# Here's a Tip: Prosocial Gratuities Are Linked to Corruption

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Abstract

We investigated the link between tipping, an altruistic act, and bribery, an immoral act. We found a positive relationship between these two seemingly unrelated behaviors, using archival cross-national data for 32 countries, and controlling for per capita GDP, income inequality, and other factors. Countries that had higher rates of tipping behavior tended to have higher rates of corruption. We suggest that this surprising association may be accounted for by temporal focus—people may tip and bribe others in order to receive special services in the future. Indeed, in a pair of follow-up survey studies, we find evidence that the link between tipping and bribery can be partly accounted for by prospective orientation.


Keywords: Tipping, bribery, gratuities, temporal focus, corruption

Here's a Tip: Prosocial Gratuities are Linked to Corruption

Which country is more likely to be plagued by corruption: one where people generously tip their waiters, or one where they walk away without leaving any gratuity at all? Many people might assume the latter, but we advance the counterintuitive idea that the former is more likely to be true. It may seem strange to associate corrupt behaviors, such as bribery, with altruistic behaviors, such as tipping. But, in fact, tips and bribes can possess striking similarities that may lead to their positive association. In a sense, both are gifts intended to strengthen social bonds and each is offered in conjunction with advantageous service. One could even argue that the main difference between the two acts is merely the timing of the gift: Tips follow the rendering of a service, whereas bribes precede it.

Although the line between tips and bribes is clear in modern-day Western societies, an examination of the historical origins of tipping practices paints a blurrier picture (see Lynn, Zinkhan, & Harris, 1993). According to one perspective, tipping customs trace back to the Middle Ages, when feudal lords traveling beyond their territory would toss coins to beggars whom they passed along the way—the lords hoped such an act of kindness would help ensure safe passage (Schein, Jablonski, & Wohlfahrt, 1984). According to another perspective, tipping originated from the custom of "vails," which was popular in Tudor England; guests who stayed overnight were expected to leave payment for their hosts' servants after their stay, to compensate them for the extra work created by their visit (Shamir, 1984). While the latter perspective may appear more in line with popular connotations of tipping (the gratuity follows the rendering of a service), the former may appear more in line with the notion of a bribe (the gratuity precedes the rendering of a service).

A positive association between tipping and bribery may not seem intuitive to the layperson. To test this idea, we asked 51 participants from a national online pool to consider several variables that might be related to the incidence of bribery in a particular country and to describe the nature of this relationship using four options: (1) probably positively related, (2) probably negatively related, (3) probably not related, and (4) I don't know. The list of variables included GDP, income inequality, rate of violent crime, tipping frequency, and a host of other factors. For the relationship between tipping and bribery, just 5.9% of the respondents (n = 3) thought they were 'probably positively related'. Another 11.8% (n = 6) thought they were 'probably negatively related', and 78.4% (n = 40) thought they were 'probably not related'. The remaining 3.9% (n = 2) indicated they did not know.

In the current research, we examine whether the link between tipping and bribery differs from these intuitive predictions. In particular, we expect to find a positive association between the two practices. We also propose a possible psychological explanation for this surprising link—temporal focus. Psychologists have developed a keen interest in temporal focus, investigating the relative influence of distant-future versus near-future actions (Trope & Liberman, 2003), systematic biases in representations of future events (Liberman & Trope, 1998), and the distortion of expectations based on past experience (Johnson & Sherman 1990). Here we investigate whether temporal focus, in the form of retrospective versus prospective differences, can account for a connection between bribery and tipping. In short, to the extent that people provide tips to encourage better service in the future (as opposed to, say, rewarding good service in the past), we expect to find a positive connection between tipping and bribery.

Study 1

To test our hypothesis about the connection between tipping and bribery, we use archival data about both practices drawn from independent sources. Our data on national differences in tipping practices come from a previous study (Lynn, Zinkhan, & Harris, 1993) that estimated the prevalence of tipping in 32 countries. Using data gathered from *The International Guide on Tipping* (Star, 1988), Lynn, Zinkhan, and Harris coded 33 different service professions (e.g., waiters, cabdrivers, hairdressers, etc.) in each country as likely to be "tipped" or "not tipped" (1=tipped; 0=not tipped). We include every country for which data is available, and construct our index using the same method used by Lynn et al. (1993): The tipping score is equivalent to the number of professions coded as likely to be "tipped." A higher score indicates a greater prevalence of tipping in the focal country (the scores range from 3-31).

We link these data on tipping practices to each country's score on the Corruption Perception Index (CPI), a ranking produced by Transparency International (2005) that has been used in past research on national differences in corruption (e.g., Fisman & Miguel, 2005). The CPI is calculated using data from 13 sources originated from 11 independent institutions (e.g., Global Insight and Merchant International Group). Country experts (both resident and non-resident) are asked to assess the frequency and magnitude of bribery in the public and political sectors. Reliability is generally strong as demonstrated by the high average correlation between sources (.78). We use a reverse coding of the CPI index as our measure of corruption. The range of this variable is 1 to 10, with 1 indicating almost no corruption and 10 indicating extremely high levels of corruption.

Table 1 presents correlations and summary statistics for the variables we include in our model. As shown in the table, the correlation between tipping and corruption is positive and

statistically significant (r = .60, *p* < .05). Figure 1 depicts the link between tipping prevalence

and corruption levels in more detail. Further, we present the results of linear regression models in

Table 2. The table shows both unstandardized coefficients and standardized (β) coefficients for

the estimated effect of tipping on corruption (we report only the unstandardized coefficients

reported for other covariates to preserve space). For all coefficients, we report White standard

errors, which are robust to heteroscedasticity.

We first estimate a model including only our measures of tipping prevalence and

corruption. The estimated coefficient of the *33-profession tipping index* is b = .18 (β = .65, *p* <

.01), meaning that one additional profession receiving tips is associated with an increase of .18

on the corruption scale. We recognize there might be alternative explanations for the association

between tips and bribes. For example, differences in national cultures could potentially drive

variation in the prevalence of both tipping and bribery. Indeed, Mazar and Aggarwal (2011)

found that collectivism is positively associated with the prevalence of bribery across nations. We

therefore include Hofstede's (2001) *Individualism Index* as a control variable. We also include

another one of Hofstede's cultural dimensions, the *Power Distance Index*, which captures the

extent to which power is distributed unequally among a nation's citizens and the extent to which

citizens who are less powerful accept that disparity. Power distance could be a driver of both

tipping and bribery practices, given that bribes and tips typically are passed between people who

hold different levels of power and influence. Consistent with these ideas, we find that

individualism is negatively associated with corruption and that power distance and tipping are

positively associated. However, even after controlling for each country's score on the *Power

Distance Index* and the *Individualism Index*, the association between corruption and tipping

remains positive and significant (b = .08, β = .27, *p* < .01).

We also recognize that variability in economic necessity could lead to different opportunities and incentives for initiating both tipping and bribery transactions. People who live in wealthier countries might find it easier to part with tips and bribes because they have more resources to spare; alternatively, poor people might have a greater need to solicit both tips and bribes. To rule out this alternative explanation, we use information on both GDP per capita (logged) and income inequality. We obtained information on real GDP per capita from the Penn World Tables 6.3 for the year 2005 (Heston et al., 2009). To capture income inequality, we used the Gini Index (United Nations Development Programme, 2009), a commonly used measure of dispersion. The Gini coefficient is a number between 0 and 1, where 0 indicates perfect income equality (everyone has the same income) and 1 indicates perfect inequality (one person has all the income, and everyone else has zero income). As shown in Model 1, controlling for GDP per capita and income inequality reduces the strength of the relationship between corruption and tipping, but the relationship remains positive and significant ($b = .05$, $\beta = .18$, $p < .05$).

We also include a number of measures that capture variations in governmental involvement and order, which could be driving this connection between tipping and bribery. In particular, we control for the national homicide rate (United Nations Office on Drugs and Crime, 2009), which is the crime statistic that is most directly comparable across countries. We also control for the impact of civil liberty restrictions (Freedom House 2009) with a measure that captures the extent to which the government is involved with its citizens in a coercive manner. Finally, we include three variables that capture the extent of governmental welfare policies: We obtained the highest marginal tax rate in each country (Nation Master 2011), the legal minimum wage (Various Sources 2011), and the extent to which a state provides public funding of healthcare as a fraction of total healthcare expenditures (World Health Organization 2011). The

positive link between tipping and corruption holds when we add these variables to the model (b =

.05, β = .17, p < .01).

A final consideration is potential uneven variance, or heteroscedasticity, in the data.

Because all regression results use White standard errors, which are robust to heteroscedasticity,

this does not cause issues with statistical inference. However, it raises the interesting question of

whether tipping prevalence interacts with other characteristics of a country. For example, one

might wonder if tipping attitudes are especially important in lower income countries or those that

are less effectively governed, presumably because such countries lack alternative means of

suppressing bribery. Given the limited number of observations, and multicollinearity among

variables, it is difficult to answer these questions using subgroups or moderation analysis, but

this is a promising avenue for future research.

*Discussion*

The results of Study 1 offer evidence that countries with a higher incidence of tipping

also have a higher incidence of bribery and vice versa. While provocative, these results offer

little explanation for why tips and bribes might be positively associated. In the next pair of

studies, we highlight an underlying psychological mechanism more directly. In particular, we

suspect that one link between tipping and bribery is temporal focus—a preference for tipping

with a prospective orientation (i.e., to encourage good service in the future) is likely to be

associated with higher tolerance for bribery practices.

In Study 2, we begin by isolating two countries in the sample from Study 1 that had

nearly identical scores on the tipping index, but had very different scores on the corruption (i.e.,

bribery) index: Canada and India (corruption scores of 2.9 and 8.1, respectively). We suspect that

despite the similar prevalence of tipping in the two countries, Canadian and Indian citizens'

attitudes toward the practice are different in one critical respect: Indians are more inclined than Canadians to tip prospectively, that is, in the hope that a tip will bring about better service in the future. We suggest that this prospective orientation can account for cross-national differences in their attitudes toward bribery.

<div align="center">Study 2</div>

*Method*

95 Canadian citizens (39 men, 56 women) and 157 Indian citizens (116 men, 41 women) participated in this study. Following are brief descriptions of the measures included in the survey, which was completed in English.

Future tipping motivation was measured using five items rated on a 7-point scale ranging from *not at all* to *very much*. Participants were asked to think about "all the situations in which you chose to tip someone," and rate the extent to which each statement described their reasons for tipping. Sample items include "I want to motivate this person to give me good service in the future" and "I want to establish a personal relationship with the person, as this may be helpful down the line." The items were averaged to create an overall score (Future Tipping Motivation, $\bar{x}$=5.0, SD=1.3; $\alpha$ = .82).

Participants were also asked to complete a five-item bribery attitude measure taken from a Gallup (2006) survey. Each of these items was rated on a 7-point scale ranging from *morally acceptable* to *morally wrong*. The Gallup bribery measure instructed participants to evaluate the morality of several purportedly corrupt actions, including "bribing a policeman to avoid a traffic ticket" and "bribing a government official to avoid a tax audit." The items were averaged to create an overall score (Bribery Attitudes, $\bar{x}$=5.6, SD=1.5; $\alpha$ = .89).

*Results*

Men had reported more favorable attitudes toward bribery than did women, $F(1,249)=14.52$, p<0.001. This effect remained significant after controlling for country $F(1,249)=5.97$, p<0.05. We therefore included gender as a control variable in each of our analyses.

As expected, when controlling for gender, Indians ($\bar{x}$=5.3, SE=0.1) rated bribery as more morally acceptable than did Canadians ($\bar{x}$=6.2, SE=0.1), $F(1, 249)=11.1$, p<0.01. Indians ($\bar{x}$=5.2, SE=0.1) also provided higher ratings on the Future Tipping Motivation scale than did Canadians ($\bar{x}$=4.8, SE=0.1), $F(1,1)=4.1$, p<0.05, suggesting that Indians were more likely than Canadians to tip in order to incent future service. In addition, Future Tipping Motivation was significantly and positively correlated with Bribery Attitudes, $F(26, 250)=1.9$, p<0.01, indicating that participants who reported a higher motivation to tip in order to encourage future good service were more inclined to view bribery as morally acceptable.

*Mediation Analysis*. Finally, we tested our hypothesis that Future Tipping Motivation accounts for the effect of nationality on bribery attitudes using the bootstrapping method for testing indirect effects (see Preacher & Hayes, 2004; Shrout & Bolger, 2002). In accordance with our mediational account, the coefficient for the indirect effect of Future Tipping Motivation on Bribery Attitudes was .60, and the 95% bias-corrected confidence interval ranged from .0043 to .1628 (1,000 bootstrap re-samples). Given that the confidence interval excluded zero, we can conclude that a prospective orientation toward tipping mediated the link between nationality and bribery attitudes.

*Discussion*

The results from Study 2 are consistent with our hypothesis that the link between bribery and tipping can be accounted for by cross-cultural differences in temporal focus, particularly as it

relates to tipping practices. These results also suggest a potential extension: if cross-cultural differences in attitudes toward bribery are driven by temporal focus, it seems reasonable to assume that differences in temporal focus, at the individual level, will relate to bribery attitudes in the same way, even for citizens of the same country. Thus, adopting a more prospective focus toward tipping practices should lead directly to a greater tolerance toward bribery practices.

Our final study, then, is intended to examine this possibility by examining the link between temporal focus and attitudes toward bribery using participants from a single country (the USA in this case) in a controlled experiment, in which we manipulate temporal focus, as it relates to tipping practices. In this final study, we also control the context in which individuals are asked to consider gratuities, thereby addressing the possibility that the relationship between tipping and bribery observed in Study 2 may have been due to Canadians and Indians considering systematically different situations. Finally, we have proposed that a prospective focus toward tipping can account for differences in bribery attitudes, but perhaps the same could be said for any temporal focus. To eliminate the possibility that these results could be driven by *any* temporal focus, we manipulate both prospective and retrospective motivations to tip in our experimental study.

<div align="center">Study 3</div>

*Method*

40 undergraduates at a large west coast university (21 females) participated in this study. Participants were given $10 for their time.

Participants were told they would participate in two separate studies, and that the first study involved attention span and reading comprehension. To manipulate temporal focus in tipping motivation, participants were asked to read an article about tipping that was ostensibly

published on the Emily Post website (Emily Post is a recognized authority on proper etiquette in

the United States). We randomly assigned participants to one of two conditions. In the Future

Motivation Condition, the article was titled "Basic Tips on Tipping: Encouraging Good Service,"

and described how tips can encourage future good service. In the Past Motivation Condition, the

article was titled "Basic Tips on Tipping: Rewarding Good Service," and described how tips can

reward past good service. For example, the article in the Future Motivation Condition noted that

residents in a doorman-building should tip the doorman in order to  "encourage particularly good

service," while the article in the Past Motivation Condition noted that people should tip the

doorman in order to "reward superlative service."

Participants were then told that they would be taking part in a separate study concerning

media and attitudes. At that point, they were asked to watch a one-minute news report produced

by *SmarTrend News* (a company that produces online stock market update videos) in 2010.

According to the reporter pictured in the video, the U.S. Justice Department and the Securities

Exchange Commission were investigating a possible $10.3 million bribe that Hewlett-Packard

paid to Russia to win a €35 million contract. Participants reported the extent to which they

thought the bribery described in the video was morally wrong (on a 7-point scale anchored by

*Not At All* to *Extremely*), how harshly the company should be punished if the company was

found guilty of bribery (on a 7-point scale anchored by *Not At All* to *Maximum Possible*

*Punishment*), and the extent to which they thought the crime described in the video was severe

(on a 7-point scale anchored by *Not At All* to *Extremely*). Given that the overall reliability for

these three items was adequate (.78), we averaged them to create an overarching measure of

bribery attitudes.

Participants then completed a separate, validated measure of bribery attitudes (Napal, 2005). In this measure, participants read a vignette that described a wealthy businessman who was convicted of a crime that he claimed he did not commit. According to the vignette, the facts seemed to confirm that the businessman was guilty, and that the man paid a judge to be partial to his case. Participants then reported their attitudes towards the businessman's actions on seven 7-point scales ranging from *Fair* to *Unfair, Just* to *Unjust, Culturally Acceptable* to *Culturally Unacceptable, Violates an Unwritten Contract* to *Does Not Violate an Unwritten Contract* (reverse coded)*, Traditionally Acceptable* to *Traditionally Unacceptable, Violates an Unspoken Promise* to *Does Not Violate an Unspoken Promise* (reverse coded)*, and *Acceptable to Family* to *Unacceptable to Family* (Napal, 2005). The overall reliability of these items was 0.86, and the items were averaged together for analysis.

Participants also completed the Balanced Inventory of Social Desirability Responding (BIDR). The BIDR is a 20-item scale that measures the extent to which respondents may be engaging in conscious and unconscious deception (Paulhus, 1991; Paulhus, 1998). For example, the scale includes items that require participants to report whether "I always obey laws, even if I'm unlikely to get caught" and "There have been occasions when I have taken advantage of someone" (reverse coded) on 7-point scales anchored by *Not True* to *Very True.* The overall reliability of the scale was .76, and the items were averaged together for analysis.

*Results*

Independent-samples t-tests revealed that participants in the Future Motivation Condition (M = 4.68, SD = 1.16) evaluated the bribery described in the video less negatively than did participants in the Past Motivation Condition (M = 5.30, SD = .55), $t(38) = 2.14$, $p < .05$. The effect of gender on evaluations of the video were not significant, $t(38) = -0.06$, *ns*, and the effect

of condition on evaluations of the video remained significant after controlling for gender $F(1, 38) = 5.05$, $p < .05$. To rule out the possibility that the observed results were confounded by differences in social desirability between the two conditions, we controlled for BIDR. The effect of condition on evaluations of the reported bribery remained significant, $F(1, 38) = 4.37$, $p < .05$.

Independent-samples t-tests also revealed that participants in the Future Motivation Condition (M = 4.42, SD = .95) valuated the bribery described in the vignette less negatively than did participants in the Past Motivation Condition (M = 5.26, SD = 1.05), $t(38) = 2.66$, p < .01. The effect of gender on evaluations of the vignette were not significant, $t(38) = 0.33$, *ns*, and the results remained significant after controlling for gender $F(1, 38) = 6.76$, $p < .01$. Again, to rule out the possibility that the observed results were confounded by differences in social desirability between the two conditions, we controlled for BIDR. The effect of condition on evaluations of the bribery described in the vignette remain significant, $F(1, 38) = 7.62$, $p < .01$.

General Discussion

The present research suggests that the line between tips and bribes is fine, and, in many cases, blurred. At first blush, tipping and corrupt practices, such as bribery, may seem completely unrelated. However, we suggest that tips and bribes both emanate from similar norms of exchange—indeed, the timing of the gratuity may be the key distinguishing feature between these two acts. This subtle temporal distinction may help explain why tipping and bribery practices are positively correlated across countries even though many individuals perceive them as diametrically opposed from a moral standpoint. The link between tips and bribes appears primarily for those whose tipping is motivated by a prospective orientation (to obtain advantageous service in the future), not for those who have a retrospective orientation (to reward advantageous service in the past). The studies presented here thus highlight a psychological

mechanism that may help explain the surprising association between tipping and bribery both within and across countries.

A voluminous body of research has examined the critical role that temporal focus plays in shaping individuals' attitudes, decision-making, and goal setting (Trope & Librman, 2003; Liberman & Trope, 1998; Chandran & Menon, 2004; Johnson & Sherman 1990, Koehler 1991). In the present research, we examine temporal focus in a novel context—social exchange—and suggest that different forms of exchange may be linked by a common prospective orientation. Building on these results, future research might investigate whether broad individual differences in temporal focus (e.g., as measured by the Zimbardo Time Perspective Inventory [Zimbardo & Boyd, 1999]), can help explain the positive association between bribery and tipping. In addition, future work might explore whether other temporal differences, such as short-term versus long-term time horizons, can help explain preferences for exchange. Indirect forms of reciprocity (e.g., generalized exchange) may be better suited to a longer-term perspective whereas direct reciprocity may require a short-term view. Further, differences in temporal horizon might account for specific cultural patterns of exchange, such as the Brazilian Jeitinho (Ferreira et al., 2011) and the Chinese Guanxi (Chua et al 2009).

While the current results are provocative, they are not conclusive. Future research should gather additional evidence to examine the robustness of our findings and further clarify the underlying psychological mechanism. For example, using an implicit prime to activate a retrospective temporal focus might make people less tolerant of bribery behavior in the future. Along a similar vein, it might be worthwhile for future studies to attempt an intervention. Perhaps encouraging people to provide tips that reward past service, in general, might simultaneously undermine the motivation to bribe government officials, in particular. In sum,

much more remains to be learned about the intriguing link between tips and bribes—what we

learn could help us gain new insight into these unique forms of exchange.

References

Chandran, S. & Menon, G. (2004). When a day means more than a year: Effects of temporal

    framing on judgments of health risk, *Journal of Consumer Research*, *31(2)*, 375-389.

Chua, Roy Y.J., M.W. Morris, and P. Ingram. (2009). Guanxi versus Networking: Distinctive

    Configurations of Affect- and Cognition-based Trust in the Networks of Chinese and

    American Managers. *Journal of International Business Studies* 40, no. 3: 480-508.

Ferreira, Maria Cristina, Ronald Fischer, Juliana Barreiros, Ronaldo Pilati, & Taciano L.

    Milfont. (2011). "Unraveling the Mystery of Brazilian Jeitinho: A Cultural Exploration of

    Social Norms." *Personality and Social Psychology Bulletin*.

Fiske, A. (1991). *Structures of Social Life: The Four Elementary Forms of Human Relations.*

    New York: Free Press (Macmillan).

Freedom House, (2009). "Freedom in the World." Retrieved from

    http://www.freedomhouse.org/.

Heston, A., et al. (2009). "Penn World Table Version 6.3." Retrieved from

    http://pwt.econ.upenn.edu/.

Johnson MK, Sherman SJ. 1990. Constructing and reconstructing the past and the future in the

    present. See Higgins & Sorrentino 1990, pp. 482–526.

Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near

    and distant future decisions: A test of temporal construal theory. *Journal of Personality*

    *and Social Psychology, 75,* 5-18.

Lynn, M., Zinkhan, G., and Harris, J. (1993). Consumer Tipping: A Cross-Country Study,

    *Journal of Consumer Research*, 20, 478-485.

Mazar, Nina, and Pankaj Aggarwal. 2011. "Greasing the Palm: Can Collectivism Promote

Bribery?" *Psychological Science* 22(7): 843-848.

Nation Master, 2011. "Highest Marginal Tax Rate, Individual Rates." Retrieved from

http://www.nationmaster.com/graph/tax_hig_mar_tax_rat_ind_rat-highest-marginal-tax-

rate-individual

Star, N. (1988). *The International Guide to Tipping*. New York. Berkley Trade.

Transparency International. (2005). "Corruption Perceptions Index." Retrieved from

http://www.transparency.org/surveys/.

Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review, 110,* 403–421.

United Nations Development Programme. (2009). "Human Development Report." Retrieved

from http://hdr.undp.org/.

United Nations Office on Drugs and Crime. (2009). "The Tenth United Nations Survey of Crime

Trends and Operations of Criminal Justice Systems." Retrieved from

http://www.unodc.org/.

Various Sources. (2011). "List of minimum wages by country." Compiled from various sources

(full list of references available online) and retrieved from

http://en.wikipedia.org/w/index.php?title=List_of_minimum_wages_by_country&oldid=

468054140

World Health Organization. (2011). "Table of key indicators for all countries (World Health

Statistics Table), 2005-2009." Retrieved from

http://apps.who.int/nha/database/StandardReport.aspx?ID=REPORT_2_WHS

Zimbardo, P. & Boyd, J. (1999). Putting Time in Perspective: A Valid, Reliable Individual-

Differences Metric. *Journal of Personality and Social Psychology, 77,* 1271-1288.

Table 1: Correlations and summary statistics

|  |  | Mean | S.D. | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | Bribery | 4.23 | 2.39 | | | | | | | | | | |
| (2) | 33-profession tipping index | 20.00 | 8.08 | 0.60* | | | | | | | | | |
| (3) | Individualism index | 58.79 | 22.25 | -0.75* | -0.39* | | | | | | | | |
| (4) | Power distance index | 46.59 | 20.32 | 0.76* | 0.45* | -0.62* | | | | | | | |
| (5) | GDP per capita (logged) | 10.01 | 0.64 | -0.82* | -0.40* | 0.70* | -0.67* | | | | | | |
| (6) | Income inequality | 36.13 | 8.64 | 0.75* | 0.57* | -0.56* | 0.54* | -0.68* | | | | | |
| (7) | Homicide rate (per 100.000) | 5.69 | 10.24 | 0.58* | 0.26 | -0.65* | 0.51* | -0.58* | 0.73* | | | | |
| (8) | Civil liberty restrictions | 1.52 | 0.83 | 0.83* | 0.30 | -0.78* | 0.62* | -0.83* | 0.58* | 0.71 | | | |
| (9) | Highest marginal tax rate | 0.41 | 0.09 | -0.54* | -0.56* | 0.37* | -0.53* | 0.55* | -0.64* | -0.45 | -0.44* | | |
| (10) | Minimum wage ($1000) | 10.64 | 7.34 | -0.48* | -0.19 | 0.49* | -0.45* | 0.49* | -0.23 | -0.28 | -0.38* | 0.45* | |
| (11) | Public funding of healthcare | 0.07 | 0.02 | -0.52* | -0.19 | 0.58* | -0.44* | 0.69* | -0.46* | -0.48 | -0.72* | 0.48* | 0.21 |

A star (*) denotes significant correlations (p<.05)

Table 2: Country-level predictors of corruption

|                                      | Model 1 | Model 2 | Model 3 | Model 4 |
|--------------------------------------|---------|---------|---------|---------|
| 33-profession tipping index          | 0.18**  | 0.08**  | 0.05*   | 0.05**  |
|                                      | (0.03)  | (0.02)  | (0.02)  | (0.01)  |
|                                      | *0.65**| *0.27**| *0.18*| *0.17**|
|                                      | *(0.00)*| *(0.00)*| *(0.03)*| *(0.00)*|
|                                      |         |         |         |         |
| Individualism index                  |         | -0.04** | -0.02   | -0.00   |
|                                      |         | (0.01)  | (0.01)  | (0.01)  |
| Power distance index                 |         | 0.05**  | 0.03*   | 0.03**  |
|                                      |         | (0.02)  | (0.01)  | (0.01)  |
| GDP per capita (logged)              |         |         | -1.19** | 0.36    |
|                                      |         |         | (0.29)  | (0.45)  |
| Income inequality                    |         |         | 0.05    | 0.15**  |
|                                      |         |         | (0.03)  | (0.03)  |
| Homicide rate (per 100.000)          |         |         |         | -0.09*  |
|                                      |         |         |         | (0.03)  |
| Civil liberty restrictions           |         |         |         | 2.09**  |
|                                      |         |         |         | (0.47)  |
| Highest marginal tax rate            |         |         |         | 4.23*   |
|                                      |         |         |         | (1.55)  |
| Minimum wage ($1000)                 |         |         |         | -0.05*  |
|                                      |         |         |         | (0.02)  |
| Public funding of healthcare         |         |         |         | 10.84   |
|                                      |         |         |         | (9.87)  |
| Constant                             | 0.70    | 3.10*   | 13.26** | -11.57* |
|                                      | (0.53)  | (1.39)  | (2.96)  | (5.35)  |
| Observations                         | 32      | 29      | 29      | 29      |
| R-squared                            | 0.42    | 0.76    | 0.84    | 0.95    |

Unstandardized regression coefficients are reported, with robust (White) standard errors in parentheses. Beta coefficients and p-values reported in italics for 33-profession tipping index.

* p<.05, ** p<.01

Figure 1: Country-level association between tipping and corruption