Honesty, rule violation and cognitive ability: A reply to Gächter and Schulz

Heiner Rindermann⁎, David Becker, James Thompson

⁎ Corresponding author.

A B S T R A C T

Gächter and Schulz (2016) assumed an effect of institutional rule violation on individual honesty within societies. In this reply we challenge this approach by including a nation’s cognitive ability as a further factor for cross-national variations in the prevalence of rule violations and intrinsic honesty. Theoretical considerations, correlational and path analyses show that a nation’s cognitive ability level (on average β = .62) better explains and predicts honesty and rule violation. While institutional and cultural factors are not unimportant, cognitive factors are more relevant.

1. Introduction

In a cross-national analysis, Gächter and Schulz (2016) have shown an association between a society’s tendency to break rules and the frequency with which individuals cheat in a game. They concluded that within modern societies, uncorrupted institutions (low prevalence of rule violation) increase individuals’ honesty by modeling norm-oriented honest behavior. According to the authors, behind institutional prevalence of rule violation may further stand individualistic cultural values supporting moral orientation in institutions and of citizens. Gächter and Schulz (2016, p. 498) summarized their study thus:

“Taken together, our results suggest that institutions and cultural values influence prevalence of rule violation (PRV), which, through various theoretically predicted and experimentally tested pathways, impact on people’s intrinsic honesty and rule following.”

Institutional-societal prevalence of rule violation was indicated by corruption, tax evasion and fraudulent politics, individual “intrinsic” honesty was measured by an experiment in which persons could receive a larger reward by cheating which was unobservable by other persons. The sample of 23 nations was chosen from different cultural groups, from Western, Latin American, Muslim, African and Asian countries, making the country sample representative for the world.

Nevertheless, theoretical considerations make Gächter and Schulz’s proposed causal path of institutional modeling leading to individuals’ behavior less convincing. At the individual level, a theoretically conclusive and empirically approved psychological theory explains moral related behavior by moral judgement which itself depends on achieved cognitive development. We call it the cognitive-moral enlightenment theory. Within psychology, the most prominent representative of this theory is the Swiss psychologist Jean Piaget. Moral development is seen as being dependent on prior cognitive development. According to Piaget (1948/1932, 2001/1947) and his development theory, the highest cognitive development stage comprises abstract formal-operational thinking that includes role-taking, hypothetical reasoning and metacognition all being necessary for moral judgement. The individual process of development represents an advance from cognitive egocentrism to decentered thinking, from ethical egoism to the consideration of the interests and rights of others. Cognitive and moral development are structurally similar. In both is acquired a well-founded, reason-based structure and in both the development goes from egocentrism to a consideration of the perspective of others. This theory has its roots in the enlightenment and classical philosophy. That evil is a result of cognitive narrow-mindedness is an idea that can be found in the dialogues of Socrates (Protagoras 358c, Plato, 1997/-350) and in Aristotle’s Nicomachean ethics (Aristotle, 2000/-322, III, 1, p. 39).

Cognitive ability (as measured by psychometric IQ tests or Piagetian scenarios) is the result of previous cognitive development. Correspondingly, the Piagetian development level correlates with psychometric test scores at about r = .50 to .70 (Hattie, 2009, p. 43; Jensen, 1980, p. 674). Cognitive ability and moral judgement correlate at r = .62; if age is partialled out the correlation is still r = .50 (Krebs & Gillmore, 1982). Judgement levels and real behavior are also related: McNamee (1977) compared stages of moral development with helping behavior. Individuals who were deemed to be at a higher stage of moral development were more likely to help a person in need, by giving advice (r = .63) or via personal assistance (r = .60). Similarly, Kohlberg (1984, p. 70, p. 546) found that in Stanley Milgram’s (1963) (fictitious)
torture experiment, fewer individuals at higher stages of moral development followed the order to torture a third party.

Further support can be found in negative correlations between cognitive ability and crime. Correlations of studies using different tests and various real-world crimes are around $r = -0.23$ (e.g., Cutha, Heckman, Lochner, & Masterov, 2006, p. 751, own reanalysis). The same pattern can be detected within the United States at the level of counties ($r = -0.53$ for a composite crime; Beaver & Wright, 2011); at the level of countries for corruption ($r = -0.63$; Potrafke, 2012) and for homicide ($r = -0.23$; Rindermann, 2008).

The cognitive-moral enlightenment theory has been applied by sociologists and philosophers at the level of whole societies and cultures and for historical developments: According to Jürgen Habermas (1984/1981), societies that are able to operate at the highest cognitive level, the formal-operational stage (e.g., “decentration of an egocentric understanding of the world”; Habermas, 1984/1981, p. 69), are well-placed to enhance and broaden rationality including institutions, ethics and culture. Similarly, Georg W. Oesterdiekhoff (2014) has applied the Piagetian approach by bringing together psychogenesis and socio-genesis to explain historical phenomena. For example, the rising cognitive ability level (i.e., the F Lynn effect; Flynn, 2012; Lynn, 2013; Rindermann & Thompson, 2013) led to changing concepts of legal rights. In a recently published study cognitive ability contributed to explain international differences in human rights (Rindermann & Carl, 2018).

Finally, the cognitive ability levels of intellectuals (i.e., members of the intellectual class: philosophers, scientists, politicians, judges, business elites etc.) may be crucial because it is precisely these individuals who build-up institutions and shape the thinking and worldview. For example, government effectiveness crucially depends on the ability level of intellectual classes ($\beta_{\text{class}}-\text{Governing} = -0.62$; Rindermann, Kodila-Tedika, & Christainsen, 2015). Generally, the effects on institutions, society and economy increase with higher ability (Coyle, Rindermann, Hancock, & Freeman, 2018).

Thus we assume, that the decisive cause of country differences in institutional rule observance (fewer of Gächter and Schulz’s “rule violations”) and individual honesty (Gächter and Schulz’s “intrinsinc honesty”), is cognitive ability, working at the individual as well as at the institutional and societal level. To examine this assumption, we compare (1) the effect of cognitive ability with the one of institutional rule obedience on individual honesty and (2) the effect of cognitive ability with the one of individual honesty on institutional rule obedience. For cognitive ability, we take a sum value of all given measures and for control only results from student assessment studies. Further we estimate the effect of intellectual classes and similarly to Gächter and Schulz we also assume effects of culture (“cultural values”).

In a recent analysis of effects on human rights culture turned out to be the most relevant factor (Rindermann & Carl, 2018). For this purpose, we take religions, weighted for their impact on education, learning, rationality, thinking, meritoric orientations and the development of a burgher world and modernization, or more simply the percentage of Protestants in a society – the group being in the past most important for modernization processes, furthering individualism, intrinsically directed ethics and ethical rigor (Rindermann, 2018; Weber, 2001/1905).

2. Method

2.1. Data

National cognitive ability levels (means of countries) were estimated by combining data from student assessment studies between 1995 and 2011, PISA (Programme for International Student Assessment), TIMSS (Trends in International Mathematics and Science Study), PIRLS (Progress in International Reading Literacy Study), and in case of data from newer student assessment studies were not given complemented by older and regional studies as the IEA-Reading Literacy Study (International Association for the Evaluation of Educational Achievement), IAEP-II (International Assessment of Educational Progress), LLECE (Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación), SACMEQ (Southern and Eastern Africa Consortium for Monitoring Educational Quality), PASEC (Programme d’Analyse des Systèmes Éducatifs), and the International Mathematical Olympiad (IMO). These scores were combined with national results from psychometric intelligence tests from Lynn and Vanhanen (2012a) and they were corrected for age, school attendance rates, national representativeness and also corrected or excluded if results were obviously wrong. For a detailed description, please see Rindermann et al. (2015). Similarly, but only using student assessment studies (their results at the 95th rank), the cognitive ability levels of the top 5% of a country, the intellectual classes, were estimated. Data on average cognitive abilities were used for all 23 countries of Gächter and Schulz’s (2016) country sample, intellectual classes’ level was given for 20 countries. Finally, we added as further control a new student assessment studies’ average based on studies until 2015 (PISA 2015). Date are given for 23 countries.

Rule violation (based on corruption, tax evasion and fraudulent politics) was taken from Gächter and Schulz (2016), $N = 23$ countries.

Intrinsic honesty (based on an anonymous die-rolling experiment) was taken from Gächter and Schulz (2016), $N = 23$ countries.

Religion was used as further control in two variants: Percentages of adherents of religions weighted for religion’s impact on education, learning, rationality, thinking, meritoric orientations and the development of a burgher world and modernization (estimated, following e.g., Harrison, 2013, pp. 16ff.; Rindermann, 2018). The second variable was percentage of Protestants in a country (from German Department for Foreign Affairs, www.auswaertiges-amt.de/www/de/laenderinfos in 2004; country encyclopaedia from Jahrbuch, 2004; and CIA World Factbook, 2004).

2.2. Statistical analyses

We computed bivariate correlations and partial correlations (controlling a correlation for the impact of another variable) and conducted regressions (with two predictors) and path analyses assuming direct and indirect effects via a second intervening variable in the model. Significance tests have limitations in country-level analyses (Pollet, 2013) and for the assessment of numerical results in general (e.g., Gigerenzer, 2004). More important is to check the robustness of effects across different measures and analyses, e.g. using different indicators of cognitive ability and accompanied by different country samples. A mediation analysis was added to check mediation effects.

3. Results

Results of the honesty experiment are similarly well correlated with national rule violations ($r = -0.55, -0.554$) and cognitive ability ($r = 0.55, 0.550$; all at the level of 23 countries). The relationships between institutions and honesty and between cognitive ability and honesty are comparable. If one controls the correlation between honesty and rule violation for cognitive ability, then the correlation of $r = -0.55$ is reduced to a partial $r = -0.29$. Whereas national rule violation is correlated with honesty at $r = -0.55$ ($-0.554$) rule violation is more highly correlated with national cognitive ability at $r = -0.68$ ($-0.680$).

In a regression equation (Fig. 1) honesty measured by an individual honesty experiment was predicted by countries’ cognitive ability level and their institutional rule violations. Although the direct impact of rule violation on honesty is slightly larger ($\beta_{CA-Ho} = 0.32$ vs. $\beta_{RV-Ho} = -0.34$) the total effect of cognitive ability on honesty including the indirect effect via rule violation ($\beta_{CA-RV} = -0.68$) is stronger: $\beta_{CAst-Ho} = 0.32 + (-0.68 \times -0.34) = 0.55 \ (vs. \beta_{RV-Ho} = -0.34)$. 

H. Rindermann et al. 
Intelligence 68 (2018) 66–69
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات