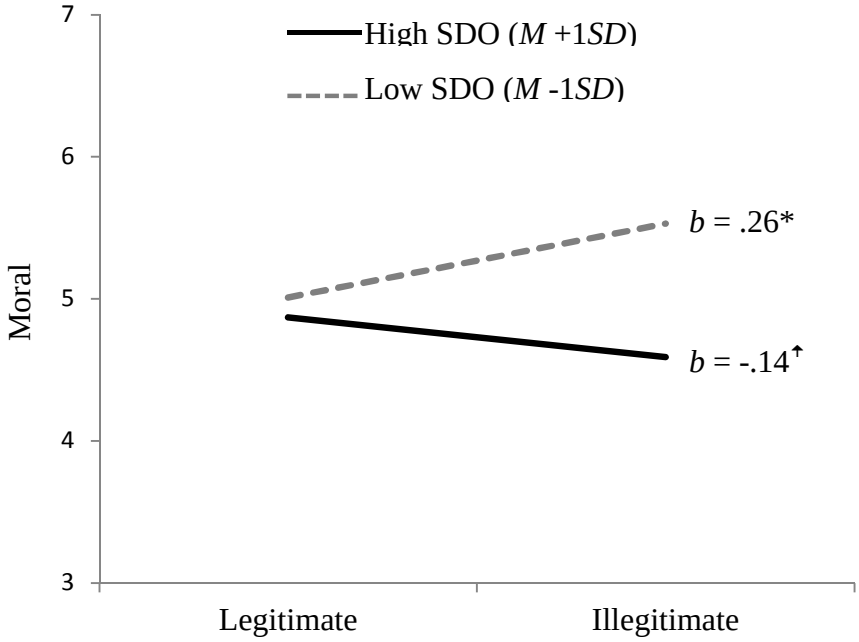

Figure 5.5. Descriptions of the morality of the powerless as a function of legitimacy of power structures and SDO. * *p* < .05, ↑ *p* = 205.

A significant interaction between legitimacy and perspective was also found, *b* = -.16, *SE* = .08, *t* (193) = -2.16, *p* = .032, 95% BC bootstrap CI of -1.26 and -.06 (see Table 5.2). Simple effects analyses revealed that when the power structure was legitimate, powerful group members described the powerless as more moral (*M* = 5.36, *SD* = .93) than did observers (*M* = 4.56, *SD* = .94), *F* (1, 199) = 13.08, *p* < .001, η^2_p = .062. When the power structure was illegitimate, there was no reliable difference between how powerful group members and observers described the morality of the powerless (respectively, *M* = 5.10, *SD* = 1.29; *M* = 4.97, *SD* = 1.28), *F* (1, 199) = .32, *p* = .571, η^2_p = .002. In addition, external observers tended to describe the powerless as more moral when power structures were

illegitimate than when they were legitimate, F (1, 199) = 3.55, p = .061, η^2_p = .018. Powerful group members equally described the powerless in terms of their morality when power structures were legitimate and illegitimate, F (1, 199) = 1.22, p = .270, η^2_p = .006.

Table 5.2

Means and Standard Deviations for Perceived Morality of the Powerless, as a Function of Perspective and Legitimacy

	Legitimate Power Structures		Illegitimate Power Structures	
	M	(SD)	M	(SD)
Observers	4.56a	(.94)	4.97b	(1.28)
Powerful	5.36b	(.93)	5.10b	(1.29)

Sociable. Analyses revealed that only the effect of SDO was significant, b = -.16, SE = .08, t (193) = -2.08, p = .039, 95% CIs = -.31 and -.008: Higher levels of SDO were associated with descriptions of the powerless as less sociable. There were no further main or interactive effects on this variable (all ts < 1.15, ps > .253).

Mediation analyses. Past work suggests that advantaged group members might be more or less supportive of disadvantaged group members depending on the emotions that are elicited by the focus of attention of the advantaged. For example, when inequality is perceived to be illegitimate, advantaged group members are likely to experience sympathy when they focus on outgroup disadvantage (vs. ingroup advantage) which, in turn, renders them more likely to show support for the disadvantaged (Harth et al., 2008; Iyer et al., 2003). In a similar vein, it is possible that reduced concerns for the interests of the powerless (and increased concerns for the ingroup's interests) might lead to behavioural intentions that favour the ingroup *vis-à-vis* the outgroup. Although we did not assess participants' emotions,

there is still reason to believe that the extent to which participants are focused on the outgroup's and on the ingroup's interests might mediate the effects of perspective, legitimacy, and SDO on their helping intentions and descriptions of the powerless.

The analyses reported above show that participants' concerns for the powerless outgroup (but not for their own ingroup) displayed an interactive pattern that paralleled those observed for their willingness to offer low-cost autonomy-related help and for the descriptions of the competence of the powerless. As such, participants' outgroup-focused concerns was a plausible mediator of low-cost autonomy-related help and descriptions of competence. Indeed, inspection of correlations between these measures (see Table 5.3) revealed that outgroup-focused concerns was positively correlated with low-cost autonomy-related help ($r = .38$, $p < .001$), and with descriptions of competence ($r = .28$, $p < .001$)[8]. We therefore tested whether participants' outgroup-focused concerns mediated the effects of perspective, legitimacy, and SDO on their willingness to offer low-cost autonomy-related help and on their descriptions of the competence of the powerless by conducting two mediated moderation analyses via PROCESS Model 12 (Hayes, 2013). These analyses followed bootstrapping procedures—a method that is not dependent upon a normal sampling distribution (see Preacher & Hayes, 2004; Shrout & Bolger, 2002), and generated 5000 random bootstrap samples with replacement from our initial sample set ($N = 201$). Perspective and legitimacy were coded as indicated for the moderation analyses (reported above), and SDO was mean centred prior to analysis.

Do outgroup-focused concerns mediate the effects of perspective X legitimacy X SDO on the willingness to offer low-cost autonomy-related help? Analyses revealed the expected perspective X legitimacy X SDO interaction effect on outgroup-focused concerns, and that the willingness to offer low-cost autonomy-related help was significantly predicted

[8] Other significant correlations were found but these do not explain the three-way interaction, which is the focus of this study.

by outgroup-focused concerns, $b = .38$, $SE = .08$, t (192) = 4.67, $p < .001$. Moreover, this analysis revealed that the conditional indirect effect of the perspective X legitimacy X SDO interaction on willingness to offer low-cost autonomy-related help via outgroup-focused concerns was negative and different from zero, $b = -.08$, $SE = .05$ with a 95% bias corrected (BC) bootstrap confidence interval (CI) of -.19 to -.01. Analysis of the pathways revealed that this indirect path was significant when participants were powerful group members high in SDO (one *SD* above the mean), $b = -.19$, $SE = .09$, 95% BC bootstrap CI of -.40 and -.05, but not when they were observers high in SDO, $b = -.01$, $SE = .07$, 95% BC bootstrap CI of -.13 and .16. For participants low in SDO (one *SD* below the mean), the indirect path was significant when participants were powerful, $b = .09$, $SE = .05$, 95% BC bootstrap CI of .01 and .21, but not when they were observers, $b = -.01$, $SE = .06$, 95% BC bootstrap CI of -.12 and .14. Accordingly, under conditions of illegitimacy, powerful participants high in SDO were less willing to offer low-cost autonomy-related help because they were less focused on the interests of the powerless. By contrast, under the same conditions of illegitimacy, powerful participants low in SDO were more willing to offer low-cost autonomy-related help because they were also more focused on the interests of the powerless.

Do outgroup-focused concerns mediate the effects of perspective X legitimacy X SDO on descriptions of the competence of the powerless? Analyses revealed the expected perspective X legitimacy X SDO interaction effect on outgroup-focused concerns, and that the description of the competence of the powerless was significantly predicted by outgroup-focused concerns, $b = .13$, $SE = .07$, t (192) = 1.97, $p = .050$. Moreover, this analysis revealed that the conditional indirect effect of the perspective X legitimacy X SDO interaction on descriptions of the competence of the powerless was negative and different from zero, $b = -.03$, $SE = .02$ with a 95% bias corrected (BC) bootstrap confidence interval (CI) of -.08 to -.01. Analysis of the pathways revealed that this indirect path was significant when

participants were powerful group members high in SDO (one *SD* above the mean), *b* = -.07, *SE* = .04, 95% BC bootstrap CI of -.18 and -.01, but not when they were observers high in SDO, *b* = -.01, *SE* = .03, 95% BC bootstrap CI of -.07 and .05. For participants low in SDO (one *SD* below the mean), the indirect path was significant when participants were powerful, *b* = .03, *SE* = .02, 95% BC bootstrap CI of .01 and .10, but not when they were observers, *b* = -.01, *SE* = .02, 95% BC bootstrap CI of -.04 and .07. Accordingly, under conditions of illegitimacy, powerful participants high in SDO described the powerless as more incompetent (or less competent) because they were less focused on the interests of the powerless. By contrast, under the same conditions of illegitimacy, powerful participants low in SDO described the powerless as more competent because they were also more focused on their interests.

Table 5.3

Correlations Between Overall Willingness to Help the Powerless, Dependency-related Help, High-Cost Autonomy-Related Help, Low-Cost Autonomy-Related Help, Outgroup-Focused Concerns, Ingroup-Focused Concerns, Competence, Morality and Sociability in Experiment 6.

	1	2	3	4	5	6	7	8	9
1. Overall Help	-								
2. Dependency-Help	.42**	-							
3. High-Cost A. Help	.34**	.27**	-						
4. Low-Cost A. Help	.22*	-.01	.31**	-					
5. Outgroup F. Concerns	.59**	.18*	.39**	.38**	-				
6. Ingroup F. Concerns	.30**	.26**	.05	-.12	.09	-			
7. Competence	.21*	.15*	.14	.19*	.28**	.02	-		
8. Morality	.28**	.03	.09	.18*	.44**	.08	.30**	-	
9. Sociability	.22*	.04	.19**	.19*	.40**	.15*	.11	.56**	-

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

Discussion

The findings of Experiment 6 demonstrate that power holders can attempt to address threats to their superior standing by strategically providing help to the powerless. In so doing, these results support our predictions that effects of illegitimacy on power holders' helping intentions are dependent on their SDO: Relative to legitimate power structures, when these were illegitimate power holders' SDO was negatively associated with their willingness to provide low-cost autonomy-related help to powerless groups. Surprisingly however, high

SDO powerful group members were willing to provide low-cost autonomy-related help to the same extent in illegitimate and in legitimate conditions. Results also revealed that power holders' descriptions of the competence of the powerless followed a similar pattern to that found their helping intentions. Specifically, when power hierarchies were illegitimate, powerful group members high in SDO were more willing to derogate the competence of the powerless than powerful group members low in SDO. When power was legitimate, SDO did not affect powerful group members' descriptions of the powerless. Additionally, power holders high in SDO were more willing to derogate the competence of the powerless when power structures were illegitimate than when they were legitimate.

Moreover, Experiment 6 also provides insights into potential psychological mechanisms that might be responsible for these effects. Specifically, the results of this study allows us to establish that participants' willingness to offer low-cost autonomy-related help to the powerless and their willingness to derogate the competence of the powerless are associated with their concerns for the powerless outgroup. Results show that power holders (but not observers) displayed different levels of concern for the powerless depending on conditions of legitimacy and SDO. Accordingly, when power structures were illegitimate, powerful group members high in SDO (but not those low in SDO) were less concerned about protecting the powerless than when their power was legitimate. Importantly, results show that powerful group members' concerns for the powerless mediated the effects of legitimacy of power structures and SDO on intentions to offer low-cost autonomy-related help and on descriptions of competence. This suggests that powerful group members high in SDO adjust their offers of help and their descriptions of the powerless according to their motivation to protect the powerless.

These findings therefore support and extend the predictions implied by the IHPR model because they empirically demonstrate that powerful group members strategically

adjust their helping intentions according to their inclinations to justify social inequalities (SDO) but only when the possibility of power change was imminent (i.e., when power structures were illegitimate). Furthermore, these findings also provide insights into the concerns that drive power holders' help offers and how these concerns shape their willingness to provide help and the expectations they have of the powerless (that is, how the powerless are described).

On the other hand, and consistent with Experiment 5, results revealed that the interactive effect between SDO and legitimacy of power structures did not determine observers' helping intentions, concerns, and descriptions of the powerless. Results revealed a main effect of observers' SDO on their ingroup-focused concerns. However, this was the only measure affected by observers' SDO and, at this stage, the explanation for this single finding is unclear. Perhaps future research should test whether this single finding is replicated and shed light on why observers high in SDO become more focused in their ingroup interests.

Furthermore, results of Experiment 6 also did not support our predictions that illegitimate (vs. legitimate) power structures would render observers more willing to help the powerless. However, an examination of the measures used to assess observers' helping intentions might provide an explanation to this inconsistency. In Experiment 5, we asked observers about their willingness to help powerless and powerful groups, which might have created a comparison regarding the target of help. By contrast, in Experiment 6 we asked observers about their helping intentions towards the powerless, in which case the powerful versus the powerless comparison was not present. Thus, Experiment 5 might have offered a more direct solution to restore a legitimate hierarchy in that observers could clearly side by the powerless (vs. the powerful) and help them reverse the illegitimate power structure. In the absence of a clear solution (Experiment 6), observers might have resorted to more economic and default information processes (Guinote, 2007a, 2007b, 2010) and allowed their help

intentions to be guided by, for example, to the expected costs associated with providing assistance.

General Discussion

Recent social-psychological work suggests that powerful group members can reinforce social hierarchies through actions that are apparently positive: The powerful provide help to the powerless but they do so in strategic ways, such that the powerless' dependency on power holders is promoted and hierarchies are perpetuated (e.g., Nadler, 2002; Nadler et al., 2009; Nadler & Halabi, 2006).

With the research reported in this chapter, we suggest that individual inclinations (SDO) and structural factors (perceived legitimacy of power structures and individuals' position in the power hierarchy) might shed light on when and why help is provided to the powerless such that power structures are reinforced. Specifically, we propose and demonstrate that SDO determines the helping intentions of power holders (who are embedded in the power structure) but only when power structures are illegitimate. Experiment 6 tested and supported this prediction: When power was illegitimate, powerful group members' SDO was negatively associated with their intentions to provide the powerless with low-cost autonomy-related help (but not dependency- and high-cost autonomy-related help). Consistently, under these very same conditions of illegitimacy, powerful group members' SDO was positively associated with negative descriptions of the competence of the powerless. Clarifying these help-offering patterns and these descriptions of the powerless, our findings indicated that when power structures were illegitimate, power holders' SDO was also negatively associated with concerns for the protection of the powerless which led powerful group members to reduce low-cost autonomy-related help to the powerless and to increase the derogation of their competence (Experiment 6). On the other hand, perceptions of legitimacy in combination with individual differences in SDO did not guide helping

intentions of those who are external to power hierarchies, i.e., third party observers (Experiments 5 and 6).

We thus go beyond past research in two ways. First, we empirically demonstrate that the interplay between SDO and perceived legitimacy of power structures shapes how power holders provide help to the powerless, but also influences the concerns they hold when providing help, and the description they make of the recipients of help. Second, we demonstrate that this combined effect of SDO and perceived legitimacy is dependent on the help provider's position in power structures and, thus, is reflective of power-related calculations.

The Interplay Between Legitimacy and SDO in Shaping How Power Holders Help the Powerless

This chapter demonstrates that, as assumed by the IHPR model (e.g., Nadler, 2002; Nadler & Halabi, 2006), socially advantaged groups can be strategic about the way they provide help to the disadvantaged, depending on the Legitimacy-SDO interplay. These findings are consistent with Chapter 3's findings regarding the effects of legitimacy on motivation, as well as with previous work on this topic (e.g., Keltner, Gruenfeld, & Anderson, 2003; Lammers, Galinsky, Gordijn, & Otten, 2008). Because illegitimate (vs. legitimate) power structures threaten the current organization of social hierarchies, powerful group members become more avoidant of losing their superior standing (e.g., Ellemers et al., 1990; Tajfel & Turner, 1979). Consequently, they are likely to be prone to reinforce their threatened power. This is especially likely when they are also individually inclined to protect the status quo, that is when they are high in SDO (Sidanius & Pratto, 1999). This chapter demonstrates that one way of maintaining current power differentials is by promoting the dependency of the powerless. On the one hand, and consistent with the previous chapter's findings regarding the effects of legitimacy on behaviour and with past research on

intergroup helping (e.g., Halabi et al., 2008; Nadler, 2002; Nadler et al., 2009), power holders can strategically engage in pro-social behaviour, for example, by reducing forms of help that empower the powerless (such as low-cost autonomy-related help) and, thus, boost the powerless' dependency on power holders. On the other hand, they can devalue the competence of the powerless—a dimension that is highly associated with power and control, more so than morality and sociability (e.g., Cuddy, Fiske, & Glick, 2008; Fiske et al., 2007; Fiske, Xu, Cuddy, & Glick, 1999). Indeed previous research shows that powerful individuals who think their power is precarious not only evaluate their subordinates more negatively but also spend more time looking for negative, stereotypic traits of their subordinates (e.g., Georgesen & Harris, 2006; Rodríguez-Bailón, Moya, & Yzerbyt, 2000). It thus seems that by depriving the powerless of empowering forms of help and by derogating their competence, high SDO power holders might attempt to minimize power threats imposed by illegitimate power structures and, eventually, might prevent the opportunity for the powerless to strive for a better position and, perhaps, reverse the existing structure of power.

The propensity for power holders to reduce offers of empowering forms of help to the powerless, and their propensity to derogate the competence of the powerless, can be further understood as a reflection of their reduced concerns for the welfare of the powerless, which were evident under the very same conditions of illegitimacy and high SDO. The more power holders perceive threats to their power, the more likely they are to attempt to secure their superiority, even at the expense of powerless outgroups. Power-holders might thus reduce the focus they place on the disadvantage of the powerless when perceiving threats to their superiority and, consequently, engage in behaviour that does not support the disadvantaged. Indeed it has been demonstrated that the protection of social hierarchies often incurs costs for the disadvantaged: They are excluded from team work; they are granted limited access to information that is crucial to certain tasks; and their needs are less likely to be taken into

account when the advantaged make decisions (e.g., Maner & Mead, 2010; Nicol, 2009; Son Hing, Bobocel, Zanna, & McBride, 2007). Thus, it seems that power threats, such as those imposed by illegitimate power structures, reduce the concern that powerful group members might have about the situation of the powerless, especially among those who are highly motivated to protect the status quo (high SDO). In turn, lowered concerns about the powerless direct power holders to engage in behaviour that enhances the dependency of their subordinates.

In sum, the willingness to engage in helping behaviour, although positive on the surface, might cover attempts to thwart changes in the power structure such that social hierarchies are maintained and power holders' superiority is consolidated.

Strategic Uses of Help Reflect Power-Related Calculations

One finding of this chapter that is particularly interesting is the fact that the interactive legitimacy X SDO effect on the strategic use of low-cost autonomy-related help, and on the descriptions and concerns for the powerless, was only evident amongst powerful group members. When participants were observers these interactive effects did not reach significance (Experiments 5 and 6). There was however a suggestion that SDO was negatively associated with observers' willingness to provide low-cost autonomy-related help (Experiment 6), but this evidence emerged after inspection of the simple slopes of a non-significant legitimacy X SDO interaction (for observers). This seems to suggest either that the effects of SDO are sporadic and unreliable for observers, or that intentions to provide the powerless with specific forms of help might depend not only on situational and individual factors but also on expectations regarding one's power within social hierarchies, especially, on opportunities to uphold a superior social standing. Unlike powerful group members, observers are expected to be un-invested in the (inter)dependency of external power positions, which might limit their power-related concerns about these external structures of

status quo, as well as the extent to which helping might benefit their own position in this structure.

Our findings suggest that observers can be strategic when helping the powerless, but only when they wish to reinstate legitimacy to unfair social hierarchies (Experiment 5). On the other hand, and in contrast to social dominance theory, the fact that SDO did not influence observers' responses might indicate that this individual difference variable is not reflective of a generalised desire to legitimise stratified social environments. According to this theory (e.g., Sidanius & Pratto, 1999), SDO is a general attitudinal inclination for group-based inequality that is expected to guide the behaviour of individuals and groups towards the legitimization of power and status differences. However, our findings seem to suggest that structural factors concerning one's position in power structures can limit the activation of SDO. Other research has suggested that SDO is actually better conceptualised as a specific group-based ideology, rather than a generalised orientation (Schmitt et al., 2003). In fact, past work suggests that rather than an individual characteristic that might remain absolute across situations (e.g., Altemeyer, 1998; Reynolds, Turner, Haslam, & Ryan, 2001), SDO is likely to manifest itself differently in different situations and serve as a moderator of socio-structural variables (see Chen Lee-Chai, & Bargh, 2001; Danso & Esses, 2001; Guimond, Dambrun, Michinov, & Duarte, 2003; Pratto & Shih, 2000; Schmitt & Branscombe, 2003), or might even vary according to the social context, functioning as a mediator of the effects of situational variables (see Guimond et al., 2003). In this chapter, there is evidence suggesting that SDO indeed moderates the responses of the illegitimately powerful, but this effect is mitigated when the powerful hold a legitimate position, or when participants assume the perspective of a third party observer. Although we did not find direct or interactive effects of perspective and legitimacy on SDO, the pattern of responses seems to suggest that SDO indeed moderates the effects of situational factors (i.e., the illegitimacy of power relations),

but might also be dependent on these factors (i.e., whether people take a powerful vs. observer perspective). Even though the current chapter was not intended to examine the conceptualization of SDO, it is interesting to acknowledge that our findings seem to support the idea that, far from being a general motivation to protect the status quo, certain structural factors might impact the extent to which SDO guides individuals' behaviour, at least in the context of intergroup helping. Instead, the relevance of SDO in guiding individual orientations towards the powerless seems to depend on whether the individual actually occupies a position of power in the social structure that defines their relationship with the powerless, and thus whether or not they hold expectations concerning their power within hierarchies.

Future Research

Interestingly, our findings did not reveal significant main or interactive effects of SDO and perceptions of legitimacy on the willingness to provide dependency-oriented help. This was unexpected given that past research shows that advantaged group members resort to dependency-related help when threats to their advantaged are perceived (e.g., Nadler, 2002; Nadler et al., 2009). Furthermore, results in this chapter revealed autonomy-related forms of assistance were favoured over dependency-related help, especially less costly forms of autonomy-related help (all ps $< .001$), irrespective of participants' perspective (power holder vs. observer), perception of legitimacy, and SDO. This might suggest that help choices can also stem from costs that are expected to be associated with specific forms of assistance. In fact, people often make assessments of the costs that providing help has for themselves (e.g., Pilivian et al., 1981). Dependency-related help might be perceived to be more costly in terms of resources, time, and effort than autonomy-related forms of help. It is thus possible that, given the option, help providers are generally more prone to avoid forms of assistance that are perceived to carry more costs and, instead, favour less costly forms of help.

Alternatively, help providers might succumb to normative pressures and endorse types of help that reflect how they think help should be provided versus how they wish to provide help. Help is often driven by genuine care, empathy, and concern for those who receive it (e.g., Omoto & Snyder, 1995; Stürmer, Snyder, & Omoto, 2005). Given that dependency-related help might convey attempts to control the powerless and promote their dependence, power holders might opt to provide forms of help that better display the conventional help concerns (i.e., empathy and care for the powerless) which, by comparison, might be better portrayed by autonomy-related help. Future research should thus examine whether expectations regarding specific forms of assistance (for example, cost-benefit analyses and beliefs of how help should be provided) impact on this calculated behaviour.

On the other hand, by using hypothetical scenarios to examine the dynamics underlying intergroup help among groups participants know little about, we were able to demonstrate that these dynamics are not dependent on stereotypic expectations regarding ingroup and outgroup members but, rather, can be transversal to various power structures. However, dependency- and autonomy-related help might hold different meanings and implications when other, more realistic, contexts are considered. For instance, the extent to which help providers believe themselves to be capable of providing specific types of help and that these will lead to the expected outcome (efficacy and outcome expectancies, Bandura, 1977, 1986, 1989), might vary depending on the requirements of the context. On the other hand, dependency- and autonomy-related help imply distinct notions of dependency, that is, chronic and transient dependency, respectively. However, the specificities of the context might modify this notion. Autonomy-related help, for example, might be provided to solve a specific problem but, in a different context, might require more effort and a continued relationship with the help recipient. Therefore, the multi-determined nature of helping intentions and behaviour should also be considered in future research.

In sum, the research reported in this chapter provides further evidence that the perceived legitimacy of social structures modifies the perception of power relations. Extending the previous chapters and past research on intergroup helping, we also demonstrate that perceived legitimacy combines with individual inclinations to protect the status quo in shaping how powerful group members reinforce their power through strategic uses of help. Notably, we believe that we challenge past research on intergroup helping by demonstrating that the position of help providers in relation to power structures also determines their motivation to engage with social hierarchies and, ultimately, how they employ helping behaviour. More generally, whereas the received wisdom is that threatened power holders engage in self- and group-serving behaviours to (re)gain power and control often in hostile manners (e.g., Goodwin et al., 2000; Richeson & Ambady, 2003; Sachdev & Bourhis, 1985), our research supports the idea that power holders can also attempt to achieve the same outcome (i.e., maintenance of power structures) in more indirect ways, and provides evidence for the mechanisms involved: By engaging in a more positive and outwardly benign behaviour, such as providing help (see also Jackman, 1994; Glick & Fiske, 2001a),

In conclusion, these findings might offer practical insight into the dynamics at play when individuals and group members attempt to avert social change, especially in ways that might be less resisted and opposed to, that is by providing assistance to the disadvantaged.

Chapter 6: General Discussion

The aim of the research reported in this thesis was to contribute to an understanding of how powerless and powerful individuals perceive and experience social inequalities, and how they are motivated to respond to them. The central theme of this thesis was to examine the situational conditions—specifically, perceptions of the legitimacy of power—that might help generate or avert a possible power change.

Across six studies, I have examined how the position that individuals occupy within the power structure, and how their perceptions of the legitimacy of this structure, impact on their response to power imbalances. After introducing the key theoretical concepts in Chapters 1 and 2, in Chapters 3 and 4 I focused on how interpersonal power and the perceived legitimacy of power structures combine to affect individuals' motivation and power-related behaviour, respectively. In Chapter 5, I focused my investigation on pro-social behavioural intentions (i.e., offers of help to the powerless) and examined how these can be strategically used by powerful group members to prevent power change, depending on perceptions of legitimacy and on individual differences in social dominance orientation.

Separately, each of these empirical chapters might represent three independent programs of research, each with its own message, and each situated within distinct areas of social psychological knowledge—that is, research on individual motivations, on interpersonal behaviour, on intergroup help. However, when taken together, this work offers consistent findings that point towards two general conclusions: (1) The effects of power on individual responses are not invariant but, instead, can be modified by perceptions of legitimacy; and (2) responses to illegitimate power are strategic and reflective of specific identity-related concerns.

In the following section, I examine the specific results of the studies reported in this thesis, and discuss the theoretical implications of the present work in terms of their novelty,

as well as by reference to the gaps in past research that were identified in the introductory chapter.

Theoretical Implications

(Il)legitimacy of power modifies motivations and behaviour. In Chapter 2, I reviewed research examining how interpersonal and intergroup power impacts on individuals' and group members' behaviour. Research on the effects of interpersonal power (e.g., Dovidio & Ellyson, 1985; Keltner, Gruenfeld, and Anderson, 2003; Keltner, Van Kleef, Chen, & Kraus, 2008) suggests that individuals' motivations and behaviour are explained by their experiences of power. Specifically, high power induces approach motivation, activates approach-related behaviour, and increases tendencies to engage in power-signalling, whereas low power triggers avoidance motivation and activates avoidance-related behaviour, such as enacting powerlessness. Research on social identity and intergroup relations (e.g., e.g., Ellemers, van Knippenberg, & Wilke, 1990; Tajfel & Turner, 1979), by contrast, suggests that high- and low-status group members might adjust responses to their social position as a function of how they perceive the social structure. According to this view, illegitimate (vs. legitimate) hierarchies raise questions regarding the deservingness of social inequalities. This results in increased motivation to protect that status quo among high-status members, and in an increased motivation to improve current low standing among low-status members. Outlined in this way, the first perspective suggests a linear link between power, approach, and power displays (and powerlessness, avoidance, and powerlessness displays), whereas the second perspective presents a more malleable picture of individual responses. However, to date, this more malleable picture has not been furnished with direct evidence regarding the motivational states of powerful and powerless individuals, or examined their link to the behaviours that individuals might use when promoting or preventing social change. In this work, I intended to combine both perspectives to provide a more nuanced and detailed view

of how power affects motivation and behaviour. This combination allowed me to examine whether perceptions of legitimacy can modify the effects of power on experiences of approach and avoidance, and on enactment of power and powerlessness.

These basic ideas were tested in the research reported in Chapters 3 and 4. The findings reported there demonstrate that perceptions of illegitimate power do change low- and high-power individuals' responses, relative to when power is legitimate (Experiments 1, 2, 3, and 4). Consistent with research on the effects of interpersonal power, the powerless displayed more avoidance and enacted their lack of power to a greater degree, when this position was seen as legitimate. However, when power was seen as illegitimate, the powerless displayed more approach and engaged in power-seeking behaviour. Specifically, under these conditions, the powerless approached external cues of power and increased physical distance from an illegitimately powerful partner. Additional measures assessing behavioural entitlement and impression management goals (Experiments 2 and 4) also revealed variations depending on the perceived legitimacy of power positions. When power was illegitimate (vs. legitimate) the powerless expressed more entitlement and a greater desire to be respected (vs. liked). Thus, in line with research on intergroup relations, illegitimate power modified the responses of powerless individuals, relative to when power was legitimate.

The findings reported in Chapters 3 and 4 indicate that powerful individuals are also responsive to perceptions of legitimacy. Specifically, and consistent with research on the effects of interpersonal power, the powerful displayed more approach and enacted power more clearly (i.e., they signalled their superior standing), when this position was seen to be legitimate. Illegitimate power structures on the other hand, led power holders to display more avoidance and to attend to external cues of powerlessness, while increasing physical closeness to their illegitimately powerless partner. The measure assessing behavioural

entitlement (Experiment 2) also followed this pattern. When power was illegitimate (vs. legitimate) the powerful behaved with less entitlement.

However, power holders' impression management goals were unaffected by perceptions of legitimacy (i.e., irrespective of legitimacy conditions, they wanted to be seen as competent, moral, and sociable). This might be explained by the fact that powerful individuals seek information that is relevant for their goals in the context to a greater extent than do powerless individuals (Guinote, 2007b, 2010). In Experiment 4, power holders had the task to perform as a Director (i.e., leader), which for them might have implied a good performance in competence, morality, and sociability (Cuddy, Glick, & Beninger, 2011). Thus, although their behaviour in this study was responsive to variations in legitimacy, power holders might also have been sensitive to the alleged purposes of the experiment, that is, the goal to perform well as a Director (which might have reflected on the high ratings of the self-report measure of impression goals in both conditions of legitimacy).

As such, the results reported in this thesis present compelling evidence, across a variety of studies and measures, that the perception of legitimacy modifies responses to power and to powerlessness, as suggested by research on intergroup relations. However, the present work also advances past research in various ways. With regard to motivation, although past work has suggested that perceptions of legitimacy can modify the effect of power on motivations (Lammers, Galisnky, Gordijn, & Otten, 2008), this work demonstrated variations in the extent to which individuals experience approach only. That is, past work has shown that the legitimacy of power affects the extent to which individuals experience approach motivations, but has failed to demonstrate that this can also be reflected in avoidance, and as such that the motivational orientations of powerful and powerless can actually reverse. Indeed, new to my research setting was the possibility to assess both approach and avoidance motivations among powerful and powerless individuals. By using

this method, the results reported here demonstrate that illegitimate power differentials, rather than just producing variations in approach, consistently reverse the power-approach and the powerlessness-avoidance links.

Also, contributing to past research, my work sought to directly assess motivational states, rather than inferring these based on cognitive processes, emotions, and behavioural intentions that are assumed to relate to these motivations. In the research reported in this thesis, I adapted a well-established means of manipulating approach and avoidance to measure these states. Past research has used the mazes I used in Chapter 3 to induce approach and avoidance tendencies, and in so doing has demonstrated the link between these mazes and these motivational states (Förster, Friedman, Özelsel, & Denzler, 2006; Friedman & Förster, 2001). I capitalised on existing knowledge of this association, but turned it on its head to examine to what extent participants preferred the maze that fits an approach state versus the maze that fits an avoidance state, as a function of power and legitimacy. This, in itself, is an innovative aspect of this work and a contribution to social psychological knowledge regarding individual motivation.

To my knowledge, the work presented here provides the first account of the behaviour of powerful and powerless individuals during social interactions, under different conditions of legitimacy. Past research, for example research on collective action, had examined behavioural tendencies, intentions, or retrospective reports, but a link between legitimacy perceptions to actual behaviour during interpersonal interactions had not yet been made. This thesis thus further advances past work investigating how individuals respond to the possibility of power change, by moving beyond attitudes and behavioural intentions and towards a closer examination of the actual behaviour that is used to secure or obtain power in interactive settings.

Finally, it is important to note that past research often assesses motivations and behavioural intentions when power structures have already been established. Research on collective action focuses on ongoing relations, as well as on effects of perceived legitimacy, but it does not typically isolate effects of power, or their motivational underpinnings. On the other hand, experimental research on the effects of interpersonal power tends to focus on contexts in which power positions are unlikely to change, and in which there is little opportunity to dispute these due to the lack of ongoing interaction between the powerful and powerless. By combining research on the effects of interpersonal power on motivations and behaviour with research focusing on the opportunities provided by ongoing social contexts (that is, research on social identity theory), power can be situated within continued relationships between individuals and groups, such that power structures can be hoped, or feared, to change. In this thesis, although participants did not really engage in interactions with one another, they expected to do so and, thus, they were given the chance to project their goals to secure or change the power structure.

In sum, the findings reported in this thesis indicate that perceptions of legitimacy moderate the effects of social power and, importantly, demonstrate that the motivational pattern was mirrored by behavioural responses. Specifically, when power was illegitimate (vs. legitimate): The powerless experienced more approach, displayed increased entitlement, and engaged in power-seeking behaviour; in contrast, the powerful experienced more avoidance, displayed diminished entitlement, and opted not to signal their power. These findings thus suggest that the subjective experience of (il)legitimate power impacts on the motivations of both high- and low-power individuals and that this, in turn, is reflected on their behaviour. Having documented these findings, in the next section I will discuss the potential psychological mechanisms that might be responsible for the effects observed.

Strategic Responses to Illegitimate Power. Aside from demonstrating that the legitimacy of power modifies the responses of powerful and powerless individuals, an additional aim of this research was to shed light on the psychological mechanisms responsible for these effects. One conceivable interpretation of the patterns of behaviour shown in this thesis is that individual responses simply reflect how they experience their power when this is illegitimate. For example, it is conceivable that compared to legitimate power, illegitimate power might reduce feelings of power among the powerful and increase feelings of power among the powerless. It is further possible that these modified feelings of power determine the behavioural responses observed. If so, then it could be said that power has linear effects on motivation and on behavioural responses, since these would have been produced by a reversal of feelings of power, rather than by a reversal of responses to power/powerlessness—which is my contention. However, this explanation was ruled out by the findings reported in Chapters 3-5. Specifically, legitimacy of power did not affect high and low power individuals' perception of their own power (Experiments 2, 3, 4, and 6), but it did affect their motivational and behavioural responses. This suggests that the effect of legitimacy on powerful and powerless individuals' responses was not guided by modified feelings of power. Instead, I propose that these responses are guided by more strategic concerns.

According to research inspired by social identity theory, illegitimacy fundamentally changes dynamics in power (and status) structures and elicits different concerns, relative to when these are legitimate (e.g., Ellemers et al., 1990; Tajfel, 1978; Tajfel & Turner, 1979). Research reported in this thesis seems to be consistent with this idea, suggesting that illegitimate power has different implications for social agents that vary in their position (the powerless and the powerful) and in relationship to others within the social setting (powerful actors versus observers). These implications for one's social position, in turn, leads to

strategic responses aimed at meeting the concerns of pursuing power, protecting power, or restoring legitimacy.

With respect to the powerless, in a study examining power-related behaviour (Experiment 4), illegitimate (but not legitimate) power led the powerless to award greater importance to being respected (vs. liked) by their powerful interaction partner and this, in turn, made the powerless increase physical distance from them. In this very same study, the powerless also claimed external cues to power (that is, they claimed objects that are likely to signal power to others) when this was illegitimate (vs. legitimate). Taken together, these results suggest that, for the powerless, illegitimacy of power implies an opportunity to pursue power and respect and, importantly, it is also an opportunity to behaviourally communicate these goals to others during social interactions. Furthermore, this interpretation is consistent with findings for motivation and entitlement in Chapter 3: Because illegitimacy signals an opportunity to change power positions, the powerless might become more attuned to the possibility of approaching respect and power, and feel more entitled to it. Consequently, they engage in approach-related behaviour and communicate their desire for respect, such as by claiming external cues to power and by displaying behaviour that is typically associated with power holders (i.e., being more distant).

On the other hand, research reported in this thesis suggests that power holders become protective (that is, they engage in strategies aimed at securing their social standing) of their power when this is illegitimate and thus under threat, which is consistent with research on social identity and intergroup relations (e.g., Ellemers et al., 1990; Tajfel, 1978; Tajfel & Turner, 1986). The finding that the powerful displayed avoidance when power was illegitimate, compared to when it was legitimate (Experiments 1 and 2), seems to be in line this idea. However, the studies in this thesis also suggest that power holders may need to be flexible and follow different strategies to protect their powerful position depending on the

context. For example, when power is illegitimate, although the powerful may need to appease the powerless when they expect to continue interacting with them (as shown in Experiments 3 and 4), if there is no repeated interaction they may simply behave in ways that reflect the perception that they might not deserve their position (e.g., low entitlement, as shown in Experiment 2). Of course this comparison is not directly made in the studies reported in this thesis, so it is an issue to be directly investigated in future research. As such, this thesis seems to suggest that power holders might strategically use their behaviour to maintain their power when this is deemed illegitimate. This idea seems to be in line with previous research on intergroup contact. For instance, Saguy, Dovidio, and Pratto (2008) showed that even though advantaged group members are more willing to address topics that are favoured by the disadvantaged when power disparities are illegitimate (vs. legitimate)—that is, topics that might highlight power-based inequalities, advantaged group members' desire to actually change power relations does not increase with the perception of illegitimacy (Saguy et al., 2008). Thus, this research combines to suggest that by appeasing the powerless (Experiments 3 and 4), power holders might communicate a desire for a positive interaction, while perhaps expecting to ameliorate their responses to undeserved low-power positions.

Further to exploring the possibility that pro-social behaviour can strategically be used by power holders to secure their power, in Chapter 5 I examined their willingness to provide various forms of help to the powerless, in legitimate and illegitimate power structures. Additionally, I examined whether individual differences in SDO combined with perceptions of legitimacy to shape helping intentions. The findings provided further evidence supporting the argument that illegitimate power raises power-related concerns among the powerful. Across different measures, relative to when power was legitimate, illegitimate power led power holders high in SDO to promote the dependency of the powerless on them: They reduced empowering forms of assistance to the powerless and derogated their competence—a

dimension that is highly associated with power (Fiske, Xu, Cuddy, & Glick, 1999). Together, these results suggest that by encouraging the dependency of the powerless (and, complementarily, increasing control over them), high SDO power holders might expect to minimize power threats imposed by illegitimate power structures and, eventually, reduce potential opportunities for the powerless to strive for a better social standing.

Evidence reported in this thesis also suggests that illegitimate power raises concerns for the legitimacy of power structures among observers (Experiments 5 and 6). Specifically, when confronted with illegitimate power structures, observers were generally inclined to reinstate legitimacy into those external hierarchies by helping the powerless (more than the powerful) to strive for a better position. Moreover, observers' responses were unaffected by general inclinations to reinforce current power inequalities (SDO) in both conditions of legitimacy, which might indicate that power projections within external hierarchies do not concern observers. Taken together, the results of Chapter 5 provide further support for the notion that, at least in the context of intergroup help, illegitimate power has different implications depending on individuals' own position within power structures, with observers likely to be primarily concerned with the reinstatement of legitimacy when this is lost.

These results thus shed light on the psychological processes and concerns/goals underlying the behaviour that is induced by the perception of illegitimate power structures. Consistent with past research on intergroup relations (e.g., Ellemers et al., 1990; Tajfel, 1978; Tajfel & Turner, 1979), the results reported here suggest that illegitimate power elicits different concerns for powerful and for powerless individuals, relative to when power is legitimate: The powerful aim to secure their power; the powerless aim to claim it. However, past research looking at when and how the powerful avert power change and the powerless seek power has so far only assessed emotions, attitudes, or behavioural intentions. We thus extend research in this tradition by demonstrating the existence of these approach and

avoidance motivations, and how the motivation to avoid or to approach power change is reflected in actual power-related behaviour. The powerless are motivated to approach power and respect, which leads them to behave in ways that convey power to others, for example by adopting behaviours that are characteristic of the powerful. On the other hand, work on power holder's responses to power threats has so far provided inconsistent findings suggesting that intentions for inhibition, for power assertion, and for conceding power are all possible outcomes of illegitimacy (e.g., Chow, Lowery, & Hogan, 2013; Goff, Epstein, Mentovich, & Reddy, 2013; Reicher & Haslam, 2006, 2015). The findings in this thesis show that, during interactions, the powerful engage in positive behaviour towards the powerless, which might be indicative of strategic efforts to thwart potential attempts from the powerless to improve their illegitimate standing.

Previous research has demonstrated that power (and status) affects impression management goals (e.g., Bergsieker, Shelton, & Richeson, 2010; Fiske, Cuddy, Glick, & Xu, 2002). My findings provide further evidence for the role of power in structuring impression management and extends past research by demonstrating that structural factors (such as the perceived legitimacy of power) also modify goals related to impression management. Importantly, the results also showed that impression management goals elicited by illegitimate power modified the behaviour of the powerless.

Furthermore, these findings also extend past research on intergroup help (e.g., Halabi, Dovidio, & Nadler, 2008; Nadler, 2002; Nadler, Harpaz-Gorodeisky, & Ben-David, 2009) by showing that intentions to help the powerless might be dependent not only on the combined effect of perceived legitimacy and individual differences in SDO, but also on the help providers' position in the power structures (i.e., powerful or third party observers). To my knowledge, Chapter 5 provides the first account of the helping intentions of observers, while comparing them to the helping intentions of powerful group members. Overall, this analysis

suggests that illegitimate power might hold different implications for help providers, depending on whether or not they are internal to (and thus invested in) social hierarchies. Consequently, helping can at times constitute an instrument to eradicate illegitimacy (when done by observers) and an effective tool to reinforce social inequalities (when done by powerful group members).

Finally, the findings reported in this thesis might also have implications for research examining how women respond to power positions. Past research suggests that, by virtue of often being seen as a low-power group, women behave in ways that are typical of low-power individuals: For example, they are avoidance oriented and reluctant to enact power (e.g., Brescoll, 2012; Rudman & Kilianski, 2000; Rudman, Moss-Racusin, Glick, & Phelan, 2012; Rudman, Moss-Racusin, Phelan, & Nauts, 2012). Research reported in this thesis however suggests that this might not always be the case. Given that the majority of the sample used in each study was composed of female students, my findings seem to suggest that women's power-related behaviour can be modified, depending on perceptions of power and its legitimacy. As such, I believe that this thesis extends prior work by demonstrating that women can display powerlessness (for example, when their low power is legitimate) but they can also, at times, engage in power-seeking behaviour (for example, when their low power is illegitimate), enact power (if they have legitimate power), or protect illegitimate power. In sum, submission is not a characteristic of women (or of any specific social group), but only one type of behaviour that they are likely to display when they are in positions of power that they deem to be legitimate. It is possible that the same can be said for other groups that tend to occupy low-power positions in society, such as ethnic minorities. Future research should thus investigate whether the findings reported in this thesis can also emerge when other low power groups are considered.

Practical Implications

The hypotheses I raised in this thesis were examined within an experimental laboratory setting, where participants expected to interact with each other, and with scenarios involving unknown groups. Although these predictions were therefore examined in relatively artificial social environments, I believe that my predictions also hold in other hierarchical social structures, for example, in the context of organizational settings, or in the context of the relation between ethnic or national groups.

The Arab Spring, for instance, illustrates how the socio-psychological dynamics addressed in this thesis might come into play outside of the laboratory. In December 2010, the populations of several North African and Asian countries engaged in a revolutionary wave of demonstrations and protests, instigated by feelings of dissatisfaction with the local governments—which people labelled as illegitimate and corrupt—and attempted to change the social structure. However, the public display of dissatisfaction was met with great resistance from the local governments who sought to maintain their control over the status quo. This example, like the research reported in this thesis, demonstrates that people are sensitive to the perceived legitimacy of power structures and to what this perception represents for themselves and for their group. So whilst legitimacy can be the glue that helps maintain the status quo, illegitimacy can be the solvent that dilutes the glue and leads individuals to approach or to prevent changes in the current distribution of power.

More broadly, legitimacy seems to be the key to understanding social conflict: Authority figures are effective in promoting cooperation between various strata in social hierarchies to the extent that they are perceived as having legitimate authority and acting accordingly to prevailing norms of adequate conduct (e.g., Berger & Zelditch, 1998; Weatherford, 1992). However, when authorities are not (or are no longer) seen as legitimate, their power and decisions are questioned, which often results in social conflict between those

attempting to maintain power and those seeking to claim equality (e.g., Martin, Scully, & Levitt, 1990; Moore, 1978). This conflict might arise due to the fact that each party holds distinct expectations in relation to a questionable status quo. The findings reported in this thesis call attention to the fact that powerful and powerless individuals are likely to hold rather different perspectives, goals, and expectations relative to their power relation. Experiencing these differences can be overwhelming for both parties, especially because both groups are likely to project and communicate their concerns, feelings, and attitudes onto the other group, even if in very subtle ways, such as through the way they manage physical distance (e.g., Pearson, West, Dovidio, Renfro, Buck, & Henning, 2008; see also Chapter 4 of this thesis). Maybe the understanding that both parties hold divergent expectations, and the acceptance that these differences are an ordinary phenomenon, might help reduce the conflict and the anxiety that are typical of social hierarchies undergoing change.

The powerful might also be effective in (re)claiming cooperation from the powerless if they understand the inclination for the disadvantaged to pursue power, when the opportunity arises. The powerless occupy a social role that limits their access to power, but their motivation to approach it might be enhanced when the perception of the properties that define power relations start to change (for example, when this relation is seen as illegitimate). This need might be expressed in various ways, for example, by claiming respect, pride, status or power (e.g., Shelton, Richeson, & Vorauer, 2006; see Chapter 4 of this thesis). Powerful leaders are often dismissive of the disadvantaged and tend to implement policies that fail to attend to their needs. For example, when the powerful provide the disadvantaged with help, it often falls under forms of assistance that promote the dependency of the disadvantaged, and reduce their chances for empowerment and autonomy (e.g., Jackson & Esses, 2000; Nadler, 2002; see also Chapter 5 of this thesis). Affirmative action policies, by contrast, which aim to promote diversity and to empower minorities through mentoring, have been shown to

effectively increase the trust and commitment of the disadvantaged to hierarchies, as they feel their goals are met and their identities are respected (e.g., Huo & Molina, 2006; Huo, Molina, Sawahata, & Deang, 2005; Kalev, Dobbi, & Kelly, 2006; Leonard, 1984). Although some contrasting evidence suggests that affirmative action might undermine its intended beneficiaries by promoting self-doubt in their own abilities or by increasing intolerance against them (e.g.,Maio & Esses, 1998; Sowell, 2004), research conducted in non-laboratory (i.e., real life) settings indicates that, overall, the disadvantaged appreciate the opportunities provided by diversity-promoting firms (Schmermund, Sellers, Mueller, & Crosby, 2001) and employers who endorse this type of policy are positively evaluated by advantaged employees (Crosby, Iyer, & Sincharoen, 2006; Parker, Baltes, & Christiansen, 1997).

Very much like the results reported in this thesis, in the organizational world employees' desire for respect is extremely important and often equal to, or even more important than, aspects such as salary and job security (e.g., van Quaquebeke, Zenker, & Eckloff, 2009). In fact, the desire to be respected ranks as the most important factor in determining employees’ commitment to the company, but it is often felt not to be met by actual organizational practices (e.g., Ellemers, Sleebos, Stam, & de Gilder, 2013; van Quaquebeke & Eckloff, 2010; van Quaquebeke, Zenker, & Eckloff, 2006). From the employers (that is, power holders) stand point, one way to facilitate employee commitment and to attenuate their resistance to the organization's norms, might be to pursue more positive interactions and meet the employee's goals of being respected and valued. This can be achieved in a variety of ways, such as by encouraging the expression of ideas, by acknowledging employees’ contribution on a daily basis, or even by redefining and/or clarifying the organization's prescriptive norms of respect and competence (e.g., Boezeman & Ellemers, 2014; Hogg & Reid, 2006; Vorauer, 2006). Although future research needs to examine whether the findings reported in this thesis can be applied to organizational settings,

perhaps I can propose that by facilitating the engagement of those who are low in the organizational hierarchy, while valuing their participation in the organization, might contribute to lowering their feelings of illegitimacy and, at the same time, make the powerful aware that positive interactions (rather than negative) are key in maintaining social hierarchies. Consequently, the need for power demonstrations might decrease, whereas a genuine sense of mutual commitment and cooperation might arise.

In sum, I believe the present work provides compelling evidence that perceptions of the legitimacy of power play a critical role in the understanding perceptions, expectations, and behaviour of different social actors. These differences might culminate in prevailing tensions and conflict between those aiming to defend the status quo and those approaching social change. However, if powerful and powerless individuals are willing to understand the perspectives and motivations of their counter-parts, perhaps this can diminish the tension between these two parties and lead to healthier (less conflictual) power relations.

Limitations and Directions for Future Research

Although the studies presented in this thesis have important theoretical and practical implications for understanding the relationships between powerful and powerless individuals and groups, they are not without limitations. These limitations, however, open paths for potential future research. In this section I will outline what I believe might be the most critical limitations to the work presented here, while pointing possible solutions and future research directions.

The aim of this thesis was to better understand when, how, and why powerful and powerless individuals do not always behave in ways that reflect their power positions. I focused on three types of responses (motivations, behaviour, and helping intentions) and intended to examine whether variations produced by the interplay between power and legitimacy were consistent across measures. However, participants' motivations were not

assessed in all studies and, thus, a direct connection between motivational patterns and patterns of behaviour and helping intentions could not be made. One exception to this is that behavioural entitlement was measured in a study where motivations were also assessed, but no statistic relationship was found. However, the dichotomous (and thus less variable) nature of the measure of motivations might render relations between motivations and entitlement harder to find. In sum, even though the results suggest that behavioural responses and helping intentions do mirror motivational patterns, future research should investigate the direct link between these responses.

Another limitation of this work is that I did not pilot the association between the mazes (used to measure motivations) and approach and avoidance motivational states. Although past research has used the same mazes to prime approach and avoidance (e.g., Förster et al., 2006; Friedman & Förster, 2001), to my knowledge my work was the first to use these measures in the context of power relations, or as dependent measures. Future research might focus on establishing more directly the connection between this measure and motivational states. Moreover, it is possible that the mazes differ in ways other than the extent to which they relate to approach or avoidance motivations. For example, the avoidance maze implied an interaction with another being (that is, the mouse had to escape from an eagle), whereas the approach maze did not—it merely entailed approaching a piece of cheese. It is thus possible that, other than a general avoidance state, this maze more specifically assesses avoidance of social relationships. Therefore, future research could also examine the association between these mazes and the salience of social relationships.

It is also important to acknowledge that the majority of participants in each study of this thesis were female participants. Relative to men, women are often seen as a low-power group and can hesitate to enact power (e.g., Rudman et al., 2012). In contrast to prior research, my findings seem to offer compelling and consistent evidence that women can also

feel and behave in powerful ways and even actively engage in power-seeking, depending on their power position and its perceived legitimacy. Although I have no reason to believe that these findings would not have been obtained with a more gender balanced sample, or with a sample of men alone, it is important to acknowledge that some past research suggests that chronic perceptions of social disadvantage can affect individual responses (e.g., Branscombe, Schmitt, & Harvey, 1999). This might imply that women might be more willing to accept low power than men are because, to them, social disadvantage is more pervasive and can be commonplace. Alternatively, given that exposure to social disadvantage is rarer for men than it is for women, one can speculate that men (vs. women) might be more accepting of low power because, to them, this might represent a transient power position rather than a chronic condition. As such, future research might wish to replicate the results reported in this thesis with a more gender balanced sample and investigate whether or not these effects hold across both gender groups.

It is equally important to acknowledge that even though most of the findings reported in this thesis (specifically in Chapters 3 and 4) concern interpersonal power relations, the reviewed theorizing on the effects of legitimacy of power addresses intergroup relations (e.g., Ellemers et al., 1988, 1990; Tajfel, 1981, Tajfel & Turner, 1979). Still, the patterns of motivations and power-seeking behaviour described in Chapters 3 and 4 are highly reminiscent of the Social Identity Theory's prediction that perceived illegitimacy of power structures motivates advantaged groups to avoid losing their superior standing, and disadvantaged groups to approach power (Tajfel, 1981, Tajfel & Turner, 1979). Thus, on the one hand, by applying intergroup principles addressing power change to interpersonal power relations, the work reported here was able to situate the power dynamics of interpersonal interactions (often described in the literature by a linear relationship between power and motivation/behaviour) within social contexts and the properties than define them. By doing

so, the current research provided an account of how individuals that differ in their interpersonal power respond to power differences, and identified the social conditions that motivates them to accept their power (when this is legitimate), to protect their power (when this is high and illegitimate), or to claim power (when this is low and illegitimate). In sum, this work has applied principles known to affect intergroup relations to the interpersonal level. What this work does not do, however, is the reverse—to apply insights regarding interpersonal power processes to the intergroup level—and it is important to note that this thesis does not claim this generalizability. Indeed, whether or not the processes uncovered in this thesis generalise to the intergroup level is an empirical question that future research might examine. Although it is possible that similar results are uncovered, it is also possible that these dynamics at the intergroup level involve different considerations that might lead to different patterns. For example, group members often worry about how their actions might reflect on their group's reputation (e.g., Gupta & Bhawe, 2007; Spencer, Steele, & Quinn, 1999; Steele & Aronson, 1995; Steele, Spencer, & Aronson, 2002) and this might lead them to downregulate their approach tendencies. Thus, group members would be likely to guide their chair selection by their considerations of how this decision would impact on the image of their ingroup and/or the consequences that this would have for an outgroup (represented by the interaction partner), rather than by the motivation to uphold their social standing (which was likely the case in the studies described here). Future research could therefore investigate this potential discontinuity between interpersonal and intergroup power processes further.

With regard to the research reported in Chapter 5, although using scenarios involving aliens is useful in that it allows for the investigation of intergroup dynamics free form stereotypic or historical considerations, my research cannot by itself confirm that such findings would also obtained when more realistic scenarios are considered. It is, however, important to acknowledge that past research on intergroup help often examines intergroup

helping intentions in real life settings, and has reported findings that are consistent with those reported here (e.g. Halabi et al., 2008; Nalder et a., 2009). However, this thesis also presented the first examination of the helping intentions of third-party observers. It is possible that the pattern of helping intentions among observers might differ substantially when more realistic scenarios are use. In real groups, observers might know about, and perhaps even share, preconceived ideas about the groups involved. Past research indeed provides evidence suggesting that variables such as empathy, identification, or familiarity, might influence an observer to be more or less willing to help minorities (e.g., Barr & Higgins-D'Alessandro, 2007; DiStafano, Croteau, Anderson, Kampa-Kokesch, & Bullard, 2000). It therefore seems that in realistic settings observers might hold additional motivations to help to those examined in this thesis. However, the findings reported here might still hold true for situations in which third-party observers remain external to and unfamiliar with power structures. Future research should thus examine observers' intentions to help powerless outgroups in more realistic contexts, and determine whether their motivations to offer help are dependent on prior beliefs and knowledge of the power structures they observe.

It was also outside of the scope of this PhD to experimentally examine whether the powerless also use (the acceptance of) help strategically and as a function of the perceived legitimacy of power structures. Past work suggests that low-status group members are less willing to accept help from high-status members when status is perceived to be insecure, and that they would rather accept autonomy- over dependency-related help in these conditions (e.g., Nadler, 2002; Nalder & Chernyak-Hai, 2014; Nalder & Halabi, 2006). According to research on intergroup help, the fact that low-status group members only welcome autonomy-related help when group status is insecure reflects their desire to expedite future independence from power holders and attempts to improve their social standing (e.g., Nadler, 2002). However, low-status group members might also be driven by other concerns. Based on

research in adjacent domains (e.g., Cuddy, Fiske, & Glick, 2008; Fiske et al., 1999), low-status members might be driven by a basic motivation to be seen as competent, especially in a context where they are offered help. This desire for competence might be particularly evident when changes in status (or power) are conceivable (as suggested in Chapter 4) and, thus, reflected on a greater willingness to accept forms of assistance that imply a higher degree of competence of those who accept it (such as autonomy-related help). Therefore, future research could examine whether the powerless' willingness to accept different forms of assistance, depending on perceptions of legitimacy, is always reflective of power-seeking or, instead, can at times reflect a more general concern to be seen as competent.

Research could also focus on examining other ways in which legitimacy can be conceived and whether its effects are altered by these conceptualisations. In the experiments reported here, the perception of legitimacy concerned how power structures were established and, thus, how power was acquired. However, there are other ways to conceive of legitimacy, for example, the legitimacy of actions (Wrong, 1979) can be questioned even when power itself is legitimate. As such, future research should also explore whether legitimacy of actions elicits distinct responses on motivations and behaviour from those that are induced by the legitimacy of the source (reported in this thesis)—and perhaps also whether this happens through its effects on perceived legitimacy of power (which can be undermined when actions are illegitimate).

Future work could also focus on examining how (il)legitimate enactment of power impacts on its perceived legitimacy. Past research has shown that adopting body postures associated with power or with powerlessness can cause individuals to actually feel more powerful or powerless (e.g., Carney, Cuddy, & Yap, 2010). It is possible that the same can be said for perceptions of legitimacy of power. For example, research on intergroup crowd behaviour (e.g., Drury & Reicher, 2000; Reicher, 1996a,b, 2001; Stott & Reicher, 1998)

suggests that to the extent that the actions of an authority are perceived as not only indiscriminate (that is, seen to affect everyone) but also illegitimate, then they can transform a relatively heterogeneous crowd into a homogeneous one, which is united around a sense of opposition to the illegitimate actions of said authority, even when the authority believes their actions to be legitimate. But can legitimate actions transform illegitimate power? That is, can power that is acquired illegitimately come to be perceived as legitimate over time if it is enacted in unquestionable ways? Future research should thus also examine whether legitimacy of actions influences legitimacy of power such that by enacting power individuals and groups grant legitimacy to their power, both in their own eyes and in the eyes of others.

Conclusion

The present thesis endeavoured to explore the role of the perceived legitimacy of power structures in shaping powerful and powerless individuals' behaviour towards the promotion or prevention of power change. By examining various forms of responses of both powerful and powerless individuals situated within legitimate and illegitimate power structures, I believe that this thesis made important steps towards the understanding of the social-psychological dynamics underlying interpersonal behaviour and of the social conditions that might propel changes to hierarchical social systems. This thesis demonstrates that power differences are not inevitable, and the psychological and behavioural consequences of having (vs. not having) power can also be fundamentally changeable. When it comes to power, its effects can be dependent on how legitimate it is perceived to be. I hope that the issues raised in this thesis will inspire future research committed to further unveil the impact that perceptions of legitimacy have in creating and negotiating power relations.

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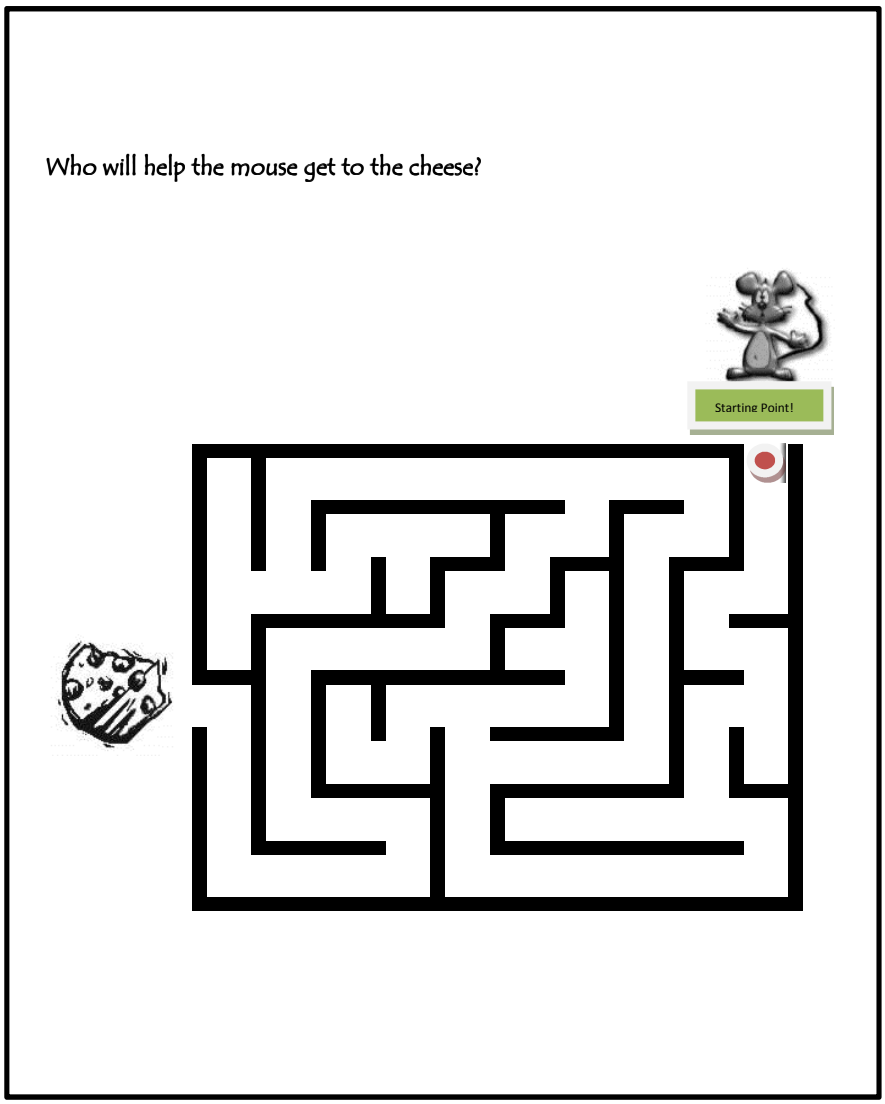
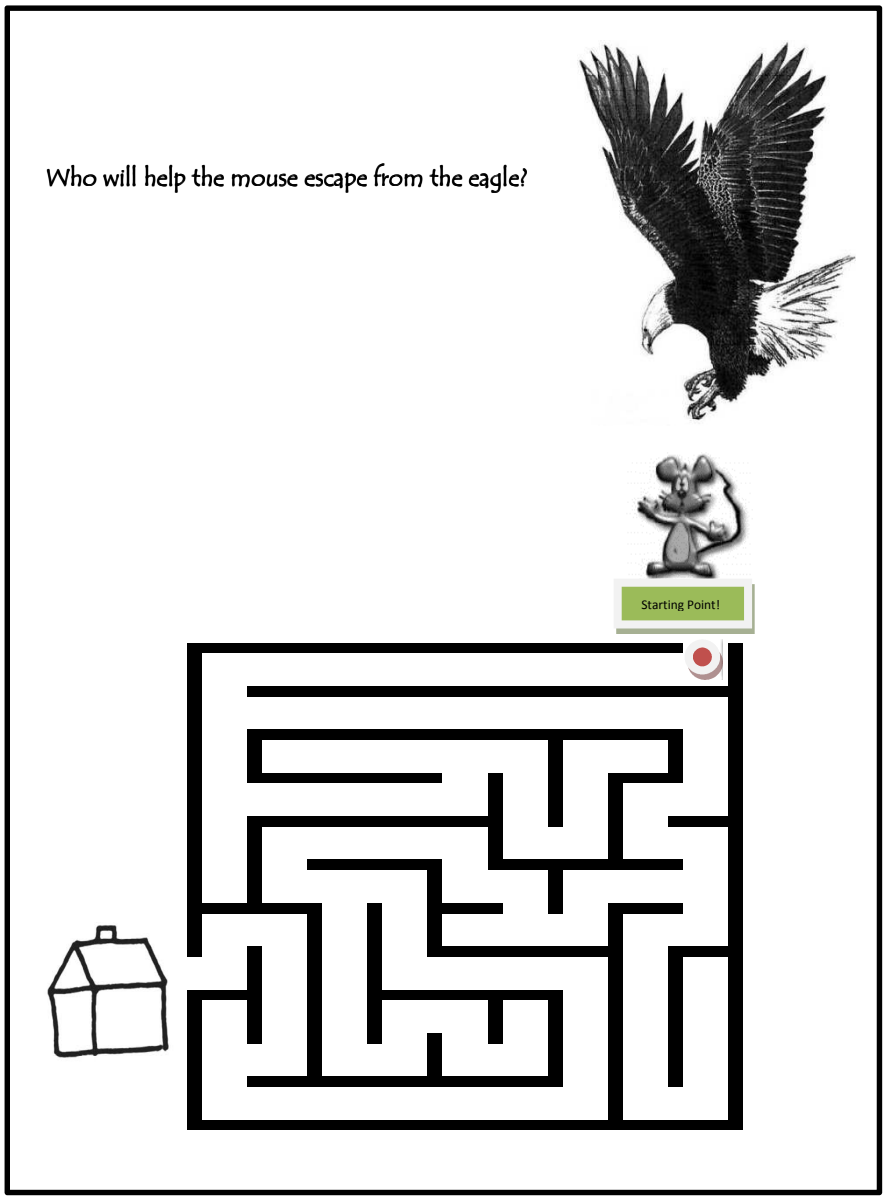
Appendices

Appendix A: Mazes used in Experiments 1 and 2 to assess approach and avoidance motivations.

Example 1: Approach Maze



Example 2. Avoidance Maze



Appendix B: Summary of emotion item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 1).

Theme	Factor 1	Factor 2	C[1]
Anxious	.89		.80
Tense	.86		.75
Calm (reverse coded)	.81		.71
Confident (reverse coded)	.78		.63
Annoyed		.90	.82
Irritated		.88	.82
Indignant		.82	.67
Content (reverse coded)		.55	.50
% of variance explained	46.03	24.88	70.91

[1]C = Communality Coefficient

Appendix C: Example of how participants placed the chairs used in Experiments 3 and 4. The chair to the left (armchair) is the most impressive chair, whereas the chair to the right is the least impressive chair.

Appendix D: Summary of emotion item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 3).

Theme	Factor 1	Factor 2	C[1]
Displeased	.89		.81
Annoyed	.89		.81
Irritated	.87		.80
Resentful	.81		.65
Furious	.81		.65
Frustrated	.80		.69
Content (reverse coded)	.70		.59
Indignant	.65		.50
Pleased (reverse coded)	.63		.50
Calm (reverse coded)		.86	.77
Anxious		.86	.74
Tense		.84	.72
Confident (reverse coded)		.81	.70
% of variance explained	50.31	18.55	68.86

[1]C = Communality Coefficient

Appendix E: Items of the PANAS scale (Watson, Clark, & Tellegen, 1988) used in Experiment 4 to assess positive and negative emotions.

Positive emotions (α = .85):

Interested

Excited

Strong

Enthusiastic

Proud

Alert

Inspired

Determined

Attentive

Active

Negative emotions (α = .79):

Distressed

Upset

Guilty

Scared

Hostile

Irritable

Ashamed

Nervous

Jittery

Afraid

Appendix F: 16-item social dominance orientation scale (Pratto, Sidanius, Stallworth, & Malle, 1994) used in Experiments 5 (α = .86) and 6 (α = .89).

1. Some groups of people are just more worthy than others.

2. It would be good if all groups could be equal.

3. In getting what your group wants, it is sometimes necessary to use force against other groups.

4. Group equality should be our ideal.

5. All groups should be given an equal chance in life.

6. It's OK if some groups have more of a chance in life than others.

7. We should do what we can to equalize conditions for different groups.

8. To get ahead in life, it is sometimes necessary to step on other groups.

9. If certain groups of people stayed in their place, we would have fewer problems.

10. We should increase social equality.

11. It's probably a good thing that certain groups are at the top and other groups are at the bottom.

12. We would have fewer problems if we treated different groups more equally.

13. Inferior groups should stay in their place.

14. We should strive to make incomes more equal.

15. No one group should dominate in society.

16. Sometimes other groups must be kept in their place.

Appendix G: Summary of reasons to help item loadings on each factor from maximum likelihood varimax factor analysis: Two-factor solution (Experiment 6).

Theme	Factor 1	Factor 2	C[1]
I would feel morally responsible to help the Kochab	.87		.77
I would want to protect the Kochab	.87		.75
I would feel sorry for the Kochab	.72		.55
I would feel a sense of solidarity with the Kochab	.62		.55
I would want to show the Kochab how Humans can solve problems that the Kochab cannot		.82	.67
I would want to ensure resources were available to Humans		.79	.63
% of variance explained	40.86	24.42	65.29

[1]C = Communality Coefficient