An Indecent Proposal:

The Dual Functions of Indirect Speech

Aleksandr Chakroff\textsuperscript{d}, Kyle A. Thomas\textsuperscript{1}, Omar Sultan Haque\textsuperscript{1}, Liane Young\textsuperscript{2}

1. Harvard University, Cambridge, MA

2. Boston College, Chestnut Hill, MA

Keywords: indirect speech, moral psychology, behavioral ethics, evolutionary psychology, self-deception
Abstract

People often use indirect speech, for example, when trying to bribe a police officer by asking whether there might be “a way to take care of things without all the paperwork”. Recent game theoretic accounts suggest that a speaker uses indirect speech to reduce public accountability for socially risky behaviors. The present studies examine a secondary function of indirect speech use: increasing the perceived moral permissibility of an action. Participants report that indirect speech is associated with reduced accountability for unethical behavior, as well as increased moral permissibility and increased likelihood of unethical behavior. Importantly, moral permissibility was a stronger mediator of the effect of indirect speech on likelihood of action, for judgments of one’s own versus other’s unethical action. In sum, the motorist who bribes the police officer with winks and nudges may not only avoid public punishment, but also maintain the sense that his actions are morally permissible.
1. Introduction

Imagine you are pulled over for speeding. You attempt to get out of the ticket, inquiring whether “there might be a way to take care of things right here, without all the paperwork?” The officer sees the fifty-dollar bill sticking conspicuously out of your wallet, takes the hint (and the cash), and moves on with his patrol. Linguists and psychologists have tried to understand why speakers might refrain from sending a message in the most clear and direct format possible, instead using indirect speech such as doublespeak, euphemism, and innuendo (Brown & Levinson, 1987; Horn, 2003; Lakoff, 1973; Lee & Pinker, 2010; Pinker; Nowak, & Lee, 2008), speech that violates tacit principles of cooperative communication (Grice, 1975), and carries the risk of obfuscating the intended message (Bonnefon, Feeney, & De Neys, 2011).

1.1. A first function: Reducing public accountability

On a recent evolutionary game theoretic account, indirect speech allows the speaker to make a risky proposition while at the same time minimizing risk. In particular, indirect speech allows the speaker to convey his intended message while increasing plausible deniability and reducing public accountability (Lee & Pinker, 2010; Pinker et al., 2008). Indirect speech may thus represent an adaptive strategy for acting unethically. Indeed, the use of indirect language (e.g., “the costume was torn” versus “he tore the costume”) to describe social and moral transgressions also shapes observers’ judgments of blame and accountability for the very same action (Fausey & Boroditsky, 2011; Loftus & Palmer, 1974).
1.2. A second function: Increasing moral permissibility

Current accounts of indirect speech leave an important question unanswered. Do speakers deliberately employ indirect speech to reduce their public accountability and to avoid punishment? We propose a second function of indirect speech: to increase the perceived moral permissibility of unethical acts, which may lead to increased likelihood of conducting those very unethical acts. In general, people view themselves as moral individuals (Aronson, 1969; Janoff-Bulman, 1989; Taylor & Brown, 1988), who are motivated to behave in a way that allows them to preserve a positive moral self-concept (Bandura, 1999; Bryan, Walton, Rogers, & Dweck, 2011; Diener et al., 1975; Mazar, Amir, & Ariely, 2008; Monin & Miller, 2001; Sachdeva, Iliev, & Medin, 2009; Shu & Gino, 2012; Tenbrunsel & Messick, 2004). Thus, people are more likely to act unethically when the unethical nature of their act is obscured (e.g., stealing $10 in ‘tokens’ versus cash; Dana, Weber, & Kuang, 2005; Mazar et al., 2008; Paharia, Kassam, Greene, & Bazerman, 2009; Snyder, Kleck, Strenta, & Mentzer, 1979).

1.3. The present research

Prior work has found support for the first function of indirect speech, reducing public accountability for the speaker’s socially risky or unethical behavior (Lee & Pinker, 2010; Pinker et al., 2008). Here, we investigate whether indirect speech also serves a second function: increasing the perceived moral permissibility of the behavior. We expect that reduced moral permissibility will track with greater reported likelihood of the speaker’s acting unethically (Batson et al., 1997; Jordan & Monin, 2008).
We address the hypothesis in two studies, building on past research showing that people judge themselves and others to be less publicly accountable for risky propositions made using indirect versus direct speech, and that people are also more likely to use indirect speech for unethical versus morally neutral propositions (Lee & Pinker, 2010). We ask whether indirect speech increases participants’ reported likelihood of making unethical propositions (Study 1) or reported likelihood of acting unethically more generally (Study 2). We investigate whether participants’ moral judgments of the propositions has a unique role in mediating the effect of indirect versus direct speech on one’s own reported likelihood of unethical behavior.

2. Study 1. Indirect speech and the likelihood of unethical propositions

People may be more willing to use indirect speech when proposing potentially immoral acts (e.g., threats, bribes, and unsolicited sexual advances) versus morally neutral acts (e.g., asking a favor; Lee & Pinker, 2010). Consistent with these findings, pilot data from 80 participants indicated that they personally feel less publicly accountable when using indirect versus direct speech to make unethical propositions ($F(1,78) = 79.41, p < 0.001, \eta_p^2 = 0.50$; see Supplementary Study 1). Study 1 examines whether subjective perceptions of reduced accountability are also accompanied by perceptions of increased moral permissibility, as well as a greater reported likelihood of making unethical propositions. Study 1 then measures the extent to which accountability and moral permissibility judgments predict the likelihood of making unethical propositions.

2. 1. Method.
We tested 160 participants using Amazon Mechanical Turk (80 male; $M_{age} = 31.6, SD_{age} = 11.8$). Participants were English speakers from the United States and paid 51 cents for their time. Five participants were removed for attempting to participate in the experiment twice. Study 1 followed a 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects design. Directness was manipulated within subjects, and role was manipulated between subjects. Participants read four scenarios describing a protagonist making an unethical proposition (e.g., bribing a maitre d'; see Supplementary Material for full text). The protagonist in all four scenarios was either oneself or a stranger. Below each scenario were two propositions one might use: a direct proposition (e.g., "Hey, any chance I can pay you to get seated early?") and an indirect proposition (e.g., "Hey, any chance we can get some great service tonight?"). Order of direct and indirect propositions was counterbalanced across scenarios.

For each scenario, participants rated (1) the protagonist’s (e.g., their own or another’s) likelihood of making each proposition, (2) the protagonist’s accountability (e.g., “If (you / Steve) were caught doing this, how likely would (you / Steve) be to ‘get off the hook?’”), and (3) the moral permissibility of the action. Each set of judgments (likelihood, accountability, permissibility) was collected in a separate block, with block order randomized across participants. In a final block, participants rated their confidence that the protagonist’s proposition conveyed its intended message (e.g., “How certain are you that the behavior described above was an instance of attempted bribery?”). This final measure served to confirm the effectiveness of the directness manipulation (see Bonnefon et al., 2011). Judgments were made using 101-point slider scales.

---

1 Block order information was not saved for this study.
2. 2. Results and Discussion.

Dependent measures (confidence, likelihood, moral permissibility, accountability) were analyzed in separate 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects ANOVAs. Means for all measures are shown in Fig. 1.

2. 2. 1. Confidence (Manipulation Check).

Participants reported less confidence that indirect propositions conveyed the intended message, relative to direct propositions (main effect of directness, $F(1,153) = 131.52, p < 0.001, \eta_p^2 = 0.46$). This main effect indicates that the directness manipulation served its intended effect. Importantly, we found no main effect of role ($F(1,153) = 1.05, p = 0.31, \eta_p^2 = 0.01$), nor a role x directness interaction ($F(1,153) = 0.04, p = 0.84, \eta_p^2 < 0.001$). We note also that confidence judgments do not account for the primary effects of interest reported below. In particular, when controlling for confidence judgments, all key results reported below remain significant, including the effects of directness on likelihood ($F(1,152) = 11.70, p = 0.001, \eta_p^2 = 0.07$), moral permissibility ($F(1,152) = 15.08, p < 0.001, \eta_p^2 = 0.09$), and accountability ($F(1,152) = 14.49, p < 0.001, \eta_p^2 = 0.09$).

2. 2. 2. Likelihood.

As predicted, participants reported a greater likelihood of making indirect versus direct propositions (main effect of directness, $F(1,153) = 183.65, p < 0.001, \eta_p^2 = 0.55$), an effect that did not differ for self versus other (directness x role interaction, $F(1,153) < 0.01, p > .99, \eta_p^2 <$
0.001). Participants also judged that they would be less likely than others to make unethical propositions (main effect of role, $F(1,153) = 54.72, p < 0.001, \eta^2_p = 0.26$).

2. 2. 3. Moral Permissibility.

As predicted, participants judged that indirect versus direct propositions were more morally permissible (main effect of directness, $F(1,153) = 134.38, p < 0.001, \eta^2_p = 0.47$), an effect that did not differ for self versus other (directness x role interaction, $F(1,153) = 1.29, p = 0.26, \eta^2_p = 0.01$). Participants also judged others’ propositions to be less morally permissible than their own propositions (main effect of role, $F(1,153) = 7.11, p = 0.008, \eta^2_p = 0.04$). This main effect of role (self vs. other), for likelihood ratings above and moral permissibility ratings here, is broadly consistent with prior work showing that people tend to think of themselves as more moral than others (Epley & Dunning, 2000).

2. 2. 4. Accountability.

Participants reported reduced public accountability for indirect versus direct propositions (main effect of directness, $F(1,153) = 210.89, p < 0.001, \eta^2_p = 0.58$). In this study, however, the effect was stronger for judgments of one's own versus others' propositions (role x directness interaction, $F(1,153) = 8.00, p = 0.005, \eta^2_p = 0.05$). There was no significant main effect of role ($F(1,153) = 1.93, p = 0.17, \eta^2_p = 0.01$).

-----------------------------Insert Figure 1 about here-------------------------------
2. 2. 5. Relationships between measures.

Regression models predicting reported likelihood of making an unethical proposition from judgments of perceived accountability and moral permissibility\(^2\) were conducted separately for self and other. For judgments of others, the likelihood of making unethical propositions was predicted best by perceived accountability (\(\beta = 0.38, p = 0.002\)), followed by perceived moral permissibility (\(\beta = 0.24, p = 0.04\)). By contrast, judgments of one's own likelihood of making a proposition were best predicted by the perceived moral permissibility of the act, (\(\beta = 0.62, p < 0.001\)), followed by the perceived accountability for the act (\(\beta = 0.20, p = 0.02\)). This pattern of results is consistent with work showing people tend to think of their own ethical behavior as internally generated, and others’ ethical behavior as driven by external sanctions (Sanderson & Darley, 2002). We created regressors for role, coding self-judgments as 1 and other-judgments as 0, and entered this into a single linear regression, along with interaction terms between role and moral permissibility, and between role and accountability. Critically, the role x moral permissibility term was significant (\(\beta = 0.30 p = 0.001\)), indicating that moral permissibility played a significantly greater role in predicting one’s own versus another’s likelihood of making unethical propositions, that is, a moderation by role. The role x accountability interaction term

\(^2\) Likelihood, permissibility, and accountability judgments followed distributions that were not significantly skewed (All 95%CIs contain 0), but were significantly platykurtic (likelihood = - .83, permissibility = -.6, accountability = -.69; all absolute 95%CIs > 0), leading to violations of normality (All Shapiro-Wilks > .9, p < .01), albeit within a conventionally acceptable range for regression (kurtosis +/-1; e.g., Muthén & Kaplan, 1985). Permissibility and accountability judgments were collinear (VIF = 1.35), but within an acceptable range (VIF < 10; e.g., Neter, Wasserman, & Kutner, 1989; Hair, Anderson, Tatham, & Black, 1995).
was not significant ($\beta = -0.04, p = 0.66$), demonstrating that accountability was similarly predictive of one’s own and another’s likelihood of making unethical propositions.

The moderation by role (self versus other) for moral permissibility suggests a unique role for perceived moral permissibility in predicting one’s own reported likelihood of making unethical propositions. Yet, this analysis does not speak to the potential for moral permissibility to mediate the effect of directness (direct versus indirect speech) on the likelihood of making a proposition. We tested for mediation of directness on likelihood by both moral permissibility and accountability (Cf. Preacher, Rucker, & Hayes, 2007), discovering that this effect was mediated both by public accountability (Indirect Effect = -7.55, Sobel $Z = -5.35, p < .001$) and by moral permissibility (Indirect Effect = -7.46, Sobel $Z = -4.52, p < .001$). We then tested for moderation of both mediators by role. Fig. 2 displays the amount of variance in likelihood judgments explained via both mediators, separately for judgments of one’s own and another’s likelihood of making an unethical proposal. As before, interaction terms between role and each mediator assess moderated mediation. Critically, indirect speech increased one’s own likelihood of making a proposition more by increasing moral permissibility, compared to the analogous effect for others, indicating this mediation was moderated by role (Indirect Effect for self = -9.23, other = -3.22; Interaction Effect = .34, $t(303) = 3.43, p < 0.001$). In contrast, the effect of directness on likelihood was mediated by accountability to a similar extent for judgments of oneself versus another (Indirect Effect for self = -7.15, other = -7.59; Interaction Effect = -.15; $t(303) = -1.46, p = 0.15$), indicating no moderation by role.

3. Study 2: Indirect speech beyond unethical propositions
In Study 1, participants judged people (both themselves and others) as more likely to make unethical propositions using indirect versus direct speech. Indirect speech was associated with people’s perceptions of not only reduced accountability but also increased moral permissibility of unethical action, both of which mediated the effect of directness on likelihood judgments. Critically, moral permissibility played a larger role in mediating the effect of directness on judgments of one’s own likelihood of making an unethical proposition, relative to judgments of another’s likelihood of acting (See Fig. 2).

If indirect speech affects one’s own likelihood of making an unethical proposition by increasing the perceived moral permissibility of the speech act, indirect speech may serve to obscure the unethical nature of an act in other contexts as well. Study 2 therefore tests whether indirect speech increases the reported likelihood of acting unethically, when indirect speech is used to describe an unethical behavior, but is not part the behavior itself (as in the case of indecent proposals). In particular, Study 2 examines whether participants report a greater likelihood of acting unethically when the acts are described to participants using indirect versus direct speech, and whether this effect is mediated by changing perceptions of moral permissibility of the acts \(^3\), as in Study 1.

3. 1. Method.

\(^3\) Separate data collected using the same stimuli as Study 2 revealed a marginal effect of directness on likelihood, a marginal effect on accountability, and no significant relationship between accountability and likelihood, for self/other judgments. See Supplementary Study 2.
We tested 140 participants using Amazon Mechanical Turk (55 male; $M_{age} = 34.3$, $SD_{age} = 13.3$). Participants were English speakers from the United States and paid 50 cents for their time. 22 participants were removed from analysis due to failing an attention check. Study 2 followed the same logic as Study 1, using a 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects design. Again, directness was manipulated within subjects, and role was manipulated between subjects. Participants read eight scenarios describing a protagonist who acted unethically, described in morally neutral terms (e.g., glanced at someone else’s test answers, and changed some of your own answers; see Supplementary Material for full text). The protagonist in all scenarios was either oneself or a stranger. Each participant saw four direct and four indirect items; assignment of item directness was counterbalanced. Directness was specified as follows. Each question contained a re-description of the act, using either indirect speech (e.g., “How likely would you be to do this: to check your answers”) or direct speech (e.g., “to cheat on the test”). For each scenario, participants rated (1) the protagonist’s (e.g., their own or another’s) likelihood of making each proposition, and (2) the moral permissibility of the action. Participants made either all likelihood or all permissibility ratings first; order was counterbalanced across participants. Participants then re-read all scenarios and delivered ratings for the second measure. There was no significant effect of order on likelihood ($F(1,116) = 2.61, p = 0.11, \eta^2_p = 0.02$) or moral permissibility ($F(1,116) = 1.41, p = 0.24, \eta^2_p = 0.01$), so subsequent analyses collapse across order. All judgments were made using 7-point likert scales.

3.2. Results and Discussion.
Likelihood and moral permissibility judgments were analyzed in separate 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects ANOVAs.

3. 2. 1. Likelihood.

Similar to Study 1, participants reported a greater likelihood of unethical action when the act was described with indirect versus direct speech (main effect of directness, $F(1,116) = 4.306$, $p = 0.04$, $\eta_p^2 = 0.036$); this effect did not differ for self versus other (role x directness interaction, $F(1,116) = 2.61$, $p = 0.11$, $\eta_p^2 = 0.02$). Also, as in Study 1, participants judged that they themselves would be less likely to act unethically compared to others (main effect of role, $F(1,116) = 124.72$, $p < 0.001$, $\eta_p^2 = 0.52$).

3. 2. 2. Moral Permissibility.

Similar to Study 1, participants judged that unethical acts described using indirect speech were more morally permissible than those described using direct speech (main effect of directness, $F(1,116) = 26.56$, $p < 0.001$, $\eta_p^2 = 0.19$); this effect did not differ for self versus other (directness x role interaction, $F(1,116) = 0.77$, $p = 0.38$, $\eta_p^2 = 0.01$). Unlike Study 1, however, participants judged their own and others’ unethical acts as similarly morally permissible (main effect of role, $F(1,116) = 0.34$, $p = 0.56$, $\eta_p^2 = 0.003$).

3. 2. 3. Relationships between measures.

Mediation analyses (Cf., Preacher et al., 2007) revealed that, as in Study 1, the effect of directness on likelihood was mediated by moral permissibility (Indirect Effect = -.28, $t(233) =$
5.0, \( p < .001 \) \(^4\). Critically, and as in Study 1, this mediation was moderated by role, such that indirect speech increased one’s own likelihood of making a proposition more by increasing moral permissibility, compared to the analogous effect for others (Indirect Effect for self = - .32, 37\% variance explained; other = - .09, 10\% variance explained; Interaction Effect = - .19, \( t(232) = -4.08, p < 0.001 \)).

In sum, people reported being more likely to engage in an unethical act when the very same act was re-described using indirect versus direct speech. These results provide a conceptual replication of Study 1 and also demonstrate that indirect speech can affect the likelihood of unethical behavior even when the speech manipulation does not apply to the behavior itself (e.g., a speech act that is an unethical proposition, as in Lee & Pinker, 2010). Also as in Study 1, the effect of directness on one’s own reported likelihood of action was mediated by the perceived moral permissibility of the action.

4. General Discussion

The current results suggest that indirect speech increases one’s own reported likelihood of unethical behavior by increasing the perceived moral permissibility of the behavior. Before we discuss the implications of these results, we offer a brief summary. In Study 1, people reported being more likely to make indirect versus direct unethical propositions. This effect was mediated by role, such that indirect speech increased one’s own likelihood of making a proposition more by increasing moral permissibility, compared to the analogous effect for others (Indirect Effect for self = - .32, 37\% variance explained; other = - .09, 10\% variance explained; Interaction Effect = - .19, \( t(232) = -4.08, p < 0.001 \)).

\(^4\) Likelihood judgments followed a significantly platykutic (- .97), but not skewed (.14) distribution, while moral permissibility judgments were positively skewed (.69), but had a normal level of kurtosis (.42). As in Study 1, all judgments followed distributions within acceptable ranges for regressions (e.g., Muthén & Kaplan, 1985).
by participants’ judgments of public accountability and moral permissibility. Crucially, however, moral permissibility played a significantly larger role in mediating the effect of directness on one's own versus another's likelihood of making unethical propositions. Study 2 investigated the impact of indirect speech on reported likelihood of unethical behavior, even when indirect speech was used merely to describe unethical acts. Indirect speech again increased the reported likelihood of unethical behavior, and again the effect of speech 'directness' on one's own likelihood of action was mediated by perceived moral permissibility.

The current findings suggest at least two distinct functions for indirect speech use. Notably, on previous accounts (e.g., Lee & Pinker, 2010; Pinker et al., 2008), reductions in the perceived accountability for an unethical act were thought to be directly linked to the increased likelihood of performing the act. However, the current approach suggests important differences between judgments of self and other: moral permissibility may play a greater role in affecting the likelihood of one’s own versus others’ actions. Furthermore, the manipulation of speech directness was shown to influence the reported likelihood of acting unethically – even when the speech manipulation was merely imposed on a re-description of the act, and did not constitute part of the act itself. This finding indicates that indirect speech can impact behavior even when not explicitly used in a proposal. Again, the effect of indirect speech on the likelihood of unethical action was mediated by the perceived moral permissibility of the act. Critically, this latter effect held only when determining one’s own reported likelihood of acting unethically – a relationship absent from judgments about third parties. In other words, we ourselves may be more likely to behave unethically when using indirect speech, because indirect speech changes how we see the moral status of our own behavior.
4. 1. Reconciling the dual functions

Private and public accounts of indirect speech use are compatible at different levels of explanation (Tinbergen, 1963; Mayr, 1982). The ultimate adaptive function of indirect speech use may be to minimize the potential costs of engaging in risky behaviors with substantive potential benefits (Pinker et al., 2008). This goal could be achieved through conscious, explicit manipulation of one’s public accountability, or through a motivation to preserve one’s own self-image (Batson et al., 1997; Johnson & Fowler, 2011; DeScioli & Kurzban, 2009; Kurzban & Aktipis, 2007). Notably, an effective approach to presenting a credible positive image to others is simply to believe it oneself (Trivers, 2000; Von Hippel & Trivers, 2011). Thus, in everyday social interactions, the benefits of indirect speech use may be realized not through a conscious, effortful application of Machiavellian social strategies, but rather through the simple desire to act in morally permissible ways. Striving to maintain a positive view of one's own moral behavior may serve the ultimate goal of maintaining a positive public image. Therefore, indirect speech use may represent a case study in the complementary ultimate adaptive functions and proximate psychological drivers of human behavior.

4. 2. Limitations and future directions

We report two limitations of the present research. First, although people are more willing to use indirect speech for unethical acts versus morally neutral acts (Lee & Pinker, 2010), the present research did not solicit speech acts from participants. Future research should explore whether people use indirect speech because of anticipated effects on moral permissibility and/or
accountability. A second limitation regards the relationship between moral permissibility and likelihood of unethical action. It is not clear whether participants construed “moral permissibility” in public (“what others think is right”) or private (“what I think is right”) terms. Notably, though, one might expect a strong relationship between public permissibility and accountability, as measured in the present work. That permissibility, but not accountability, predicted judgments of one’s own unethical action more than others’ action, indicates that permissibility and accountability may track different constructs – similar perhaps to private and public permissibility. Future work should examine more closely participants’ judgments of private permissibility, which may be more relevant to the goal of positive self-concept maintenance (Mazar et al., 2008), a construct we did not directly measure or manipulate.

4.3. Conclusions

Indirect speech may facilitate socially risky and in some cases unethical behavior, serving to reduce one’s accountability for making unethical proposals, while also casting the proposed behaviors in a more favorable moral light. Crucially, it is the latter effect on moral permissibility that predicts people’s reported willingness to behave unethically. In sum, the motorist who bribes the police officer with winks and nudges may do so not only to avoid public punishment, but also to maintain the sense that his actions are morally permissible by his own lights.

Acknowledgments
Many thanks to Steven Pinker, Aaron Kay, and Adam Waytz for comments on a previous draft of this manuscript and Delphine Courvoisier for statistical advice. This project was made possible by funding from the John Templeton Foundation and the Alfred P. Sloan Foundation.

References


Figure 2
Click here to download high resolution image

The diagram shows the % Variance Explained for two categories: Moral Permissibility and Accountability. The bars for Self are significantly higher than those for Other.

- Moral Permissibility:
  - Self: 17%
  - Other: 5%

- Accountability:
  - Self: 16%
  - Other: 14%
Figure 1. Values indicate mean judgments of public accountability, moral permissibility, and likelihood of unethical propositions, as well as the confidence in the intended message. Results are displayed separately for direct and indirect speech conditions, but collapsing across role (self versus other). Error bars indicate ± SEM.

Figure 2. Values indicate the percent variance in proposition likelihood judgments explained by the speech directness manipulation via accountability and moral permissibility, reported separately for judgments of self and other.
Supplementary Information for:
Chakroff, Thomas, Haque, & Young: “Dual functions of Indirect Speech”

1. Supplementary Study 1: Reduced accountability for self and other
2. Supplementary Study 2: Predicting likelihood of unethical action from accountability
3. Scenarios and Measures: Study 1
4. Scenarios and Measures: Study 2
5. Scenarios and Measures: Supplementary Study 1
6. Scenarios and Measures: Supplementary Study 2
1. Supplementary Study 1: The impact of indirect speech on perceived accountability

In prior work, participants judged another person to be less accountable (e.g., more likely to be acquitted) for an unethical proposition (e.g., offering a bribe to a police officer) using indirect versus direct speech (Lee & Pinker, 2010). Supplementary Study 1 tests whether people judge not only others but also themselves as less accountable when using indirect versus direct speech to propose a bribe.

Method. We tested 80 participants using Amazon Mechanical Turk. Participants were English speakers from the United States and paid 50 cents for their time. In a 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects design, participants read two versions of a hypothetical scenario, adapted directly from Lee & Pinker (2010): A driver is pulled over for speeding and subsequently attempts to bribe the police officer using either (1) direct speech or (2) indirect speech. Order was counterbalanced across participants (full text in Section 7 below). Directness was thus manipulated within participants. Role was manipulated between participants: participants read either (1) a scenario in which they were the hypothetical driver (self), or (2) a scenario in which the driver was another person (other). Participants were asked to imagine that the driver (self or other) was on trial for attempted bribery (Lee & Pinker, 2010), and to rate the likelihood that the driver would be held accountable, using a 101-point slider scale with anchors at “It is certain that the jury will acquit you / him” (0) and “It is certain that the jury will find you / him guilty” (100).

Results and Discussion. Accountability judgments were analyzed in a 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects ANOVA. Replicating prior findings (Lee & Pinker, 2010), participants judged drivers as less accountable when using indirect versus direct speech (main effect of directness, $F(1,78) = 79.41, p < 0.001, \eta^2_p = 0.50$). There was no significant main effect of role ($F(1,78) = 2.81, p = 0.1, \eta^2_p = 0.04$) or directness x role interaction ($F(1,78) = 0.01, p = 0.92$). These results provide initial evidence, consistent with prior work, that participants themselves also feel less accountable for making unethical propositions using indirect versus direct speech.
2. Supplementary Study 2: Predicting likelihood from perceived accountability

In Study 1 in the main text, indirect speech was associated with reduced accountability and also increased moral permissibility of unethical action, both of which mediated the effect of directness on likelihood judgments. In Study 2 in the main text, indirect speech increased the reported likelihood of acting unethically, even when indirect speech was used in describing an unethical behavior, but not part the behavior itself (as in the case of risky proposals). This effect was mediated by perceived moral permissibility, a mediation effect that was larger for judgments of one’s own action more than another’s action (i.e., moderated mediation; Preacher & Hayes, 2007). Here we aim to replicate the effect of speech directness on likelihood judgments, while also testing the role of accountability in mediating the effect.

Method. We recruited 40 Boston College undergraduates (9 male; $M_{\text{age}} = 19.2$, $SD_{\text{age}} = 1.1$), who participated in the study online for course credit. Two non-native English speakers were removed from analysis. In a 2 (directness: indirect versus direct) x 2 (role: self versus other) mixed-effects design, participants read eight scenarios describing a protagonist who acted unethically, described in neutral terms (e.g., glanced at someone else’s test answers, and changed some of your own answers; identical to scenarios in Study 2, see Section 5 below). In a between participant manipulation, the protagonist in all scenarios was either oneself or a stranger; role was randomly assigned.

In a within participant manipulation, each participant saw four direct and four indirect items; assignment of item directness was counterbalanced. Directness was specified as follows. Participants rated the protagonist’s likelihood of engaging in the acts using a scale from 1 (Not at all Likely) to 7 (Very Likely). The likelihood question contained a re-description of the act, using either indirect speech (e.g., “How likely would you be to do this: to check your answers”) or direct speech (e.g., “to cheat on the test”). After rating all eight items, participants re-read the items and rated the protagonist’s accountability on a 7-point scale (e.g., “If you were caught doing this (checking your answers), how likely would you be to get off the hook?”). For both likelihood and accountability scales, responses were averaged across the four direct and four indirect items for analysis.

Results and Discussion.

Likelihood. We found a marginal main effect of directness ($F(1,35) = 3.45, p = 0.07, \eta^2_p = 0.09$), indicating greater reported likelihood of unethical action described using indirect versus direct speech. Notably, though, the effect of directness depended on role (interaction, $F(1,35) = 7.39, p = 0.01, \eta^2_p = 0.17$), such that indirect speech increased one’s own likelihood of unethical action ($t(19) = 3.40, p = 0.003$), but not judgments of others’ likelihood of unethical action ($t(17) = -0.58, p = 0.57$). Finally, participants rated themselves as less likely than others to perform unethical acts (main effect of role, $F(1,35) = 68.67, p < 0.001, \eta^2_p = 0.66$).

Accountability. Participants rated protagonists as marginally less accountable for indirect versus direct items ($F(1,36) = 3.61, p = 0.066, \eta^2_p = 0.09$), reflecting the same basic pattern observed in Studies 1 and 2. We found no main effect of role ($F(1,36) = 0.004, p = 0.95, \eta^2_p < 0.001$), and no role × directness interaction ($F(1,36) = 0.004, p = 0.95, \eta^2_p < 0.001$).

Relationships between measures. Likelihood and accountability judgments were not significantly correlated, for the self ($r(40) = 0.25, p = 0.11$) or others ($r(36) = -0.04, p = 0.81$). Furthermore, conducting the ANOVA above for likelihood using accountability included as a covariate strengthened the previous results, contrary to what would be expected if accountability
were predictive of likelihood judgments (main effect of directness, $F(1,35) = 5.14, p = 0.03$, $\eta^2_p = 0.13$; main effect of role, $F(1,35) = 74.78, p < 0.001$, $\eta^2_p = 0.68$; interaction, $F(1,35) = 7.75, p = 0.009$, $\eta^2_p = 0.18$). In sum, indirect speech increased reported likelihood of unethical behavior when people reflected on their own (but not others’) actions; importantly, these judgments were not driven by participants’ perceptions of their public accountability.
3. Study 1. Scenarios and Measures

[Presently written for the Self condition. In the Other condition, personal pronouns in each story were replaced with the names John, Jane, Steve, and Sarah. Scenario order and proposition order were randomized.]

1. Imagine the following: You are a server at a small French restaurant. You work hard, and make a decent living off of tips. The owner allows servers to receive 25% off of meals they eat just before or after shifts. However, the cooks sometimes secretly give servers meals for free. You need to save some money, and want to get a free meal from the cooks. After your shift, you go to the kitchen and talk to the cooks.

[DS] Suppose you say: "Hey, it would be amazing if I could just get a turkey sandwich for free."
[IS] Suppose you say: "Hey, it would be amazing if there was an extra turkey sandwich lying around."

2. Imagine the following: You are about to take a difficult standardized test that is required for entry into competitive schools. Though you studied extensively for the test, you feel like you have no chance to pass. One of your classmates has taken the same test before, and got a great score, and still has a copy of the test. You want to see if she would be willing to show you her test. The day before the exam, you approach your classmate.

[DS] Suppose you say: "I'm really struggling here. Any chance I can look at your old test to get the answers?"
[IS] Suppose you say: "I'm really struggling here. Any chance I can look at your old test to get some inspiration?"

3. Imagine the following: You are on a first date, and want to take your date to one of the fancier restaurants in town. However, you do not have a reservation, and the restaurant has a 2-hour wait. You want to try to avoid the wait even without a reservation. You approach the maître d’ and gently place a twenty-dollar bill on his podium.

[DS] Suppose you say: "Hey, any chance I can pay you to get seated early?"
[IS] Suppose you say: "Hey, any chance we can get some great service tonight?"

4. Imagine the following: You are driving in an eastern European country and are pulled over for speeding. You don't think you were actually speeding, and have heard that some police officers in this country pull over foreigners in order to collect extra money from them (rather than to hand out tickets). You don't want to cause any trouble, and decide to go through with the transaction.

[DS] Suppose you say: "I'm sorry for speeding officer, would you take this bribe to settle things here without all the paperwork?"
[IS] Suppose you say: "I'm sorry for speeding officer, is there any way we can settle things here without all the paperwork?"
Participants answered each question for all scenarios in a block. Block order was randomized between participants.

How likely would you be to engage in this behavior?
   I would never do this 1 - 100 I would absolutely do this

How morally permissible was this behavior?
   Not at all Morally Permissible 1 - 100 Completely Morally Permissible

If you were caught attempting to do this, how likely would you be to "get off the hook"?
   Not at all Likely 1 – 100 Very Likely

The Certainty question block was always presented last.

1. How certain are you that the behavior described above was an instance of "attempted stealing"
2. How certain are you that the behavior described above was an instance of "attempted cheating"
3. How certain are you that the behavior described above was an instance of "attempted bribery"
4. How certain are you that the behavior described above was an instance of "attempted bribery"
   Not at all certain 1 – 100 Completely Certain
4. Study 2: Scenarios and Measures

Scenarios
[Presently written for the Self condition. In the Other conditions, personal pronouns in each story were replaced with the names Steve, Fred, Erin, Sarah, John, Greg, Emily, and Amy.]

1. Imagine the following: You are on a road trip, driving on a long straight country road in Nebraska. You are pulled over by a police officer, who informs you that you were going 75 in a 55 mph zone, which carries a $150 fine and 4 points off your license. You apologize profusely, and explain that you will be more careful next time. You hand the police officer your registration with a folded $50 bill underneath. The police officer returns the registration, and decides to let you off with a warning.

2. Imagine the following: You love music. Although you fondly look back on the days when you and your friends could go to the music store to peruse through the latest albums, you get music in a completely different way now. You go to websites, which allow you to download songs from any artist for free. Now you have over 200 albums of music you procured this way.

3. Imagine the following: You are taking a difficult standardized test that is required for entry into competitive schools. Though you studied extensively for the test, you are having a difficult time with it. The test-taker to your right seems to be flying through the test, almost bored by how easy it is. When that test-taker goes to the bathroom, you glance at some of her answers, and change some of your own.

4. Imagine the following: You are married, and recently discovered that you and your partner will soon be having your first child. There is a shop owner near your work that you find very attractive. You often talk for long periods during your lunch break. Sometimes you imagine making love to the shop owner, even when actually making love to your partner.

5. Imagine the following: You normally receive the newspaper at your house, but for the last two weeks, it has not been arriving. You suspect that someone must be taking it. You wake up early one morning, and see your neighbor taking your newspaper. The next day, you left a note on your his front door, saying that the next time your paper goes missing, you will throw a brick through his bedroom window.

6. Imagine the following: You are on your way to the supermarket, when you find someone's wallet lying on the sidewalk. You open it up, and see a driver's license, a few credit cards, business cards, and about $100 in cash. There also is a note that says 'if found, please call xxx-xxxx'. You take the cash, and then call the owner to arrange to return the wallet.

7. Imagine the following: You are on your way to the grocery store when you hear the sounds of scuffling down an alleyway. You peer down to see a teenager being roughed up by some older boys. It looks like they are trying to take the teenager's money. You make eye contact with one of the older boys, then turn your eyes away and keep walking. They continue to take the teenager's money.
8. Imagine the following: You were approached by a coworker who was in desperate need of money. He had moved across the country for work, and did not have enough money to cover his apartment security deposit. You leant him the cash, and gave him two months to repay. It has been a year, and he is still unable to repay the loan. However, you know that he has had a number of expensive medical emergencies recently. You tell him you are tired of waiting, and that you are taking him to small-claims court.

**Likelihood Measures**

[DS] How likely would you be to do this: to sue your coworker?
[IS] How likely would you be to do this: to get things settled?

[DS] How likely would you be to do this: to bribe the officer?
[IS] How likely would you be to do this: to make sure things go smoothly?

[DS] How likely would you be to do this: to illegally download music?
[IS] How likely would you be to do this: to do some music sharing?

[DS] How likely would you be to do this: to cheat on the test?
[IS] How likely would you be to do this: to check your answers?

[DS] How likely would you be to do this: to have adulterous thoughts?
[IS] How likely would you be to do this: to daydream a bit?

[DS] How likely would you be to do this: to threaten your neighbor with violence?
[IS] How likely would you be to do this: to give your neighbor something to think about?

[DS] How likely would you be to do this: to steal money out of their wallet?
[IS] How likely would you be to do this: to have a very lucrative afternoon?

[DS] How likely would you be to do this: to ignore the mugging?
[IS] How likely would you be to do this: to avoid getting involved?

**Moral Permissibility Measures**

[DS] How morally permissible would it be for you to do this: to bribe the officer?
[IS] How morally permissible would it be for you to do this: to make sure things go smoothly?

[DS] How morally permissible would it be for you to do this: to illegally download music?
[IS] How morally permissible would it be for you to do this: to do some music sharing?

[DS] How morally permissible would it be for you to do this: to cheat on the test?
[IS] How morally permissible would it be for you to do this: to check your answers?

[DS] How morally permissible would it be for you to do this: to have adulterous thoughts?
[IS] How morally permissible would it be for you to do this: to daydream a bit?

[DS] How morally permissible would it be for you to do this: to threaten your neighbor with violence?
[IS] How morally permissible would it be for you to do this: to give your neighbor something to think about?

[DS] How morally permissible would it be for you to do this: to steal money out of their wallet?
[IS] How morally permissible would it be for you to do this: to have a very lucrative afternoon?

[DS] How morally permissible would it be for you to do this: to ignore the mugging?
[IS] How morally permissible would it be for you to do this: to avoid getting involved?

[DS] How morally permissible would it be for you to do this: to sue your coworker?
[IS] How morally permissible would it be for you to do this: to get things settled?

Not at all Permissible 1 - 7 Very Permissible
5. Supplementary Study 1: Scenarios and Measures

[Presently written for the Self condition. In the Other condition, personal pronouns in each story were replaced with the name Kyle. DS = Direct Speech; IS = Indirect Speech]

You are in a hurry to drive from San Francisco to Los Angeles. Since it is late at night and there are hardly any cars on Interstate 5, you floor it and start making great time. Before too long, however, you are pulled over by a Highway Patrol officer. The officer comes up beside your window and shines a bright flashlight on your face. The officer says, “Hey, buddy. Did you know that the speed limit here is seventy miles per hour? You were doing over ninety.” You say, “I didn’t realize I was going so fast.” The officer says, “Well, you were. Please show me your driver’s license.”

You have a history of moving violations, so you are worried that another ticket will boost your insurance costs and result in the suspension of your license. You decide to try to bribe the officer. You slowly get out your wallet and hold it out to the officer. The corner of a 50-dollar bill is protruding from your wallet ever so slightly.

[DS] You say, “I’m very sorry, officer. If I give you a fifty, will you just let me go?”
[IS] You say, “I’m very sorry, officer. I know that I was speeding, and that I’ll have to pay for my mistake.”

Suppose that the officer arrests you for attempted bribery. During the trial the officer tells the court and the jury exactly what happened and what was said during the night in question. You testify in your own defense. Your account of what happened is similar to the officer’s. You claim that the fifty-dollar bill was sticking out of your wallet on accident and that you did not mean to offer a bribe. To find you guilty of attempted bribery, the jury must find that the evidence establishes his guilt beyond a reasonable doubt.

Which of the following do you think is the most likely outcome of your trial?

It is certain that the jury will acquit me 1 - 100  It is certain that the jury will find me guilty
6. Supplementary Study 2: Scenarios and Measures

Note, Scenarios in Supplementary Study 3 are identical to those in Study 2

Measures
[DS] If you were caught attempting to do this (bribe the officer), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (make sure things go smoothly), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (illegally download music), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (some music sharing), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (cheat on the test), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (check your answers), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (have adulterous thoughts), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (daydream a bit), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (threaten your neighbor with violence), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (give your neighbor something to think about), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (steal money out of their wallet), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (have a very lucrative afternoon), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (ignore the mugging), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (avoid getting involved), how likely would you be to "get off the hook"?

[DS] If you were caught attempting to do this (sue your coworker), how likely would you be to "get off the hook"?
[IS] If you were caught attempting to do this (get things settled), how likely would you be to "get off the hook"?