An Inquiry into Corruption Norms: Survey Data of GRIPS Alumni

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Abstract

Corruption norms are standards shared by members of a society regarding moral attitudes of approval and disapproval toward corruption.   Finding out how to deal with corruption norms is a challenge for state building and economic development.   This study attempts to deepen our understanding of two aspects of corruption norms.   The first is about how precisely the norms specify the distinction between acceptable and unacceptable behaviors.   The second is about the empirical validity of the view that corruption norms keep changing and can be changed.   This study attempts to offer new insights into these issues by using survey data of alumni of the National Graduate Institute for Policy Studies (GRIPS), Japan, who are mostly government officials in 58 countries.

1. Introduction

Corruption hampers state building and economic development. Corrupt officials and politicians embezzle funds intended for the provision of basic public services and the construction of infrastructure (e.g., Shleifer and Vishny, 1993; Reinikka and Svenson, 2005; Olken, 2007). Corruption makes the political legitimacy of the state more dubious and undermines democracy (e.g., Rose-Ackerman, 1999). Bribes discourage firms' investments, including foreign direct investments, like taxes (e.g., Mauro, 1995; Wei, 2000), but bribes damage firm growth more severely than taxes (Fisman and Svensson, 2007), probably because the secrecy and uncertainty accompanied by bribery increase transaction costs higher (Shleifer and Vishny, 1993). Cross-country studies find that corruption hinders the economic growth of developing countries significantly (e.g., Mauro, 1995).

An approach to combating corruption is to impose more severe penalties and increase the probability of detection and punishment. Becker and Stigler (1974) argue that the level of deterrence expenditure is optimal when the marginal cost of deterrence equals the marginal benefit. Compelling evidence for this view was unavailable because of the difficulty in measuring corruption directly. Recently, however, excellent studies by Olken (2007), Fisman and Miguel (2007), Reinikka and Svensson (2011), and Ferraz and Finan (2011) among others have used natural experiments and randomized controlled trials to show that strict audits, media campaigns, and other carrot-and-stick approaches serve as effective deterrents to corruption. For example, one media campaign that provided schools and parents with information to monitor local officials' handling of school subsidies reduced the local capture of the subsidies

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drastically (Reinikka and Svensson, 2011).

These empirical results are encouraging but do not assure success in corruption eradication. As Rose-Ackerman (1999), Fisman and Miguel (2007), and many others argue cogently, citizens, government officials, and politicians in corrupt societies tend to be more accepting of corrupt behaviors than those in clean societies. Such a social norm dampens the enthusiasm for efforts to reduce corruption, stifles the effect of the efforts in the long run, and perpetuates corruption. Finding out how to deal with corruption norms is a challenge for state building and economic development.

This study attempts to address two issues about corruption norms.[1] There is no consensus about the definition of corruption norms. This study refers to them as social attitudes of approval or disapproval toward corrupt behaviors. Recently, an important contribution to the literature was made by Truex (2011). His point is that because corruption comprises various types, corruption norms should be gauged not only by the general extent of corruption acceptance but also by the pattern of attitudes toward different types of corruption. Indeed, he shows that citizens in Kathmandu, Nepal, have varying attitudes toward different types of corrupt behaviors. Since Nepal is a corrupt country according to corruption rankings such as Transparency International's Corruption Perception Index (CPI), he argues that such a variation is a feature of corruption norms in corrupt societies. This part of his argument, however, could be more persuasive if the Nepalese society were compared with a less corrupt society. The first issue of the present study is to provide such a comparison group.

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[1] This study focuses on demographically widespread corruption undertaken by a large proportion of government officials. The other kind of corruption includes monopolistic corruption in monarchies, oligarchies, and autocracies. See Shleifer and Vishny (1993) for details.

For this purpose, a survey of the alumni members of the National Graduate Institute of Policy Studies (GRIPS) was administered through the internet by using a questionnaire that contains the same questions used by Truex (2011). GRIPS is the leading graduate school of policy studies in Japan. The vast majority of its student body consists of mid-career government officials, and two-thirds of them are from the outside of Japan. 315 graduates from 58 countries responded to this survey, thereby providing a comparison group consisting of highly educated officials in a number of countries with varying CPI rankings and income levels. Our data indicate that in high-income countries, corruption is almost always unacceptable for most respondents regardless of the type of corrupt behaviors, while in low-income countries, such behaviors may or may not be acceptable depending on the person and the details of situation or the context. We also find that government officials in low-income countries and ordinary citizens in Nepal in particular have significantly different attitudes to some types of corruption, and that their differences lack a clear pattern. Such corruption norms in low-income countries would be a source of uncertainty and unpredictability and, hence, high transaction costs.

From these observations, a question arises as to whether developing countries can detach themselves from traditional corruption norms and adopt a new social norm that encourages individuals to maintain strict attitudes toward corruption. Rose-Ackerman (1999, p. 110) argues that corruption norms are "dynamic and constantly changing." Sah (2007) has developed a theoretical model explaining the dynamics of corruption norms. In this model, public and private actors individually choose whether or not to be corrupt, based on their current perceptions of gains, costs (legal, economic, and

social sanctions), and detection probability, which are formed and revised over time based on their personal experiences, acquaintances' experiences, education, media, and all other information, and their choices in turn influence their own and others' future perceptions. Thus, individuals' attitudes toward corruption change with the times, together with their perceptions of the functioning of institutions that affect the gains, costs, and detection probability of corruption.

Although testing or estimating Sah's dynamic, general equilibrium model is too much to hope for, our second issue is to examine whether our data of GRIPS alumni are consistent or inconsistent with some of the predictions of the Sah model. Our descriptive analysis finds that the corruption norms of a country are correlated with the perceived quality of the audit system and the media of the country and with the perceived attitude of the compatriots toward corruption, which is consistent with the model's prediction. We also use a regression approach, looking at the association between government officials' self-rated discipline and socio-economic characteristics, and find that older cohorts and those living in rural areas tend to be more accepting of corruption, which is also consistent with the model.

The rest of this chapter is organized as follows. Section 2 explains Truex's (2011) well thought out questions eliciting survey respondents' opinions of different types of corrupt behaviors. The GRIPS alumni survey included exactly the same set of questions. Section 3 is devoted to descriptive analyses with a view to reinforcing the results of Truex's study. We then attempt to test the predictions of the Sah model of the dynamics of corruption norms by using descriptive analysis in Section 4 and by regression analysis in Section 5. Section 6 contains the concluding remarks.

2. The Design of the Survey

Corruption is multidimensional.   One may accept a type of corruption but not another type.   Moreover, opinions may be divided as to which types are acceptable even if people share the same overall level of corruption acceptance.   To substantiate this point, Truex (2011) conducted a survey in Kathmandu by using the 13 well thought out questions that are shown in Table 1.   Each question describes a problematic behavior, which the respondents rate on a scale of one to five, where five means that the behavior is very unacceptable and one means that the behavior is very acceptable.   The questions are well designed so that a pair of slightly different questions isolates differences in attitudes along a given dimension.   For example, Q4 and Q5 are intended to capture different attitudes toward a politician's nepotism and a businessman's nepotism.   Similarly, Q1 and Q2 differ in the scale of corruption, while Q2 and Q3 are about the distinction between a gift bribe and a cash bribe.   Note that no public actor appears in Q5 and Q8 while the other questions involve one.   With a sample of 853 pedestrians in Kathmandu who were willing to participate in the survey, Truex (2011) finds interesting patterns of respondents' attitudes toward different types of corruption, as will be described in the next section.

The present study asks GRIPS alumni members the same set of questions to see how government officials differ from ordinary citizens and how high-income countries differ from low-income countries in the level and pattern of corruption acceptance.   In the GRIPS Alumni Survey, hundreds of graduates from GRIPS received an e-mail message requesting that they fill out and return the questionnaire through the internet.

This chapter is written based on the 315 questionnaires returned within one month from the end of June 2012. The survey questionnaire includes the 13 original questions and questions eliciting the respondent's opinions of the level of corruption, the functioning of the audit system, the credibility of media, and the citizens' attitudes toward corruption in his or her country. The questionnaire also includes questions about the respondent's socio-economic characteristics and preferences, such as risk attitudes, patience, and procrastination. Although some respondents left some questions unanswered, the data of 300 respondents from 58 countries are usable.

Table 2 lists the 58 countries, their GNI per capita and Transparency International's CPI score, the number of respondents by country, and the country-level averages of the following five variables. PUBSCORE is an average score for the eleven behaviors involving public actors. The country-level average of this variable is our measure of corruption norms. LEVEL indicates the respondent's subjective evaluation of the level of corruption in his or her country, where 1 means that the country is highly corrupt and 5 means that it is very clean. AUDIT and MEDIA are the subjective evaluations of the performance of the audit system and the credibility of the domestic media of the country, respectively. Similarly, ATTITUDE is the anticorruption attitude of the citizens of the country subjectively rated by the respondent, where 1 means that the citizens have very strict attitudes toward public corruption and 5 means that they are accepting of public corruption. Columns (4) to (8) of Table 2 report the country-level averages of these variables except for those countries which have only one respondent. These data are kept secret in order to protect personal information because it may be easy to identify the respondents from such countries.

Our survey data are subject to four biases. The first is the bias in occupation. Most GRIPS students are government officials. The second is the bias toward high education. All respondents are master's degree holders. These biases are needed to provide a comparison group for Truex's sample of ordinary citizens and are also useful for the purpose of our analysis because those who have similar socio-economic characteristics may have quite different perceptions according to the Sah model. To be more precise, however, our respondents' occupations are not completely homogeneous because some respondents have left their government posts for the private sector. About 75 percent of the respondents are government officials, and the vast majority of them work at their central governments. About 10 percent work at national universities, and about 15 percent at private or quasi-governmental organizations. As to education, one third of the respondents have another master's degree, and 10 percent have a doctoral degree.

The third bias is the so called social desirability bias (SDB), which refers to the bias arising from a tendency of respondents to give more socially acceptable or respectable answers than their true answers (Arnold and Feldman, 1981). SDB would understate corruption norms. Although our questionnaire requested respondents to answer the questions as honestly as they could, this might not be enough to prevent SDB. We hope that SDB is less serious in internet surveys than in surveys in which respondents have face-to-face contact with the enumerator. In this regard, however, we should note that some countries have only a small number of graduates from GRIPS. If the respondents from such countries thought that they could be identified easily, their answers may be affected by SDB. Thus, if there is any systematic difference between

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the data from these countries and those from the other countries, the former should be excluded from the analysis or their influences should be controlled for.

As Truex (2011) argues, SDB is essentially an omitted variable bias.   Thus, in our regression analysis below, we use a number of variable as controls, including the variables representing the respondent's preference for risk aversion, patience, and preference for relative evaluation (as opposed to absolute evaluation) of one's performance, and proclivity for procrastination (i.e. delaying doing something that should be done).   Since procrastination carries a disapproving tone, those who admit to this proclivity candidly may be more immune from SDB.   Thus, we hope that this variable effectively mitigates the confounding due to SDB.

Finally, our survey data must suffer from selection bias: those who were unwilling to respond did not respond to the survey.   In this study, we have no countermeasure to this perennial concern other than taking great care when we interpret the results of the analysis.

3.   Comparative Approach to Corruption Norms

Table 3 shows the scores for the 13 problematic behaviors and PUBSCORE for the residents in Kathmandu in column (1) and the GRIPS alumni in columns (2) to (4). In this table, the 58 countries are classified into three categories according to GNI per capita, and these categories are referred to as low-, middle-, and high-income countries. The naming of the three categories is just for convenience and does not follow the definition given by the World Bank or other organizations.   The low-income category has 138 respondents from 24 countries, the middle-income category has 138

respondents from 22 countries, and the high-income category has 33 respondents from 12 countries.   Since Nepal is one of the low-income countries in our classification, Truex's sample occupies a column next to that for the low-income countries to facilitate comparison.   As one would expect, GNI per capital and CPI score are highly correlated. Their correlation coefficient in the sample of the 58 countries is as high as 0.90.   Thus, the above classification of countries is nearly equivalent to the classification into corrupt, less corrupt, and relatively clean countries.

The citizens' in Nepal and the GRIPS graduates in low-income countries share almost the same PUBSCOREs, the average scores for the 11 questions about behaviors that involve a public actor.   Thus, ordinary citizens and highly educated government officials in low-income countries do not differ in the overall level of corruption acceptance.   However, their attitudes toward some behaviors are very different.   First, GRIPS graduates from low-income countries are more accepting of a bureaucrat's nepotism (Q6, bureaucrat job) than a businessman's grand cash giving (Q1, grand cash), while these behaviors are equally unacceptable for the citizens in Nepal.   Second, they are more disapproving to petty bribery-giving associated with tax evasion by private actors, such as Q2 (petty cash), Q3 (petty gift), and Q10 (deserved giver).   Third, they are more accepting of petty favoritism given by a government employee to a friend (Q13, favoritism ticket).   Fourth, however, they are harsh to favoritism if a government employee gives a contract to a friend (Q9, favoritism contract).

As to Q5 (private job) and Q8 (private contract), which are not included in PUBSCORE because they do not involve a public actor, the Kathmandu sample and our sample from low-income countries show a stark contrast.   The GRIPS alumni,

regardless of income levels of their countries, have very low scores for the nepotism of a private actor (Q5), compared with the Nepalese counterpart as well as scores for the other questions, on the one hand.   On the other hand, the GRIPS alumni do not think that bribery between private actors (Q8) is more acceptable than bribery between public and private actors (Q7) when the stake is a contract.

Is there any clear pattern in these differences between the Kathmandu sample and our sample?   Our sample may have a tendency of self-indulgence in the sense that GRIPS alumni appear to be more disapproving of private actors' cheating than public actors' corrupt behaviors.   Is there any other pattern in differences?   From the comparison between Q9 (favoritism contract) and Q13 (favoritism ticket) or between Q5 (private job) and Q8 (private contract), one may think that the GRIPS alumni pay attention to "contract" or the amount of money involved in the corruption.   Note, however, that the GRIPS alumni from low-income countries gave a slightly lower score for Q7 (a company offers a bribe to receive a contract) than for Q3 (a shopkeeper offers a small amount of money to avoid taxes) and Q4 (a shopkeeper offers a small gift to avoid taxes).   There does not seem to be a principle or a clear pattern.

We now look at columns (3) and (4) as well.   The scores in these columns are mostly near five in the high-income countries.   The vast majority of the respondents in the high-income countries rated five for most questions.   The differences in the scores between the middle- and high-income countries are significant at the 1 percent level for Q1, Q4, and Q7, and at the 5 percent level for Q9, and Q13 as well as the aggregate indicator, PUBSCORE.   The differences in the scores between the middle- and low-income countries are significant at the 1 percent level for most questions.   The

exceptions are Q5 (private job), Q8 (private contract), and Q10 (deserved giver) only. While the middle- and high-income countries differ in the overall level of corruption acceptance (i.e., PUBSCORE), they share the same patterns of scores for different questions. Compared with them, the low-income countries are different in attitudes to Q4 (political job) and Q13 (favoritism ticket). But this difference in pattern of attitudes between government officials in the low- and middle-income countries is small, compared with the difference in pattern of attitudes between ordinary citizens and government officials in low-income countries.

Truex's (2011) contribution to the literature on corruption is that he shows that attitudes toward different types of corruption are different. Our addition to his finding is that ordinary citizens and government officials in low-income countries have different attitudes toward different types of corruption and that the difference between them does not have a clear pattern. Although Truex (2011) does not emphasize this, he also finds that the corruption acceptance, as measured in terms of the scores, varies from person to person and that the extent of variation as measured in terms of standard errors vary with the types of corruption. Moreover, an inspection of columns (2), (3), and (4) establishes that standard errors are greater in the low-income countries than in the middle- and high-income countries.

In relation to the variation just mentioned, we should pay attention to what the respondents think when they give a rating of four instead of five to a question. Probably, they would be sure that the corrupt behavior described in a question was unacceptable when they rated the behavior a five. When they rate it a four (or less than five), some of them would mean that they were less acceptable. But some other

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respondents would think that they were less sure, or that whether the behavior was acceptable or unacceptable would depend on the details of the situation. The extent that this way of thinking prevailed, the meaning of the standard error of the score is different. Suppose that everyone gives a four to a behavior (i.e., zero standard error). This means that some approve of it but others disapprove of it, depending on their mood and the details of the corruption. In short, the variability can be larger than the standard errors suggest.

Thus, although the term "cultural norm" may give an impression that it specifies what is acceptable or unacceptable, cultural norms in corrupt societies are less specific and more elusive. A major message of Table 3 is that ordinary citizens and government officials in corrupt society distinguish acceptable and unacceptable behaviors in different manners, and that their differences are elusive. Another major message is that even among government officials in countries with similar income levels, the distinction between acceptable and unacceptable behaviors varies from one person to another and from one situation to another.

These findings offer a new piece of evidence to Shleifer and Vishny's (1993) assertion that corruption increases transaction costs more than taxes. "Corruption is often thought of as like a tax or a fee. Bribes, like taxes, create a wedge between the actual and privately appropriated marginal product of capital" (Svensson, 2005, p. 20). Shleifer and Vishny (1993) point out that corruption is necessarily accompanied by secrecy and uncertainty and argue that secrecy and uncertainty create additional transaction costs. While secrecy is obvious, evidence for uncertainty has been scarce. Table 3 can be regarded as a piece of such evidence. The approach pioneered by

Truex (2011) will help us supply abundant evidence in future.

4. Correlates of Corruption Norms

In the dynamic model developed by Sah (2007), individuals' attitudes toward corruption change with the times, together with their perceptions of the functioning of institutions that affect the gains, costs, and detection probability of corruption. Suppose that today's developed countries have actually had such an evolution of perceptions while developing countries have not. It is expected that government officials will be more disciplined in countries where anti-corruption institutions, such as audit systems and the media, are perceived to work well and citizens are perceived to be strongly disapproving of corruption. Or, to put it another way, our respondents' attitude toward corruption (PUBSCORE) is correlated with the perceived performance of the audit system (AUDIT), the perceived credibility of the domestic media (MEDIA), and the perceived attitude of the ordinary citizens toward corruption (ATTITUDE) at the country level.

As a preliminary analysis, we plotted PUBSCORE and AUDIT both at the country level and at the individual level and found that there are outliers whose PUBSCORE is high but AUDIT is low. These outliers are suspected to be subject to the socially desirability bias (SDB). As mentioned in Section 2, the respondents in such countries that had only a small number of GRIPS alumni might think that they could be more easily identified than correspondents in countries with a larger number of GRIPS alumni, such as Indonesia, the Philippines, and Pakistan. Assuming that the number of respondents is roughly proportional to the number of alumni, we suspected

that the respondents from the countries with a small number of respondents would be more likely to be subject to SDB and to have unduly high values of PUBSCORE.

It turned out that there were 22 cases of countries with only one respondent, and that their mean PUBSCORE was 4.80, while that for the other respondents was as low as 4.48.   The difference was significant at the 1 percent level.   Moreover, there were 61 cases of countries with four respondents or less, and their mean PUBSCORE was 4.67, which is higher than the other respondents' mean of 4.47 at the 1 percent level of significance.   These significant differences deepen the suspicion of SDB inflating the PUBSCORE of some of the respondents from these countries.

Based on these observations and considerations, Table 4 juxtaposes three matrices showing the coefficients of correlation among the six variables (PUBSCORE, LEVEL, AUDIT, MEDIA, ATTITUDE, and CPI score) in the full sample of countries, the sub-sample of countries with three or more respondents, and that of countries with five or more respondents, respectively.   In Panel A, where all the sample countries are included,[2] the correlation between PUBSCORE and the other variables are generally low and that between PUBSCORE and AUDIT is particularly low.   To mitigate SDB, the countries with fewer than three respondents are excluded from the sample.   Such exclusion will also help to reduce the impacts of outliers.   The result is shown in Panel B, where the correlation coefficient for PUBSCORE and AUDIT is much higher than in Panel A, but the coefficients for PUBSCORE and the other variables are not different from Panel A.   To mitigate SDB further, Panel C focuses on the countries with five or

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[2] In the calculation of the correlation coefficients shown in Table 4, Fiji is not included because Fiji does not have a CPI score.   Thus, the number of observations is 57, not 58.

more respondents.   Here, PUBSCORE is correlated more closely with each of the other variables, and the correlation among the other variables is generally high.   Given the nature of subjective ratings, correlation coefficients of 0.4 to 0.7 can be regarded as indicating close correlation.   These results are consistent with the Sah (2007) model.

5. Factors Associated with Attitude toward Corruption

In this section, we try to test the following hypotheses derived from the Sah (2007) model: (i) government officials in a less corrupt country tend to take a stronger position against corruption, (ii) older cohorts of officials tend to be more accepting of corruption than younger cohorts within the same country, (iii) those officials living or working in rural areas tend to be more accepting of corruption than those in urban areas, and (iv) government officials with similar socio-economic characteristics may have quite different attitudes toward corruption.   Here, the unit of analysis and hence the unit of observation is an individual, not a country.

For this purpose, we estimate a regression equation as follows:

$$PUBSCORE_i = X_i\beta + Z_i\gamma + \varepsilon_i, \tag{1}$$

where the dependent variable, $PUBSCORE_i$ is an indicator of discipline for respondent i, X_i is a vector of socio-economic characteristics, Z_i is a vector of preference variables, and ε_i is an error term.   Vector X_i includes the country of residence, age, sex, religion, place of birth, place of residence, occupation, and the logarithm of annual income in US dollars.   Education could be included in X_i, because some of our respondents have a

Ph.D. or two master's degrees but not just one master's degree, and because Truex (2011) finds a strong effect of education on PUBSCORE in the sample of ordinary citizens in Kathmandu.   In our sample, however, education variables do not have any significant coefficients and the inclusion of them alters completely nothing in the qualitative results of the analysis.   The country of residence is represented by a set of country dummy variables, each corresponding to a particular country.   An alternative specification is to replace the set of country dummies by the CPI score of the country of residence.   This specification allows us to see whether PUBSCORE is higher (that is, government officials are more disciplined) in less corrupt countries than more corrupt countries.   The inclusion of Z_i in equation (1) is intended to mitigate SDB and omitted variable biases.   This vector consists of the measures of attitudes toward risk-taking, patience, preference for relative evaluation over absolute evaluation, and the proclivity for procrastination, each of which is the individual's subjective rating on a scale of 1 to 5.

The estimated coefficients of interest are reported in Table 5, which has 12 columns.   The specification with the CPI score is used in the first three columns and columns (7) to (9).   While the first three columns use all the observations with the complete set of data necessary for this specification, columns (7) to (9) use a sub-sample from those countries with at least five respondents in order to mitigate SDB. The sample used is the whole sample in columns (1) and (7) but limited to the developing countries (that is, the low- and middle-income countries) in columns (2) and (8) and to the low-income countries in columns (3) and (9).   In the other columns, the specification with the country dummies is used.   Columns (4) to (6) use the sub-sample

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from the countries with at least two respondents, while columns (10) to (12) use the sub-sample from the countries with at least five respondents.

The coefficients on the CPI score are positive in all cases and significant at the one percent level for the full sample and the sub-sample of developing countries. Thus, government officials in more corrupt countries tend to be less disciplined. The relative magnitude of the coefficients as well as the significance levels indicates that this tendency is particularly strong among middle-income countries. These results, together with the differences in PUBSCORE among the three country categories shown in Table 3, are consistent with Hypothesis (i).

The age of the individual has a negative coefficient, which is generally insignificant when the CPI score is included in the regression but highly significant when the country dummies are used. The latter specification accounts for country fixed effects, that is, the effects of both observable and unobserved factors common to the country of residence, including the CPI score, on PUBSCORE. Thus, for the purpose of estimating the association between the individual's characteristics and PUBSCORE, the latter specification must be superior. Both the estimated coefficients on age and their significance levels are slightly higher when SDB is mitigated, that is, in columns (10) to (12). These results are consistent with Hypothesis (ii). Note, however, that Hypothesis (ii) can be obtained from two different dynamic processes. The Sah model predicts that when a society becomes less corrupt, every person tends to become increasingly disciplined with age, and a younger cohort starts from a higher level than an older cohort. Alternatively, Hypothesis (ii) applies to the case in which every cohort starts from the same level and becomes less and less disciplined with age.

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Thus, while our results are consistent with the hypothesis, they do not lend strong support to the Sah model.

There is no gender gap in PUBSCORE if the effects of other characteristics and traits are controlled for. The coefficient on the female dummy is positive and marginally significant in column (8), indicating that female officials are more disciplined, but the coefficient is no longer significant if the country fixed effects are taken into account. Religion is not associated with PUBSCORE, either. As mentioned earlier, a small number of respondents are employees of private or quasi-government organizations. The variable named Private sector is equal to one if the respondent falls in this category, and it is zero otherwise. The coefficient on this variable is insignificant in all columns.

The information on the place of birth and the place of current residence is presented with two variables. One is Urban to Urban, a dummy variable which is equal to one if the respondent was born in an urban area and is living in an urban area, and zero otherwise. The other is Rural to Urban, a dummy variable which is one if the respondent was born in a rural or suburban area but is living in an urban area, and zero otherwise. About 20 percent of the sample is currently living in a rural area. About half of the rest are from rural or suburban areas (i.e., Rural to Urban = 1), and the other half are from urban areas (i.e., Urban to Urban = 1). The coefficients on these two dummy variables are generally positive and significant if the full sample or the developing country sample is used, especially when the country fixed effects are taken into account (see columns (4), (5), (10), and (11)). These results are consistent with Hypothesis (iii).

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Both the magnitude and significance of the coefficient on the Rural to Urban dummy are greater than those of the Urban to Urban dummy, and the difference in the coefficient is significant in some columns. Thus, the rural to urban migrants are less accepting of corruption than those raised in urban areas, while the rural dwellers are the most accepting of corruption. In the low-income countries the coefficients on these dummy variables are small in magnitude and statistically insignificant, which suggests that urban and rural areas share similar corruption cultures in the low-income countries. It is difficult to explain why these results are obtained.

The coefficient on annual income is positive and significant in every column. Note that the majority of the respondents are government officials, and that the variation in the average income level of the country is absorbed by the country fixed effects or to a lesser extent by the CPI score. The positive coefficient on annual income is likely to indicate that government officials in higher positions tend to be less accepting of corruption. At least a few explanations for this result come to mind immediately. First, those officials who are less frank or alter answers to sound more socially desirable are more likely to get promoted. That is, candidness is a third factor affecting both annual income and PUBSCORE. Second, those officials who are more disciplined are more likely to get promoted. That is, there is a reverse causation. Third, higher positions make officials more disciplined. It is possible that all these causations coexist behind the positive coefficient on annual income.

The coefficients on the preference variables are generally insignificant. Exceptions are the positive and significant estimates of the coefficient on procrastination in columns (2), (5), (7), (8), and (11). A possible interpretation of the

positive coefficient is that persons prone to procrastination have trouble disciplining themselves. Another possible interpretation is that officials who candidly admit that they are prone to procrastination are also candid when they answer the questions about the problematic behaviors and, hence, they have lower PUBSCOREs. That is, SDB is captured by the negative coefficient on the procrastination variable.

The whole result of the regression analysis shown in Table 5 indicates that only a very small part of the variation in PUBSCORE can be explained by the country fixed effects, socio-economic characteristics, and preference or mentality variables. A possible explanation is that the variance of PUBSCORE is inflated by measurement errors. However, it is difficult to imagine that the respondents committed errors frequently when they gave their opinions of the problematic behaviors. To the extent that measurement errors are not serious, one can say that persons with similar characteristics can have quite different attitudes toward corruption, and that the low explanatory power of equation (1) is consistent with Hypothesis (iv).

6. Concluding Remarks

This study has attempted to deepen our understanding of corruption norms by extending the pioneering work of Truex (2011). Our sample of GRIPS alumni, together with Truex's sample, has allowed us to find that ordinary citizens and government officials in low-income countries make different distinctions between acceptable and unacceptable behaviors. We have also found that corrupt behaviors are almost always unacceptable for the majority of GRIPS alumni in high-income countries but less likely to be unacceptable for the majority of their counterparts in low-income

countries. Moreover, both the descriptive and regression analyses show that even among government officials with similar socio-economic backgrounds, the distinction of acceptable and unacceptable behaviors varies substantially from one person to another.

These findings recast our image of corruption norms. Like other social norms, corruption norms are standards of behaviors that are accepted within a society, but they are neither very specific nor precisely known to everyone in the society. Corruption norms leave room for the free discretion of individuals and for various interpretations, especially in low-income countries. Thus, corruption norms in such countries would be a source of uncertainty and unpredictability, and, hence, higher transaction costs.

This study has also presented the new piece of evidence that corruption norms are not fixed standards but keep changing. We have found that our data are consistent with some predictions derived from Sah's (2007) model of the dynamics of corruption norms and perceptions related to corruption, such as perceived levels of corruption prevalence, quality of anti-corruption institutions, such as the audit system and media, and compatriots' attitudes toward corruption. The model suggests that sustained efforts to reduce corruption will be able to have lasting effects and to break traditional corruption norms.

A way to increase the speed of changing corruption norms and reduce transaction costs arising from corruption would be to improve the citizens' access to information about corruption. Improved access to information may be classified into three types. First, as mentioned earlier, Reinikka and Svensson (2011) report an exemplary case in which the disclosure of information improves the ability of citizens to monitor local

government officials, leading to a remarkable reduction in corruption. Second, the results of our study about Sah's model suggest that the increased publicity about the probability of detection and punishment and the legal sanctions levied would also be helpful. The information that the probability is increasing or penalties are becoming more severe will increase the pace of change in corruption norms in a good direction. Of course, when the probability is decreasing and penalties are becoming less severe, the increased publicity will induce changes in corruption norms negatively. Nonetheless, if such a backward step is not known by citizens, no pressure will be put on the government to make greater efforts to reduce corruption.

The third type of improved access to corruption information involves gathering and disseminating information about the attitudes of other citizens, government officials, and politicians toward various types of corruption. According to the results of our study, this will reduce uncertainty and hence transaction costs. The evaluation of the pros and cons of such a policy is an issue for future study. Another avenue for research is to extend the present study so that the sample includes a greater number of graduates from not only GRIPS but other public policy schools in other countries. Such extended studies will offer more insights into corruption norms and anti-corruption measures.

References

Arnold, Hugh J., and Feldman, Daniel C. 1981. "Social Desirability Response Bias in Self-Report Choice Situation," *Academy of Management Journal*, 24(2), 377-385.

Becker, Gary S, and Stigler, George J., 1974. "Law Enforcement, Malfeasance, and Compensation of Enforces," *Journal of Legal Studies* 3, 1-18.

Ferraz, Claudio, and Finan, Frederico, 2011. "Electoral Accountability and Corruption: Evidence from the Audits of Local Governments," *American Economic Review*, 101 (3), 1274-1311.

Fisman, Raymond, and Edward, Miguel, 2007. "Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets," *Journal of Political Economy*, 115 (6), 1020-1048.

Fisman, Raymond, and Jacob, Svensson, 2007. "Are Corruption and Taxation Really Harmful to Growth? Firm Level Evidence," *Journal of Development Economics*, 83 (1), 63-75.

Mauro, Paolo, 1995. "Corruption and Growth," *Quarterly Journal of Economics*, 110 (3), 681-712.

Olken, Benjamin A., 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia," *Journal of Political of Economy* 115 (21), 200-249.

Reinikka, Ritva, and Svensson, Jakob, 2011. "The Power of Information in Public Services: Evidence from Education in Uganda," *Journal of Public Economics* 95 (7-8), 956-966.

Rose-Ackerman, Susan, 1999. *Corruption and Government: Causes, Consequences, and Reform*, New York: Cambridge University Press.

Sah, Raaj, 2007. "Corruption across Countries and Regions: Some Consequences of Local Osmosis," *Journal of Economic Dynamics and Control*, 31(8), 2573-2598.

Shleifer, Andrei, and Vishny, Robert, W, 1993. "Corruption," *Quarterly Journal of Economics*, 108 (3), 599-617.

Svensson, Jakob, 2005. "Eight Questions about Corruption," *Journal of Economic Perspectives*, 19 (3), 19-42.

Truex, Rory, 2011. "Corruption, Attitudes, and Education: Survey Evidence from Nepal," *World Development*, 39 (7), 1133-1142.

Wei, Shang-Jin, 2000. "How Taxing is Corruption on International Investors?" *Review of Economics and Statistics*, 82 (1), 1-11.

Table 1.　13 problematic behaviors from Truex's (2011) survey

Question: How do you rate each behavior on a scale from 1 to 5?	Question name
Q1. A businessman offers a senior official a large amount of money in order to import goods without paying taxes	Grand cash
Q2. A shopkeeper offers a tax collector a small amount of money in order to avoid paying taxes	Petty cash
Q3. A shopkeeper offers a tax collector a small gift in order to avoid paying taxes	Petty gift
Q4. A politician gives a job to a family member even though other applicants are more qualified	Politician job
Q5. A businessman gives a job to a family member even though other applicants are more qualified	Private job
Q6. A government employee gives a job to a family member even though other applicants are more qualified	Bureaucrat job
Q7. A construction contractor gives a government employee a large gift in hopes of receiving a government construction contract	Public contract
Q8. A construction contractor gives a businessman a large gift in hopes of receiving a private construction contract	Private contract
Q9. A government employee awards a government construction contract to a friend's business because he is a friend	Favoritism contact
Q10. Because of a delay, a schoolteacher gives a government employee a small gift in order to make sure that his passport gets processed	Deserved giver
Q11. A schoolteacher gives a government employee a small gift in order to obtain a passport without proper documentation	Illicit giver
Q12. A government employee asks a schoolteacher for a small gift in exchange for giving him a passport without proper documentation	Illicit receiver
Q13. A police officer does not give a taxi-driver a traffic ticket because he is a friend	Favoritism ticket

Table 2.   Summary statistics by country

Country name	(1) GNI per capita in 2010	(2) CPI score	(3) Number of respondents	(4) PUBSCORE	(5) LEVEL	(6) AUDIT	(7) MEDIA	(8) ATTITUDE
Afghanistan	910	1.5	2	4.45	1.50	2.00	4.00	3.50
Australia	36,910	8.8	6	4.97	4.33	4.17	3.83	4.50
Bangladesh	1,810	2.7	15	4.36	2.33	2.67	3.53	3.20
Bhutan	4,970	5.7	5	4.73	2.80	3.40	3.00	2.80
Brunei	NA	5.2	1	-	-	-	-	-
Bulgaria	13,510	3.3	2	4.23	2.50	4.00	3.50	4.00
Cambodia	2,070	2.1	11	3.68	2.27	2.82	3.55	2.64
China	7,600	3.6	9	4.16	2.00	2.89	2.78	3.33
Colombia	9,020	3.4	2	4.59	2.50	4.00	3.50	3.50
Cuba	NA	4.2	1	-	-	-	-	-
Egypt	6,030	2.9	1	-	-	-	-	-
El Salvador	6,460	3.4	2	4.95	2.50	1.50	2.00	2.50
Ethiopia	1,030	2.7	8	3.93	2.00	2.75	2.00	2.25
Fiji	4,460	NA	1	-	-	-	-	-
Georgia	4,950	4.1	1	-	-	-	-	-
Germany	38,100	8.0	1	-	-	-	-	-
Ghana	1,610	3.9	6	4.86	2.50	3.50	4.00	3.00
Hungary	19,550	4.6	3	4.79	3.33	2.33	3.33	2.67

India	3,340	3.1	8	4.91	2.38	3.75	3.88	2.75
Indonesia	4,190	3.0	43	4.65	2.49	3.09	3.23	2.86
Iran	NA	2.7	1	-	-	-	-	-
Japan	34,780	8.0	10	4.68	3.60	3.60	3.40	4.00
Jordan	5,810	4.5	1	-	-	-	-	-
Kazakhstan	10,620	2.7	6	4.50	2.50	3.80	2.33	3.50
Kenya	1,640	2.2	10	4.46	3.00	3.30	3.70	3.40
Korea, Rep	28,830	5.4	2	5.00	4.00	4.00	3.00	4.00
Kyrgyz Rep	2,070	2.1	1	-	-	-	-	-
Lao PDR	2,400	2.2	3	3.42	2.67	3.33	4.00	3.00
Lithuania	18,010	4.8	1	-	-	-	-	-
Madagascar	950	3.0	2	4.68	1.00	1.00	2.00	2.50
Malaysia	14,160	4.3	12	4.86	3.33	3.50	3.25	3.42
Maldives	7,840	2.5	1	-	-	-	-	-
Moldova	3,370	2.9	1	-	-	-	-	-
Mongolia	3,660	2.7	2	4.68	2.50	2.50	3.50	3.50
Mozambique	900	2.7	1	-	-	-	-	-
Myanmar	NA	1.5	3	4.76	2.67	3.67	3.67	3.00
Nepal	1,210	2.2	12	3.86	2.33	3.17	3.17	2.75
Nicaragua	2,660	2.5	1	-	-	-	-	-
Nigeria	2,140	2.4	1	-	-	-	-	-
Pakistan	2,780	2.5	18	4.12	2.00	2.67	3.35	1.94

Country	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Paraguay	5,050	2.2	1	-	-	-	-	-
Peru	9,320	3.4	1	-	-	-	-	-
Philippines	3,960	2.6	24	4.76	2.58	2.88	3.50	2.67
Poland	19,180	5.5	1	-	-	-	-	-
Romania	14,300	3.6	4	4.82	2.25	3.00	2.75	2.25
Sierra Leone	820	2.5	1	-	-	-	-	-
Singapore	56,890	9.2	1	-	-	-	-	-
Slovakia	21,870	4.0	1	-	-	-	-	-
Sri Lanka	5,040	3.3	6	4.47	3.33	3.83	3.40	2.67
Tanzania	1,430	3.0	8	4.55	2.43	3.50	3.38	2.88
Thailand	8,150	3.4	15	4.47	2.53	2.93	3.00	2.07
Turkey	15,460	4.2	2	3.91	2.50	2.50	2.00	2.50
Uganda	1,250	2.4	4	4.68	2.25	3.00	3.00	3.00
Ukraine	6,590	2.3	1	-	-	-	-	-
Uzbekistan	3,150	1.6	5	4.40	1.60	2.60	2.20	3.00
Vietnam	3,060	2.9	11	3.90	1.70	2.27	2.82	2.64
Zambia	1,370	3.2	4	4.89	1.50	3.75	3.50	2.25
Zimbabwe	NA	2.2	2	4.36	2.50	3.00	3.00	2.50

Sources:

GNI per capita in column (1) is taken from the GNI per capita, PPP (current international $) compiled by the World Bank http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD   *CPI score* in column (2) is The 2011 Corruption Perceptions Index (Transparency International) http://cpi.transparency.org/cpi2011/   Data shown in columns (3) to (8) are taken from our survey.

Notes:

(i) GNI per capita is "based on purchasing power parity (PPP). PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. Data are in current international dollars."

(ii) The CPI score of a country indicates "the perceived level of public sector corruption there on a scale of 0 - 10, where 0 means that a country is perceived as highly corrupt and 10 means that a country is perceived as very clean" (http://cpi.transparency.org/cpi2011/in_detail)

(iii) PUBSCORE is the respondent's average score for the eleven questions about CAS behaviors involving public actors, that is, the questions shown in Table 1 other than Q5 and Q8.

(iv) LEVEL is the respondent's perception of the level of corruption in his or her country rated on a scale of 1 to 5, where 5 means "very few are involved" and 1 means "almost everyone is involved."

(v) AUDIT is the respondent's perception of the performance of the audit system in his or her country rated on a scale of 1 to 5, where 5 means "very satisfactory" and 1 means "very poor."

(vi) MEDIA is the respondent's perception of the credibility of the domestic media in his or her country rated on a scale of 1 to 5, where 5 means "very credible" and 1 means "not at all credible."

(vii) ATTITUDE is the respondent's perception of the ordinary citizens' attitudes to corruption in his or her country rated on a scale of 1 to 5, where 5 means "very harsh" and 1 means "very lenient."

Table 3. Corruptive behavior acceptance, citizens in Kathmandu vs. GRIPS graduates

Question name	Kathmandu, (Truex, 2011)	GRIPS survey respondents from		
		Low-income countries	Middle-income countries	High-income countries
	(1)	(2)	(3)	(4)
Q1. Grand cash	4.48	4.49	4.76	4.97
		(0.085)	(0.066)	(0.031)
Q2. Petty cash	4.15	4.39	4.78	4.81
		(0.093)	(0.054)	(0.083)
Q3. Petty gift	4.10	4.30	4.79	4.75
		(0.098)	(0.047)	(0.090)
Q4. Politician job	4.38	4.10	4.49	4.81
		(0.113)	(0.082)	(0.095)
Q5. Private job	3.94	3.36	3.35	3.41
		(0.113)	(0.114)	(0.219)
Q6. Bureaucrat job	4.44	4.26	4.68	4.88
		(0.086)	(0.065)	(0.087)
Q7. Public contract	4.28	4.26	4.65	4.91
		(0.103)	(0.075)	(0.052)
Q8. Private contract	3.99	4.21	4.19	4.44
		(0.092)	(0.098)	(0.179)
Q9. Favoritism contract	3.83	4.23	4.59	4.88
		(0.093)	(0.073)	(0.087)
Q10. Deserved giver	3.86	4.11	4.30	4.31
		(0.088)	(0.082)	(0.165)
Q11. Illicit giver	4.45	4.54	4.84	4.81
		(0.075)	(0.046)	(0.095)
Q12. Illicit receiver	4.48	4.68	4.88	4.91
		(0.060)	(0.048)	(0.069)
Q13. Favoritism ticket	4.35	4.00	4.37	4.66
		(0.101)	(0.082)	(0.106)
PUBSCORE (average for the 11 public behaviors)	4.25	4.30	4.65	4.78
		(0.070)	(0.049)	(0.065)
Number of observations	853	138	138	33

Note: Numbers in parentheses are standard errors of the means (but not standard deviations of the scores).

Table 4.   Correlation of country averages

Panel A: All countries (N = 57)

	PUBSCORE	LEVEL	AUDIT	MEDIA	ATTITUDE
PUBSCORE	1				
LEVEL	0.390	1			
AUDIT	0.031	0.563	1		
MEDIA	0.224	0.390	0.425	1	
ATTITUDE	0.195	0.523	0.426	0.267	1
CPI score	0.381	0.680	0.391	0.327	0.302

Panel B: Countries with three or more respondents (N = 27)

	PUBSCORE	LEVEL	AUDIT	MEDIA	ATTITUDE
PUBSCORE	1				
LEVEL	0.375	1			
AUDIT	0.406	0.497	1		
MEDIA	0.181	0.427	0.407	1	
ATTITUDE	0.238	0.641	0.480	0.220	1
CPI score	0.432	0.709	0.390	0.179	0.571

Panel C: Countries with five or more respondents (N = 21)

	PUBSCORE	LEVEL	AUDIT	MEDIA	ATTITUDE
PUBSCORE	1				
LEVEL	0.590	1			
AUDIT	0.656	0.788	1		
MEDIA	0.432	0.499	0.408	1	
ATTITUDE	0.466	0.666	0.578	0.231	1
CPI score	0.502	0.784	0.580	0.290	0.667

Table 5.　Regressions of PUBSCORE

	(1) All countries	(2) Developing countries	(3) Low-income countries	(4) Countries with two or more obs.	(5) Developing countries with 2+ obs	(6) Low-income countries
CPI score	0.100***	0.233***	0.184	-	-	-
	(3.869)	(3.497)	(1.228)			
Country dummies	-	-	-	Yes	Yes	Yes
Age	-0.010	-0.016*	-0.015	-0.023**	-0.026***	-0.023**
	(-1.228)	(-1.840)	(-1.372)	(-2.629)	(-3.229)	(-2.187)
Female	0.131	0.140	-0.097	0.012	0.046	-0.242
	(1.342)	(1.275)	(-0.360)	(0.112)	(0.393)	(-0.850)
Christian	0.170	0.195	0.096	-0.063	0.002	-0.484
	(1.482)	(1.511)	(0.517)	(-0.534)	(0.015)	(-1.206)
Muslim	0.235	0.279*	0.078	-0.026	0.081	0.021
	(1.496)	(1.820)	(0.355)	(-0.177)	(0.526)	(0.060)
Urban to urban	0.137	0.106	-0.093	0.270*	0.279*	0.009
	(1.302)	(0.854)	(-0.605)	(1.846)	(1.712)	(0.035)
Rural to urban	0.284**	0.290*	0.146	0.320**	0.377**	0.171
	(2.453)	(2.015)	(0.734)	(2.086)	(2.145)	(0.636)
Private sector	-0.019	-0.024	0.169	0.006	-0.005	0.204
	(-0.152)	(-0.160)	(0.809)	(0.032)	(-0.024)	(0.829)
ln(annual income)	0.099***	0.112***	0.145***	0.078**	0.080**	0.111*
	(3.159)	(3.413)	(2.857)	(2.080)	(2.155)	(2.009)
Risk taker	0.071	0.072	0.107	0.038	0.051	0.097
	(1.451)	(1.446)	(1.198)	(0.630)	(0.864)	(0.970)
Patience	-0.037	-0.024	-0.015	0.011	0.030	0.024
	(-0.795)	(-0.451)	(-0.184)	(0.181)	(0.470)	(0.245)
Preference for relative evaluation	0.032	-0.000	0.058	0.009	0.005	0.037
	(0.459)	(-0.000)	(0.489)	(0.094)	(0.053)	(0.239)
Procrastination	-0.074	-0.106*	-0.090	-0.076	-0.114*	-0.085
	(-1.499)	(-1.913)	(-1.207)	(-1.412)	(-1.974)	(-0.985)
Constant	3.282***	3.047***	2.731**	4.347***	4.242***	3.673***
	(4.914)	(4.609)	(2.712)	(6.889)	(6.795)	(3.346)
Observations	275	245	123	256	232	117
R-squared	0.158	0.177	0.165	0.328	0.327	0.281

Numbers in parentheses are robust t-statistics, clustered at the country level to account for correlation among respondents in the same country. *, **, and *** indicate the 10, 5, and 1 percent levels of significance, respectively. The sample consists of the countries with two or more observations in columns (4) to (5), those with three or more observations in columns (6) to (12).

Table 5 (continued).

	(7) Countries with 5 or more obs.	(8) Developing countries	(9) Low-income countries	(10) Countries with 5 or more obs.	(11) Developing countries	(12) Low-income countries
CPI score	0.104***	0.257***	0.190	-	-	-
	(3.358)	(3.514)	(1.135)			
Country dummies	-	-	-	Yes	Yes	Yes
Age	-0.012	-0.017*	-0.020	-0.025***	-0.028***	-0.027**
	(-1.318)	(-1.875)	(-1.709)	(-2.883)	(-3.438)	(-2.633)
Female	0.170	0.188	-0.041	0.046	0.073	-0.217
	(1.574)	(1.608)	(-0.146)	(0.435)	(0.640)	(-0.757)
Christian	0.167	0.202	0.051	-0.059	-0.023	-0.505
	(1.263)	(1.392)	(0.262)	(-0.462)	(-0.155)	(-1.230)
Muslim	0.267	0.271	0.066	0.047	0.082	0.036
	(1.576)	(1.638)	(0.289)	(0.338)	(0.512)	(0.100)
Urban to urban	0.139	0.120	-0.110	0.275*	0.298*	0.015
	(1.161)	(0.889)	(-0.626)	(1.863)	(1.767)	(0.053)
Rural to urban	0.295**	0.299*	0.149	0.322*	0.369*	0.146
	(2.273)	(1.867)	(0.656)	(2.046)	(2.011)	(0.503)
Private sector	-0.020	-0.041	0.209	0.052	0.034	0.273
	(-0.142)	(-0.243)	(0.972)	(0.282)	(0.163)	(1.145)
ln(annual income)	0.112***	0.120***	0.172***	0.084**	0.085**	0.126**
	(3.445)	(3.617)	(4.147)	(2.302)	(2.321)	(2.357)
Risk taker	0.060	0.072	0.088	0.033	0.048	0.091
	(1.108)	(1.317)	(0.958)	(0.549)	(0.792)	(0.937)
Patience	-0.028	0.002	0.014	0.020	0.031	0.038
	(-0.507)	(0.029)	(0.158)	(0.328)	(0.470)	(0.374)
Preference for relative evaluation	0.035	0.006	0.088	0.016	0.007	0.037
	(0.436)	(0.069)	(0.726)	(0.154)	(0.063)	(0.237)
Procrastination	-0.090*	-0.110*	-0.104	-0.086	-0.116*	-0.095
	(-1.711)	(-1.863)	(-1.353)	(-1.620)	(-2.003)	(-1.148)
Constant	3.225***	2.822***	2.600**	4.464***	4.655***	4.580***
	(4.303)	(3.749)	(2.485)	(7.203)	(7.137)	(4.398)
Observations	239	219	112	239	219	112
R-squared	0.168	0.186	0.177	0.330	0.329	0.287