People with Power are Better Liars

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Abstract

Telling a lie is costly: emotionally, cognitively, and physiologically. Lie-tellers experience negative emotions, cognitive impairment, physiological stress, and reveal this through nonverbal cues. The emotional, cognitive, and physiological resources taxed by lying are enhanced by the experience of social power. Power-holders enjoy positive emotions, increases in cognitive function, and physiological resilience. This research tested and found that holding power buffers individuals from the stressful event of telling a lie and leads to easy and effective deception. In situations of high (vs. low) power, lie-tellers appear like truth-tellers emotionally, cognitively, physiologically, and nonverbally.

People with Power are Better Liars

Deception appears to have been evolutionarily selected for, emerging within the primate lineage approximately 12 million years ago (Adolphs, 1999; Byrne, 2003). Humans lie frequently and for many different kinds of reasons, including to protect feelings, claim undue resources, project a false self-image, manipulate, or coerce (e.g., DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). But lying does not come without cost. Lie-tellers experience negative emotions (Ekman, O'Sullivan, Friesen, & Scherer, 1991; Frank, 2009; Vrij, 2001; Vrij, Semin, & Bull, 1986), decrements in mental function (Spence, Farrow, Leung, Shah, Reilly, Rahman, & Herford, 2003; Spence, Hunter, Farrow, Green, Leung, Hughes, & Ganesan, 2004; Vrij et al), and physiological stress (Frank, 2009; Iacono, 2007, 2008; Vrij et al). Liars are also, of course, at risk of getting caught. Despite people's best attempts to get away with their prevarications, lies are often behaviorally "leaked" through subtle changes in body and voice (e.g., Ekman & Friesen, 1969; Ekman & Friesen, 1974; Ekman & O'Sullivan, 2006; Ekman et al; DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996; DePaulo, Lindsay, Malone, Muhlenbruck, Charlton, & Cooper, 2003; Vrij, 2001).

The experience of power, it seems, enhances the same emotional, cognitive, and physiological systems depleted by the act of telling a lie. Individuals experiencing power enjoy more positive emotions (Keltner, Gruenfeld, & Anderson, 2003), increases in cognitive function (Keltner et al; Smith, Jostmann, Galinksy, & van Dijk, 2008) and physiological resilience to stress such as lower levels of the stress hormone cortisol (Sapolsky, Alberts, & Altmann, 1997; Cohen, Doyle, & Baum, 1997). In addition, individuals experiencing power are more likely to focus on rewards as opposed to costs (Anderson & Galinsky, 2007) which could shift focus away from thinking about getting caught in a lie and instead focusing on lying successfully. We hypothesized that power would act as a buffer against the stressful impact of lying and that high-power liars would appear emotionally, cognitively, physiologically, and behaviorally as if they were telling the truth.

We investigated the effects of power on lie-telling in a 2 (high power vs. low power) x 2 (lie-telling vs. truth-telling) between-subjects design. Legitimate power was experimentally manipulated by merging three standard paradigms for manipulating power. Participants were assigned to the role of “leader” or “subordinate” and engaged in a series of naturalistic social interactions in which the leader had control over the subordinate’s monetary and social outcomes. Then participants stole or did not steal a $100 bill then were interviewed about the transgression by an experimenter. All participants were motivated to convince the experimenter they did not steal the money (although half did steal the $100; thus 50% were lying and 50% were telling the truth). Participants’ moral emotions, cognitive impairment, salivary cortisol, and coded nonverbal behavior were measured. We predicted that high-powered liars would be so good at lying, that they would appear like truth-tellers emotionally, cognitively, physiologically, and behaviorally.

Method

Participants and Design

Forty seven participants (29 female) were recruited from Columbia University and paid for a one-hour experiment. Participants ranged in race/ethnicity: 20 Asian (including Indian/South Asian), 15 Caucasian, 6 Black, and 2 Hispanic, and 4 participants reported being of some “other” race/ethnicity. We investigated the effects of power on lie-telling in a 2 (high power vs. low power) x 2 (lie-telling vs. truth-telling) between-subjects design.

Power Manipulation

Standard power manipulation protocols used in both psychological science and behavioral economics were merged to form one very impactful manipulation that would persist through the subsequent lie- versus truth-telling manipulation. This power manipulation was designed to be as realistic as possible. In order to ensure that the power manipulation was perceived as legitimate, participants first completed a “Leadership Questionnaire” and ostensibly were assigned to the role (leader or subordinate) best suited for them based on the questionnaire (Anderson & Berdahl, 2002). In actuality, role was randomly assigned. The leader and subordinate then formed a compensation committee on which they decided bonuses for three individuals (Anderson & Berdahl, 2002) and were told that final decisions would be made by the leader and that the leader would decide how much (if any) of a $20 “paycheck” would be paid to the subordinate versus retained by the leader (i.e., an adaptation of the “dictatorship game;” Sivanathan, Pillutla, & Murnighan, 2008). To make the power manipulation additionally impactful, the leader was given duplicate copies of the three candidates’ resumes and the leader, who was in a big office, called the subordinate (who was in a very small office) into the leader’s office for the compensation committee meeting. A 10 minute interaction ensued after which time the leader sent the subordinate back to his/her office while the leader recorded final compensation committee decisions and how much of the $20 to pay the subordinate. A manipulation check of the power manipulation confirmed that “leaders” felt more powerful (dominant, in control, in charge, high status, like a leader, powerful; $M = 2.89$; $SE = .16$) than “subordinates” ($M = 2.34$; $SE = .17$), $F(1, 46) = 5.76$, $p < .05$; effect size $r = .35$.

Lie Versus Truth Telling Manipulation

Immediately after the power manipulation, an experimenter sat down with each participant separately (experimenters were both Asian males approximately 25 years old;

experimenters were randomly assigned to participant). A high-stakes theft paradigm adapted from the deception literature was used to manipulate lie- versus truth-telling (e.g., Frank & Ekman, 2004). Participants were told they would have an opportunity to make an extra $100 by potentially telling a lie successfully. They were told they may or may not have to steal a $100 bill which was in a white envelope buried in a pile of books in the corner of the room. Participants were told that after the experimenter left the room, the computer would instruct the participant whether or not to steal the money. All participants were instructed to do their very best to convince the experimenter that they did not take the money - *whether or not they actually did*. If the participant (whether or not s/he was lying) could convince the experimenter (who was blind to lie vs. truth condition) they did not take the money, the participant would keep the $100 and would be entered into a lottery to win $500 more. This manipulation created 50% liars and 50% truth-tellers. All participants believed the experimenter had no knowledge of whether they actually stole the money and were equally motivated to convince the experimenter. To really make sure the participant believed this actually was the case (which it was), both the experimenter and participant signed a contract together stating that the experimenter had no knowledge of whether or not the participant would be assigned to steal or not steal the money. In addition, at the end of the experiment during debriefing, the experimenter verified that all participants believed that the experimenter did not know for sure whether they were lying. The experimenter then conducted a videotaped interview which began with "control questions" such as: "what are you wearing today?" and "what is the weather like outside? And ended with the "lie questions" such as: "did you steal the money?" and "are you lying to me now?" Immediately after the video recorded interview, participants completed measures of emotional feelings and cognitive function.

Outcome Variables: Moral Emotions, Cognitive Impairment, Cortisol, and Behavior

Moral emotional feelings and cognitive impairment. Four emotion terms were rated on 7-pont scales: bashful, guilty, troubled, and scornful. A well-known reaction time task measuring cognitive impairment (i.e., the Stroop task) was administered on the computer. Higher scores indicated more negative feelings. The task measures rate of naming a color swatch (e.g., red) on which a word representing a consistent color (e.g., red) versus an inconsistent color (e.g., blue) is written. Degree of cognitive interference measured in milliseconds on the consistent trials minus the inconsistent trials was taken as an index of cognitive impairment (used in Smith et al., 2008). As is typical with response-latency data, the distribution was skewed and was therefore transformed using a reciprocal transformation. Thus higher scores indicated more impairment.

Hormone Sampling and Assays. Standard salivary hormone-collection procedures were used (Schultheiss & Stanton, 2009; Touitou & Haus, 2000). Approximately 1.5 mL of saliva was drooled through a straw into a sterile polypropylene microtubule. Saliva samples were immediately brought to a freezer in an adjacent lab. A baseline saliva sample was taken upon arrival. Approximately 27 minutes after the beginning of the lie manipulation the second saliva sample was taken (*SD* = 5 minutes; range = 17 to 37 minutes). Within two weeks, frozen samples were packed in dry ice and shipped for analysis to Salimetrics in State College, Pennsylvania. The saliva samples were analyzed for cortisol concentrations with enzyme immunoassay kits and were assayed in duplicate. Intra-assay coefficient of variation (CV) was 5.6 %, and inter-assay CVs averaged across high and low controls was 5.5%. Cortisol levels were in the normal range (*M* = 0.13 µg/dL, *SD* = .10). Time 1 cortisol scores were regressed on time 2 scores and the standardized residuals were used in analysis (i.e., the variance associated with the baseline cortisol measurement was removed from the post-manipulation, or time 2, measurement; Thuma, Gilders, Verdum, & Loucks, 1995).

Behavioral Coding. Three research assistants blind to experimental condition coded the interviews for two known behavioral signs of deception which have been harvested specifically form transgression contexts such as the theft paradigm used in the current research. During a lie, nonverbal behavior is generally suppressed (Vrij, 2001). This gives rise to partial behaviors which have been labeled “leakage” (Ekman & Friesen, 1969). One class of behaviors which are often suppressed during transgression lies and result in leakage are emblems. Emblems are nonverbal behaviors which take the place of speech (e.g., Ekman & Friesen, 1969, 1974). One partial emblem which has been observed repeatedly in deception research is a partial, rapid shrug which can be observed as a tiny, one-sided shoulder or hand shrug (Ekman, 1992; Ekman & Friesen, 1969, Ekman et al., 1976). Another nonverbal behavior indicative of deception in transgression contexts (such as in the current report) is accelerated prosody (i.e., an increase in speech rate; see a meta-analytic review by DePaulo et al., 2003). In the current research, one-sided shoulder shrugs and accelerated prosody were coded. Nonverbal behavior was coded separately during responses to each question. Inter-rater reliability was determined by two coders rating the same subset of videos (28%). After inter-rater reliability was established, one of the coders went on to rate the remaining videos. A different coder was responsible for each of the two behaviors. Coding of shoulder shrugs (r = .74) and speech rate (r = .97) were reliable. As is typical, speech rate was calculated by dividing the total number of syllables uttered by the duration (in sec) of the utterance (Buller, 2005). All statistical analyses examined behavior during the lie questions minus behavior during the control questions.

Results

We predicted that having power would buffer the stressful impact of lying and that as a result, individuals with power would appear in every way like truth-tellers. Specifically, we predicted that high-power liars along with truth-tellers would evidence no distress during and after the interview; but that low-power liars would show evidence of moral emotional distress, cognitive impairment, elevated cortisol levels indicative of a stress response, and nonverbal "tells" of lying. To test this prediction, a planned contrast tested that only low-power liars would show evidence of distress significantly higher than high-powered liars who would demonstrate a pattern consistent with truth tellers on all outcome variables (emotion, cognition, cortisol, and behavior). Thus, a contrast weight sequence of 3, -1, -1, -1 was used across: low-power liars, high-power liars, low-power truth-tellers, and high-power truth-tellers (respectively).

Consistent with the prediction that power would provide a buffer for the stress of lying, only low-power individuals demonstrated evidence of their lies across all five outcome variables: low-power individuals reported more negative moral emotions following their lie whereas high-power liars reported no negative feelings just as the truth-tellers reported no negative feelings (*t*-values, *p*-values, and effect size *r*s shown in the Table; see also Figure 1 for graphical representation of the means). This same exact pattern was found in evidence of cognitive impairment on the Stroop task following the interview (Table; Figure 2), in cortisol reactivity during the interview (Table; Figure 3), in partial shoulder shrugs (Table; Figure 4) and in accelerated prosody (Table; Figure 5). These results suggest that power-holding individuals can leverage the emotional and cognitive benefits of their power to lie more easily and effectively.

Discussion

Power, it seems, thwarts the emotional anguish, cognitive taxation, physiological stress, and nonverbal "tells" of lying. Our results have important implications for the relation between power and deception. Because power-holding individuals do not experience punishing emotions, cognitive “load,” or physiological stress when lying, it is possible that they may *lie more often*. Typically, human and non-human animals learn from punishing experiences not to engage in acts which punish. If power-holders lie with such ease, is it possible that feelings of power will lead to increases in intensity and frequency of lying? These data suggest that high-powered individuals in society such as CEOs, portfolio managers, and politicians could be more emotionally, cognitively, and physiologically “prepared” to be drawn to corruptive acts such as lying more easily, more intensely, and more often. The current result may also suggest that power could lead to general corruption through a mitigated stress response to typically adverse events such as lying, cheating, stealing, and reckless and unidirectional use of other people for instrumental gain.

Another implication of the current result is that it may be more difficult to detect deception in powerful people. Ordinary people are notoriously bad at detecting deception. At worst, people are at chance (i.e., 50%) discriminating lies from truths (e.g., Ekman, O’Sullivan, & Frank, 1999) and even the best estimates put people at around 54% (Bon & DePaulo, 2006). Because high-power liars appear like truth-tellers in every way, they are probably more likely to be classified as telling the truth even when they are lying.

In conclusion, people with power are better liars; they do not evidence signs of distress in emotion, cognition, cortisol response, and nonverbal “tells.” As such, high-power individuals may be more likely to engage in deception and other acts of corruption. Finally, it is likely much more difficult to catch a high-power liar.

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Table. Significance tests and effect sizes for each of the five outcome variables.

Outcome variable	*t*	Effect size *r*
Negative moral emotion (Figure 1)	2.53*	.36
Cognitive impairment (Figure 2)	2.12*	.36
Cortisol reactivity (Figure 3)	2.57*	.31
Partial shoulder shrugs (Figure 4)	2.67**	.38
Accelerated prosody (Figure 5)	1.85^{+}	.27

Note: + $p < .07$, * $p < .05$, ** $p < .01$

Figure Captions

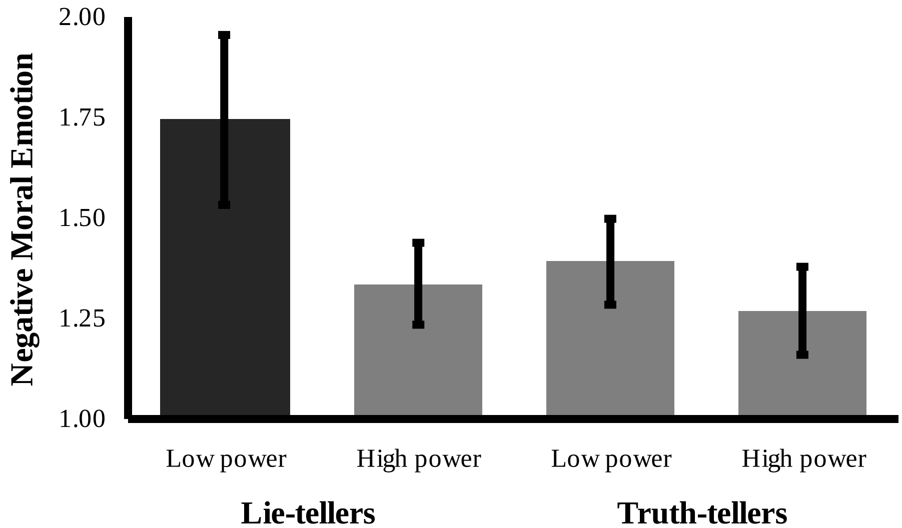
Figure 1. Like truth-tellers, high-power liars show no emotional distress; only low-power liars report feeling negative moral emotions (bashful, guilty, troubled, scornful). Error bars are *SE*s.

Figure 2. Like truth-tellers, high-power liars show no evidence of cognitive impairment; only low-power liars show evidence of cognitive impairment. Error bars are *SE*s.

Figure 3. Like truth-tellers, high-power liars show no evidence of cortisol reactivity during the interview; only low-power liars show evidence of cortisol reactivity. Error bars are *SE*s.

Figure 4. Like truth-tellers, high-power liars show the same rate of partial shoulder shrugs as the truth-tellers; only the low-power liars "leak" their lies through nonverbal behavior. Error bars are *SE*s.

Figure 5. High-power liars speak with the same rate of speech as the truth-tellers; only the low-power liars reveal evidence of their lies through accelerated prosody. Error bars are *SE*s.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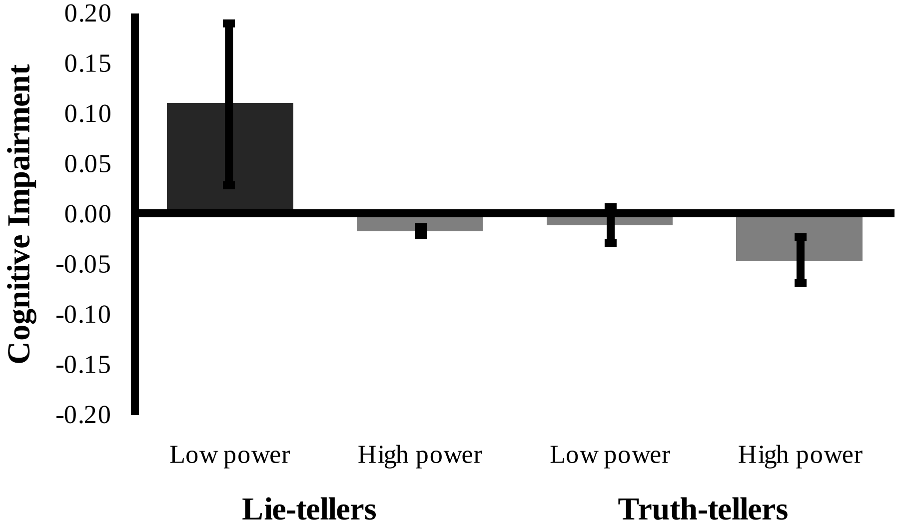
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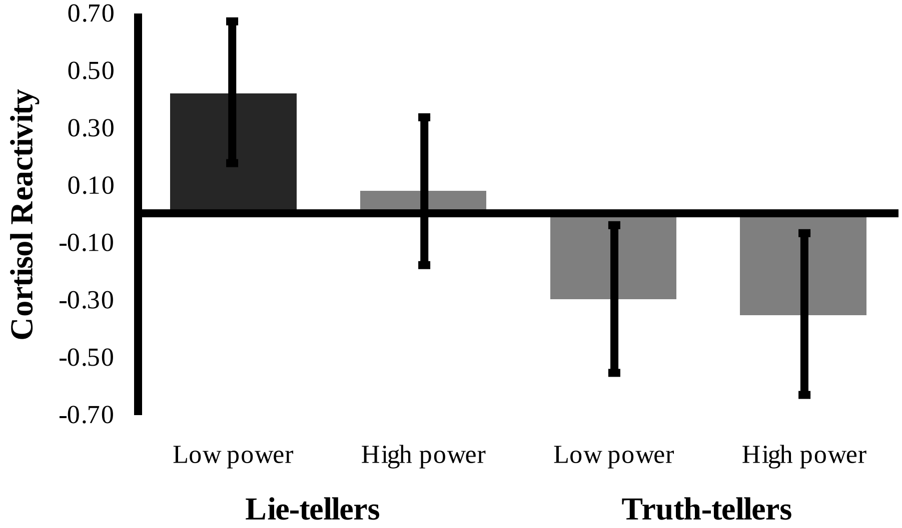
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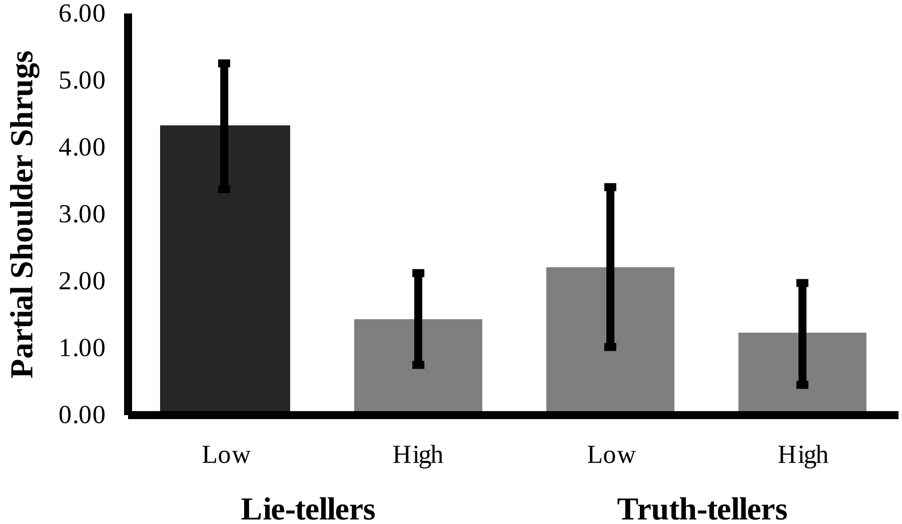
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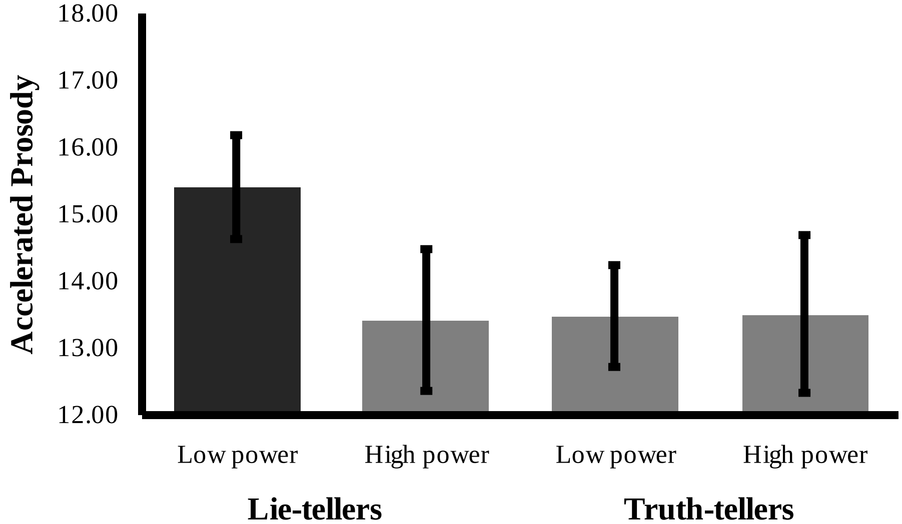
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