Moral Judgments in Russian Culture:
Universality and Cultural Specificity

K.R. Arutyunova*, Yu.I. Alexandrov, V.V. Znakov and M.D. Hauser

* Institute of Psychology, Russian Academy of Sciences,
Yaroslavskaya str. 13, 129366 Moscow, Russia
b Department of Psychology, Harvard University, Cambridge, MA 02138, USA
* Corresponding author, e-mail: arutyunova@inbox.ru

Abstract
Individuals often deliver rapid, automatic judgments of right and wrong, suggesting that there is an implicit system of knowledge that may guide our moral judgments. Some authors have argued that the principles guiding this system are universal, part of our human endowment. Tests of this hypothesis require rich cross-cultural evidence which is presently limited. Here we extend the current cross-cultural evidence by testing Russian subjects. We focus on three psychological distinctions concerning the nature of permissible harm that, thus far, show a fair degree of uniformity among several English-speaking countries (USA, UK, Canada): (1) action-based harms are worse than omission-based harms; (2) means-based harms are worse than side-effects; and (3) contact-based harms are worse than non-contact-based harms. Overall, Russian subjects’ judgments were mediated by these three distinctions. There were, however, some notable cross-cultural differences: in contrast with the English-speaking countries, Russian subjects tended to avoid extreme judgments favoring the middle of the scale anchored at permissible; however, when they used the extremes, they were more likely to judge cases as forbidden, and rarely as obligatory. We discuss these results in light of the role of biological constraints on cross-cultural variation.

Keywords
Moral psychology, cross-cultural variation, universal moral grammar, moral judgments, principles of harm

Introduction
Moral norms and attitudes represent an ancient component of human culture (de Waal, 1996, 2008; Waller, 1997; Wilson, 1998; Alexandrov and Alexandrova, 2007), providing both constraints on human action and safety. To some extent, mature individuals in a given society are typically aware of the moral norms that are operative, and recognize the consequences of transgressions. There
are, nonetheless, massive differences between cultures, and within cultures over certain periods of time, concerning the set of morally permissible or forbidden actions (Nisbett and Cohen, 1996; Henrich et al., 2005). These differences are coupled to other aspects of our moral psychology that appear universal, including especially some judgments of moral permissibility (Mikhail et al., 1998; Dwyer, 1999, 2006; Hauser, 2006; Haidt, 2007; Mikhail, 2007; Rai and Fiske, 2011). For example, helping an injured person is universally permissible, even if some cultures believe that it is best to allow the aged or physically disabled to die. Similarly, it is universally agreed that it is forbidden to torture infants for fun, or to gratuitously and randomly kill anyone that is not liked. This does not mean that societies cannot invent reasons to kill people they do not like, but this is no longer random.

One way to understand what allows for and constrains variation in our moral systems is to start by making a distinction between how we judge hypothetical cases and how we act in real cases. Put simply, we might all like to think that we would jump onto a train track with an oncoming train to save the life of a child who has fallen onto the tracks, but faced with this situation, most would surely admit to being more cowardly and selfish. It is presumably uncontroversial that throughout history, cultures differ in their moral behaviour. The hypothesis we pursue here, building on recent theoretical and empirical findings, is that there is far less variation in how cultures judge hypothetical cases. Testing this hypothesis requires a rich cross-cultural data set.

Several studies reveal that people deliver rapid permissibility judgments for unfamiliar hypothetical scenarios, suggesting that there is an implicit system of knowledge that may guide our intuitive judgments of right and wrong. Several explanations have been offered to account for both the relative automaticity of these judgments, as well as the observation that subjects are often incapable of justifying their judgments. For example, Haidt (2001, 2007) has pointed to the importance of intuitions mediated by unconscious emotions. Greene (2001, 2004) has pointed to a tension between a hot-emotional deontological system focused on rules and a colder utilitarian system focused on consequences. Others, including especially Dwyer, Mikhail and Hauser, have pointed to an analogy with the Chomskyan approach to language, suggesting that we are endowed with a moral faculty that operates over a set of universal principles – a “universal moral grammar” (Rawls, 1971; Dwyer, 1999; Harman, 1999; Mikhail, 2000, 2011; Hauser, 2006). Our goal here is not to try and adjudicate between these hypotheses which, we note, are not mutually exclusive. Rather, our point is to highlight the fact that each of these perspectives identifies mechanisms that could, in theory, constrain the range of potential variation in moral judgments, generating a signature of both universality and cultural
differences. Thus, for example, given the universality of human emotion, and the commonality of many of our early experiences, it is possible that we have all acquired similar associations between particular experiences and particular outcomes. By binding our emotions to these experiences, we derive a set of common responses to some moral transgressions. Similarly, given the kinds of universals that scholars such as Brown (1991) have pointed to, and that Pinker (1997) has synthesized and extended (e.g., reciprocity, friendships, revenge), it would also not be surprising if humans had largely universal comprehension of particular rules of social interaction (see also Rai and Fiske, 2011).

Independently of how universality might be generated, it is important to explore the degree to which judgments of hypothetical cases reveal the signature of universality. That is, when subjects living in different cultures respond to the same set of moral scenarios, to what extent are their judgments the same? In the same way that different languages have words that fall into particular syntactic categories, and every language has some shared syntactic operations for organizing words into meaningful expressions, do different moral systems have common or shared principles for organizing actions into morally permissible or forbidden events? Though this question invokes the linguistic analogy, testing for universality does not commit us to this view. That is, our interest here is in the extent to which different cultures generate similar moral judgments independently of the factors that contribute to universality.

In this paper, we focus on the nature of moral judgments and the extent to which individuals living in different societies hold to different perceptions of moral infractions, as well as to the factors guiding difficult moral decisions. As noted above, there are massive cross-cultural differences in people’s beliefs and actions regarding helping and harming others (Nisbett and Cohen, 1996; Henrich et al., 2005). On the other hand, similarities observed across cultures suggest the possibility of universal principles (Nisbett and Cohen, 1996; Gert, 2004; Henrich et al., 2005, 2006; Hauser, 2006; Haidt, 2007). For example, in two studies involving thousands of subjects tested on the internet, Hauser and colleagues (Hauser et al., 2007; Banerjee et al., 2010) found that religion, education, gender, political affiliation and age (among adults) played virtually no role in the pattern of judgments, across a wide range of moral scenarios. These studies suggest that certain aspects of our moral psychology may be relatively immune to demographic and cultural factors. In a more targeted study, Cushman et al. (2006) explored the role of three principled distinctions in the pattern of judgments by English-speaking individuals from a set of Western countries (USA, Canada and the United Kingdom). Results revealed a consistent pattern of judgment, with the majority of subjects judging means-based harms as worse than harms resulting as a side-effect, harmful actions as worse than
omissions, and contact-based harms as worse than non-contact harms. The action-omission distinction was also revealed, using the same methods and materials, for a Dutch population (Hauser et al., 2009). Interestingly, in a study of a rural, largely uneducated Mayan population, Abarbanell and Hauser (2010) found that subjects judged means-based harms as worse than side-effects, but judged action-based harms as comparable to omissions. This difference in judgments for the action-omission cases could be due to something particular about Mayan culture, or alternatively, may reflect differences that characterize all small-scale societies, or even differences in methodology (e.g., internet vs pen-paper read scenarios).

The current study was designed to extend the cross-cultural evidence to date, and in particular to do so in such a way as to allow for direct comparison across studies. To this end, we focused on the aforementioned distinctions used by Cushman et al. (2006), translating the same dilemmas into Russian. Russian culture is of particular interest because it is both large scale and developed like the English-speaking societies that have been examined, and yet has distinctive features that are typical of Eastern collectivism as opposed to Western individualism. For example, Tower et al. (1997) showed that Russians are more collectivist in their social orientation than the British and discuss the specific ways in which Russian collectivism differs from British individualism; in the study by Matsunoto et al. (1998) Russian scores on three of the four social relationships (e.g., family, close friends, colleagues) were the most collectivistic, on the same level with Koreans; other authors also point to Russian interdependent social orientation (Varnum et al., 2009; Grossmann and Varnum, 2011). In addition, Russian culture developed under the strong influence of the Orthodox Church, while the North of Europe and America were historically under influence of Protestantism (Weber, 1930; Merton, 1957). Among a number of other properties of Russian culture, it is also worth noting that aspects of its moral psychology enter into a wide range of social representations that may vary cross-culturally. Thus, for example, in contrast to Western countries where intelligence is considered from a purely cognitive perspective, social representations of an intelligent person in Russia include an ethical component (for a review see Alexandrov and Alexandrova, 2007, 2009). Considering existing differences in social orientations and cognitive characteristics observed between individuals living in Eastern and Western types of culture (Nisbett et al., 2001; Varnum et al., 2009; Grossmann and Varnum, 2011) and peculiarities due to religion and history, the comparison of moral intuitions made by English speaking Westerners studied by Cushman and colleagues (2006) and people living in Russian culture can bring deeper insights into understanding of the mechanisms underlying moral judgments of unfamiliar hypothetical cases and their cultural specificity.
In summary, we used the methodological approach of Cushman et al. (2006), presenting Russian subjects with the same set of moral dilemmas targeting the three principled distinctions involving harm. Our goal was to examine whether Russian subjects judge action-based harms as worse than omission-based harms (the action distinction), means-based harms as worse than side-effects (the means distinction), and contact-based harms as worse than non-contact-based harms (the contact distinction). Moreover, we aimed to test whether moral judgments of Russian subjects differ from their Western counterparts, and if so, in what ways.

**Method**

**Subjects**

We analysed responses of 303 subjects who completed the entire set of moral scenarios and did not fail the control items (see below). Subjects’ mean age was 27 years (SD=10) with a gender bias skewed toward females (74%). Subjects were fluent Russian speakers and 95% listed Russian as their primary language. Most (91%) subjects indicated they were born in Russia.

To provide a directly comparable data set with studies of English, Western subjects, we used the scenarios and methods of Cushman et al. (2006). The English speaking subjects (n=332) were, on average, 37 years old, with 42% females, 88% listing English as their primary language and most were born in the United States, Canada, or the United Kingdom.

**Design and Procedure**

Subjects voluntary logged onto the Russian version of the Moral Sense Test Web site (http://www.serve.com/~harvardpcnl/MST/Russian/). We first translated the English version of the dilemmas used by Cushman and colleagues (2006) into Russian. Next, a second Russian-English bilingual speaker back-translated these into English. Lastly, M.H. checked the original and back-translated English versions to make sure that there were no substantive differences (see Appendix A). To avoid cultural and linguistic incompatibility, we used Russian names throughout, while maintaining the same gender associations.

After completing a demographic questionnaire, subjects received 32 moral scenarios and two controls, as in Cushman et al. (2006); scenario presentation was counter-balanced between subjects. For each scenario, subjects rated the protagonist’s action or omission on a 7-point scale with 1 labelled as “Forbidden”, 4 as “Permissible” and 7 as “Obligatory”. We eliminated from the analyses
all subjects who failed either of the two control scenarios (by judging permissible the killing or allowed death of five people despite a costless alternative).

The test scenarios comprised 18 controlled pairs, six pairs for each of the three principles or distinctions below:

- **Action distinction**: Harm caused by action is morally worse than equivalent harm caused by omission.
- **Means distinction**: Harm intended as the means to a goal is morally worse than equivalent harm foreseen as the side effect of a goal.
- **Contact distinction**: Using physical contact to cause harm is morally worse than causing equivalent harm without using physical contact.

Each pair of scenarios was carefully controlled, using the same words, and only changing whether the consequences were caused by action as opposed to omission, means versus side-effect and contact versus non-contact.

To parallel the results from Cushman et al. (2006), we analyzed subjects’ responses with paired-sample $t$-tests, within subjects, for each of the 18 pairs of scenarios. To analyse extreme judgments within samples, we used the Wilcoxon matched pairs test. To compare Russian with English-speaking judgments, we used the Chi-square test and the Mann–Whitney $U$-test. The effect size for $t$-tests was calculated as Cohen’s $d$ and as the degree of association ($r$) for Wilcoxon and Mann–Whitney tests.

**Results**

Overall, Russian subjects consistently judged actions as worse than omissions, means-based harms as worse than side-effects, and contact-based harms as worse than non-contact. Statistically significant differences were observed in 16 of 18 pairs of scenarios (Table 1). Of the two paired scenarios showing no statistically significant differences, both contrasted actions and omissions.

We also observed significant correlations (Spearman rank R) between the mean judgments of Russian and English-speaking samples for the means ($0.94; p<0.005$) and contact ($0.94; p<0.005$) distinctions, but not for the action distinction ($0.55; p=0.25$).

To go beyond the average responses, and explore the extent to which there might be cross-cultural differences in the use of the extreme ends of the scale, we calculated the percentage of extreme judgments for each of thirty test scenarios. Extreme judgments were those on the borders of the scale, that is, 1 “Forbidden” and 7 “Obligatory”. This analysis showed that the overall percentage of extreme judgments was larger in the English-speaking sample compared
Table 1

Differences in Permissibility for Pairs of Moral Scenarios in the Russian Sample

<table>
<thead>
<tr>
<th>Scenario pair</th>
<th>Mean difference</th>
<th>SD</th>
<th>t (302)</th>
<th>Effect size (d)</th>
<th>p (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action distinction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boxcar</td>
<td>1.00</td>
<td>1.77</td>
<td>9.89</td>
<td>0.56</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Pond</td>
<td>1.51</td>
<td>1.83</td>
<td>14.36</td>
<td>0.83</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Ship</td>
<td>0.11</td>
<td>2.80</td>
<td>0.72</td>
<td>0.04</td>
<td>0.473</td>
</tr>
<tr>
<td>Car</td>
<td>0.74</td>
<td>1.70</td>
<td>7.54</td>
<td>0.44</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Boat</td>
<td>0.35</td>
<td>2.03</td>
<td>2.80</td>
<td>0.17</td>
<td>&lt;0.004</td>
</tr>
<tr>
<td>Switch</td>
<td>0.11</td>
<td>1.86</td>
<td>1.02</td>
<td>0.06</td>
<td>0.307</td>
</tr>
<tr>
<td><strong>Means distinction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speedboat</td>
<td>0.50</td>
<td>1.43</td>
<td>6.01</td>
<td>0.35</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Burning</td>
<td>1.29</td>
<td>1.82</td>
<td>12.38</td>
<td>0.71</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Boxcar</td>
<td>0.85</td>
<td>1.68</td>
<td>8.86</td>
<td>0.51</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Switch</td>
<td>0.28</td>
<td>1.51</td>
<td>3.25</td>
<td>0.19</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>Chemical</td>
<td>0.25</td>
<td>1.58</td>
<td>2.72</td>
<td>0.16</td>
<td>&lt;0.007</td>
</tr>
<tr>
<td>Shark</td>
<td>0.47</td>
<td>1.49</td>
<td>5.49</td>
<td>0.32</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Contact distinction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speedboat</td>
<td>0.87</td>
<td>1.52</td>
<td>9.93</td>
<td>0.57</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Intended burning</td>
<td>0.46</td>
<td>1.63</td>
<td>4.87</td>
<td>0.28</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Boxcar</td>
<td>0.74</td>
<td>1.40</td>
<td>9.16</td>
<td>0.53</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Foreseen burning</td>
<td>0.62</td>
<td>1.66</td>
<td>6.48</td>
<td>0.37</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Aquarium</td>
<td>0.20</td>
<td>1.37</td>
<td>2.55</td>
<td>0.15</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Rubble</td>
<td>0.17</td>
<td>1.36</td>
<td>2.20</td>
<td>0.13</td>
<td>&lt;0.03</td>
</tr>
</tbody>
</table>

All t-tests were performed within subjects.

To the Russian sample among all the test scenarios (Chi-square test $p<0.001$, Fig. 1).

When Russian subjects answered with extreme judgments, they were significantly more often “forbidden” compared to the English-speaking sample, across all scenarios (Fig. 2A, Mann–Whitney U-test $p<0.01, r = 0.15$). In contrast, when English-speaking subjects answered with extreme judgments, they were significantly more often “obligatory” compared to the Russian subjects (Fig. 2B, Mann–Whitney U-test $p<0.001, r = 0.14$).

In the Russian sample, the percentage of “forbidden” judgments was greater than the percentage of “obligatory” judgments (Fig. 3A, Mann–Whitney U-test $p<0.000, r = 0.27$). In the English sample, there was no statistically significant
Figure 1. The percentage of extreme judgments within the three principles of harm in Russian and English-speaking samples. Dark bars indicate the Russian sample, light bars indicate the English-speaking sample.

Figure 2. The percentage of “forbidden” and “obligatory” judgments in Russian and English-speaking subjects. Medians and quartiles are shown for all 30 test scenarios. Dark bars indicate the Russian sample, light bars the English-speaking sample. (A) Russian extreme judgments are significantly more often “forbidden” compare to the English-speaking sample; (B) Extreme judgments made by English-speaking subjects are more often “obligatory” compare to ones made by Russian subjects.
difference in the percentage of “forbidden” and “obligatory” judgments (Fig. 3B, Wilcoxon matched pairs test, \( p > 0.7, r = 0.02 \)).

**Discussion**

The goal of this study was to explore the universality of three principles of moral harm by testing a Russian population. Overall, results provide further evidence that like English speaking Westerners, Russian judgments are mediated by these three principles. At a more micro-level of analysis, however, we also found that Russians tended to use less extreme judgments than their Western counterparts. We turn next to a critical discussion of these findings and their implications for current theories of moral psychology.

**Universality of the Three Principles of Harm**

The results of this study showed that Russian participants judged action-based harms as worse than omission-based harms, means-based harms as worse than side-effects and contact-based harms as worse than non-contact. These data conform to the effects shown in the English-speaking sample of Cushman and colleagues (2006), and to the data on the action-omission distinction for a Dutch sample (Hauser et al., 2009). These results are therefore consistent with the view that such principles or distinctions cut across significant cultural variation in expressed moral behavior and formal laws. They are also consistent with a variety of hypotheses that point to the constraining role of
biology in our moral psychology, an endowment that leads to universal patterns of judgments.

Support for the action-omission distinction, though statistically significant for four out of the six scenarios, was more variable than in the English Western sample, in which all six scenarios showed statistically significant differences. In one of the action-omission cases (“Switch”) showing no statistically significant difference in the Russian sample, the effect size for the Western sample was by far the lowest (0.13 versus a range from 0.34–0.84) in the overall set; the other scenario that failed to reach statistical significance in the Russian sample (“Ship”) also showed a relatively low effect size (0.41, which was the third lowest in the set). It is thus possible that these scenarios presented weaker differences between action and omission, and that some translated words further weakened the difference in Russian. At present, it is not possible to distinguish between noise and a more significant psychological difference for the action-omission distinction.

The Specificity of Russian Moral Judgments

Accompanying the significant evidence of universality, there was some evidence of cross-cultural variation. This is consistent with a variety of proposals in which our underlying biology constrains the range of variation, including the idea that cultural expressions enrich and customize those aspects that are fundamental to all human societies.

As noted above, the only cultural difference observed at the level of each of the primary principled distinctions concerned the robustness of the action-omission distinction. This observation could reflect cultural differences, perhaps due to aspects of perceived responsibility. As stressed above, Russian culture has important features of the Eastern collectivist type of cultures (Tower et al., 1997; Matsumoto et al., 1998; Varnum et al., 2009; Alexandrov and Alexandrova, 2009; Grossmann and Varnum, 2011). Eastern cultures are characterized by collectivist interdependent social orientation (the orientation for group interests rather than personal) as opposed to Western societies which are characterised by individualist independent orientation (orientation for personal interests) (Nisbett et al., 2001; Varnum et al., 2009; Grossmann and Varnum, 2011). One aspect of this description worth noting is that East–West differences in social orientation for interdependency are associated with such cognitive styles as holistic as opposed to analytic, and dialectic as opposed to formal logic (Nisbett et al., 2001; Varnum et al., 2009). Another aspect of interdependent orientation is the emphasis on interconnectivity, obligations and responsibility in social interaction between members of such societies. In independently
oriented cultures individuals tend to view themselves as separate from social others, whereas in interdependently oriented cultures individuals tend to view themselves as interconnected and as encompassing important relationships (Markus and Kitayama, 1991; Varnum et al., 2009). Studies show that Russians are more interdependent than Americans (Matsumoto et al., 1998; Varnum et al., 2009) and Germans (Naumov, 1996). Thus, it is possible that when Russian subjects judged our moral dilemmas, they considered the protagonist’s action in the context of a wide interrelated social network where the moral difference between harmful actions and omissions was reduced under the pressure of perceived responsibility towards the members of society.

Second, our less pronounced effects within the action principle might arise from the peculiarities of the certain pairs of scenarios – as noted – or may link back to issues of responsibility. To perceive omissions of harm as comparable to harmful actions, one must see omitters as responsible. This attitude is consistent with a collectivist perspective, in which ones actions are more closely linked to others. In this light, it is also interesting to note both experimental evidence and cross-cultural work suggesting that unlike the other two principles of harm, the action-omission distinction appears more plastic, more open to cultural influences. Thus, for example, Haidt and Baron (1996) showed that they could eliminate or reduce the robustness of the action-omission distinction by manipulating aspects of the protagonist’s social relationship to the victim: the closer the relationship (e.g., family member, close friend), the less subjects judged actions as worse than omissions. Similarly, Abarbanell and Hauser (2010) found that a rural Mayan population judged means-based harms as worse than side-effects, but perceived no difference between actions and omissions. One explanation of these results is that like other small scale societies, this Mayan population lives in an environment in which everyone knows everyone else and, thus, can hold individuals responsible for their omissions; this is simply not possible in a large scale society. Further research is necessary to determine whether the early exposure to Russian culture sets up a norm of responsibility for others, despite the large scale nature of the society.

The results at the level of individual judgments showed that Russian subjects tended toward the middle of the response scale, avoiding the extreme judgments relative to Western, English-speaking subjects; and, when selecting the extremes, they tended to answer “forbidden” more often than “obligatory”. As stated above, we consider Russian culture as fairly representative of Eastern cultures. In place of logic, which is usually appealed to solve problems and to make judgments in Western thought, Eastern cultures use a dialectic which involves reconciling, transcending, and even accepting apparent contradictions (Nisbett et al., 2001; Nisbett and Masuda, 2003). Dialectic thinking allows
two contradictory judgments to be true to some extent. In contrast with formal logic which makes a clear distinction between two alternatives A and not-A, a dialectic mode of thought tends to compromises. Thus, although “forbidden” and “obligatory” represent mutually exclusive and equally available options from a formal point of view, they pose a dilemma that must be resolved from a dialectic perspective, one that may have pushed our Russian subjects toward the center of the scale anchored at “permissible.” This tendency has also been observed in studies of moral judgments concerning abortion, in which Russians tended to avoid expressing clear and distinct judgments relative to Americans (Znakov, 2010).

In summary, this study expands the cross-cultural evidence for universality for three principles of moral harm, adding a Russian population that is typical of other Eastern collectivist cultures. These results are consistent with previous studies in other cultures and support the view that at least some aspects of our moral psychology operate over a set of universal mechanisms. These universal processes do not, however, eliminate cultural variation. Rather, they allow for a limited range of variation. In the present study, Russian culture shows its distinctive signature by expressing a less pronounced action-omission distinction, a more frequent use of the middle of the scale representing compromise between extremes, and the preference to assess protagonists’ actions as “forbidden” more often than “obligatory”. These tendencies are most likely mediated by exposure to a collectivist culture, one that nurtures, interdependency and dialectic thinking.

Acknowledgements

K.R.A. and Y.I.A. are supported by RFH (No. 12-36-01392a) and The Grants Council of the President of the Russian Federation for the Major Scientific Schools of Russia (No. 3010.2012.6), and M.D.H. by an NSF-HSD grant.

References


Appendix A

Original moral dilemmas in English and their translation into Russian language.

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam is driving his motorboat when he notices five swimmers drowning in the distance. If Adam does not drive toward them at top speed he will not arrive in time, and all five will die. In order to drive at top speed, Adam must accelerate quickly. If Adam accelerates quickly, he will save the five drowning swimmers. If Adam does not accelerate quickly, the five swimmers will drown. Adam decides to accelerate quickly. Accelerating quickly is:</td>
<td>Управляя моторной лодкой, Андрей замечает пятерых пловцов, которые тонут вдалеке. Если Андрей не поплывет к ним с максимальной скоростью, он не успеет их спасти, и все пятеро погибнут. Чтобы плыть с максимальной скоростью, Андрей должен резко прибавить газ. Если он резко ускорится, то спасет пловцов. Если он не сделает этого, они все утонут. Андрей решает резко прибавить газ. Резко прибавить газ – это:</td>
</tr>
</tbody>
</table>
Ben sees that an empty runaway boxcar is headed down a track. There is nobody on the track. There is one person working on a side track. If Ben flips the switch, the boxcar will turn onto the side track and hit the one person. If Ben does not flip the switch, the boxcar will continue on the track, and nobody will be hit. Ben decides to flip the switch.

Flipping the switch is:

Connor is at a new aquarium exhibit when he sees a visitor slip on a wet floor, fall down, and break his neck. The visitor is still alive and can be safely evacuated by medics so long as he is not moved. He has fallen, however, on top of the oxygen supply line servicing five other visitors in an underwater observation pod. Without oxygen, the five visitors will soon die. If Connor does nothing the one visitor will be safely evacuated, but the five visitors in the pod will die. If Connor pushes the one visitor off the supply line this one visitor will die, but the five visitors in the pod will have their oxygen restored and will live. Connor decides to push the one visitor.

Pushing the one visitor is:

Mike is at a new aquarium exhibit when he sees a visitor slip on a wet floor, fall down, and break his neck. The visitor is still alive and can be safely evacuated by medics so long as he is not moved. He has fallen, however, on top of the oxygen supply line servicing five other visitors in an underwater observation pod. Without oxygen, the five visitors will soon die. If Mike does nothing the one visitor will be
safely evacuated, but the five visitors in the pod will die. If Mike pulls the supply line out from under the one visitor this one visitor will die, but the five visitors in the pod will have their oxygen restored and will live. Mike decides to pull the supply line.

Pulling the supply line is:

Justin is driving his motorboat in the bay when he notices some swimmers in trouble. There are five swimmers drowning at the end of a narrow channel in front of Justin. In between Justin and the drowning swimmers is another swimmer who is safe and not in trouble. If Justin takes the narrow channel to the five drowning swimmers and saves them, the wake from Justin’s boat will wash over the safe swimmer, drowning him. If Justin does nothing, the five swimmers will drown and the one swimmer will remain safe. Justin decides to take the narrow channel.

Taking the narrow channel is:

Don is driving his motorboat in the bay when he notices some swimmers in trouble. There are five swimmers drowning at the end of a channel in front of Don. To the side of the channel there is another swimmer drowning. If Don stops to save the one swimmer on the side of the channel, he will not be able to get to the five swimmers in time to save them. If Don continues to speed towards the five swimmers past the one swimmer, the one swimmer will drown, but he will reach the five swimmers in time to save them. Don decides to continue to speed towards the five swimmers.

Continuing to speed towards the five swimmers is:
Standing by the railroad tracks, Dennis sees an empty, out-of-control boxcar about to hit five people. Next to Dennis is a lever that can be pulled, sending the boxcar down a side track and away from the five people. But pulling the lever will also lower the railing on a footbridge spanning the side track, causing one person to fall off the footbridge and onto the side track, where he will be hit by the boxcar. If Dennis pulls the lever the boxcar will switch tracks and not hit the five people, and the one person to fall and be hit by the boxcar. If Dennis does not pull the lever the boxcar will continue down the tracks and hit five people, and the one person will remain safe above the side track. Dennis decides to pull the lever.

Pulling the lever is:

Standing on a footbridge spanning the railroad tracks, Frank sees an empty, out-of-control boxcar about to hit five people. Frank’s leg is stuck in the railing, but next to Frank is one person who he can push, causing the one person to fall off the footbridge and onto the main track where he will be hit by the boxcar. The boxcar will slow down because of the one person, therefore preventing the five from being hit. If Frank pushes the one person, the one person will fall and be hit by the boxcar, and therefore the boxcar will slow down and not hit the five people. If Frank does not push the one person the boxcar will continue down the tracks and hit five people, and the one person will remain safe above the main track. Frank decides to push the one person.

Pushing the one person is:

(Cont.)
Standing by the railroad tracks, Evan sees an empty, out-of-control boxcar about to hit five people. Next to Evan is a lever that can be pulled, lowering the railing on a footbridge that spans the main track, and causing one person to fall off the footbridge and onto the main track, where he will be hit by the boxcar. The boxcar will slow down because of the one person, therefore preventing the five from being hit. If Evan pulls the lever the one person will fall and be hit by the boxcar, and therefore the boxcar will slow down and not hit the five people. If Evan does not pull the lever the boxcar will continue down the tracks and hit the five people, and the one person will remain safe above the main track. Evan decides to pull the lever.

Pulling the lever is:

Standing by the railroad tracks, Jeff sees an empty, out-of-control boxcar speeding toward five people. There is one person on a footbridge spanning the main tracks who is slipping and about to fall onto the main track, where he will be hit by the boxcar. The boxcar will slow down because of the one person, therefore preventing the five from being hit. Next to Jeff is a lever that can be pulled, raising the railing on the footbridge and preventing the one person from falling. If Jeff does not pull the lever the one person will fall and be hit by the boxcar, and therefore the boxcar will slow down and not hit the five people. If Jeff pulls the lever the boxcar will continue down the tracks and hit five people, and the one person will remain safe above the main track. Jeff decides not to pull the lever.

Not pulling the lever is:
(cont.)

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rick is a fireman trying to help five children out of a burning house. There is only one window from which the children can be safely evacuated, and it is jammed shut. Rick must immediately smash open this large, heavy window or else all five children will die. Outside the window, on the sill, is a man safely awaiting evacuation who Rick cannot help hitting with his fist if he breaks the window, causing the man to fall off the sill. Falling off the sill is certain to kill the man. If Rick breaks open the window he will hit the man with his fist, the man will fall off and die, but the five children will be safely evacuated. If Rick does not break open the window the man will be safely evacuated, but the children will die. Rick decides to break open the window. Breaking open the window is: Ken is a fireman trying to help five children out of a burning house. There is only one window from which the children can be safely evacuated, and it is jammed shut. Ken must immediately smash open this large, heavy window or else all five children will die. Outside the window, on the ground below, is a man safely awaiting evacuation who Ken cannot help hitting with heavy falling glass if he breaks the window. The falling glass is certain to kill the man. If Ken breaks open the window, he will hit the man with the glass, the man will die, but the five children will be safely evacuated. If Ken does not break open the window, the man will be safely evacuated, but the five children will die. Ken decides to break open the window. Breaking open the window is:</td>
<td></td>
</tr>
<tr>
<td>Рома – пожарник, он пытается спасти пятерых детей из горящего дома. В доме только одно окно, откуда можно безопасно эвакуировать детей, и его заклинило. Рома должен немедленно выбить это большое тяжелое окно, иначе все пять детей погибнут. За окном на подоконнике находится человек, в безопасности ожидающий эвакуации, которого Рома неизбежно столкнет с подоконника, если выбьет стекло. Падение с подоконника несомненно окажется для него смертельным. Если Рома выломает окно, он собьет человека, и тот погибнет, упадя с подоконника, но пятерых детей удается эвакуировать. Если Рома не выломает окно, то человека спасут, но погибнут дети. Рома решает выломать окно. Выломать окно – это:</td>
<td></td>
</tr>
<tr>
<td>Стас – пожарник, он пытается спасти пятерых детей из горящего дома. В доме только одно окно, откуда можно безопасно эвакуировать детей, и его заклинно. Стас должен немедленно выломать это большое тяжелое окно, иначе все пять детей погибнут. Под окном на земле находится человек, в безопасности ожидающий эвакуации. Если Стас выбьет стекло, оно неизбежно упадет на этого человека. Падение стекла несомненно окажется для него смертельным. Если Стас выломает окно, стекло упадет на человека, и тот погибнет, но пятерых детей удается эвакуировать. Если Стас не выломает окно, то человека спасут, но погибнут дети. Стас решает выломать окно. Выломать окно – это:</td>
<td></td>
</tr>
</tbody>
</table>
Peter is a fireman trying to help five children out of a burning house. There is only one window from which the children can be safely evacuated, and it is jammed shut. Peter must immediately use an object to smash open this large, heavy window or else all five children will die. The only sufficiently large object is a man on his way towards safely escaping the burning house. Crashing through the window is certain to kill the man. If Peter pushes the man into the window and breaks it open, the man will fall out and die, but the five children will be safely evacuated. If Peter does not push the man into the window the man will safely escape, but the five children will die. Peter decides to push the man.

Pushing the man is:

Andy is a fireman trying to help five children out of a burning house. There is only one window from which the children can be safely evacuated, and it is jammed shut. Andy must immediately use an object to smash open this large, heavy window or else all five children will die. The only sufficiently large object is a man on his way towards safely escaping the burning house. Andy can break open the window by swinging a piece of burning debris towards the man, which will cause the man to jump out of the way, lose his balance and crash into the window. Falling out of the window is certain to kill the man. If Andy swings the burning debris the man will break open the window, fall out and die, but the five children will be safely evacuated. If Andy does not swing the burning debris, causing the man to break open the
window, the man will safely escape, but the five children will die. Andy decides to swing the burning debris.

Swinging the burning debris is:

Ed is driving five sick people to the hospital. They are in critical condition and will die if Ed makes any stops along the way. In his hurry to pack them in the car Ed slams the door on a few feet of thick cord that is now dangling beside the car. Ed takes the fastest route to the hospital, which is a narrow, unpaved mountain pass. On his way, Ed sees a rock climber hanging onto the side of the mountain beside the road. The rock climber is safe and in control, but if Ed drives by the thick cord dragging along the side of his car will dislodge the rock climber, causing him to fall to his death. If Ed slows to a stop and waits, the rock climber will be able to reach a stable landing where the cord will not dislodge him, but it will be too late to save the five people. If Ed continues to drive, the one person will fall to his death and the five will be saved. Ed decides to continue to drive.

Continuing to drive is:

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain

Jack is driving five sick people to the hospital. They are in critical condition and will die if Jack makes any stops along the way. In his hurry to pack them in the car Jack slams the door on a few feet of thick cord that is now dangling beside the car. Jack takes the fastest route to the hospital, which is a narrow, unpaved mountain
pass. On his way, Jack sees a rock climber hanging onto the side of the mountain beside the road. The rock climber is losing control and is about to fall to his death, but he could be saved if he had a cord to pull himself up. If Jack slows to a stop the rock climber will be able to use the cord dangling from the side of the car to pull himself up to safety, but it will be too late to save the five people. If Jack continues to drive, the one person will fall to his death and the five will be saved. Jack decides to continue to drive.

Continuing to drive is:

Tim works at a hospital. He is in charge of a machine that can both increase and decrease the amount of a certain chemical in a patient’s bloodstream. Too much or too little of the chemical results in death. Tim notices that the machine has pumped a near toxic amount of the chemical into a patient’s body. Tim must immediately stop the machine to save the patient’s life. However, he sees that five other patients with toxic amounts of the chemical are hooked up to the machine. The machine is removing the chemical from these five patients. If Tim stops the machine to save the one patient, the five other patients will die. If Tim does not stop the machine, the one patient will die, but the five other patients will survive. Tim decides not to stop the machine.

Not stopping the machine is:
Bob works at a hospital. He is in charge of a machine that can both increase and decrease the amount of a certain chemical in a patient’s bloodstream. Too much or too little of the chemical results in death. Bob notices that the machine has pumped a near toxic amount of the chemical into a patient’s body. Bob must immediately disconnect the patient to save the patient’s life. However, he sees that five other patients with toxic amounts of the chemical are hooked up to the machine. The machine is removing the chemical from these five patients and will continue to do so only if it can maintain equilibrium by continuing to pump the chemical into the one patient. If Bob disconnects the machine to save the one patient, the machine will not be able to maintain equilibrium and the five other patients will die. If Bob does not disconnect the machine from the one patient, the one patient will die, but the five other patients will survive. Bob decides not to disconnect the machine from the one patient.

Not disconnecting the machine from the one patient is:

James is hiking through a foreign land when he comes across a remote village. James learns that one of the villagers fell into a cursed pond but, contrary to local superstition, did not die. If the one villager does not die by sunrise, five other innocent and unwilling villagers will be sacrificed to the gods to thank them for sparing the one. James, who has some medical training, realizes that he can prevent the sacrifice of the five villagers if he
secretly poisons the one villager. If James poisons the one, the one will be dead by sunrise, and the five will not be sacrificed. If James does not poison the one, the one will not be dead by sunrise, and the five will be sacrificed as planned. James decides to poison the one. James decides to poison the one.

Poisoning the one is:

Robert is hiking through a foreign land when he comes across a remote village. Robert learns that one of the villagers fell into a cursed pond but, contrary to local superstition, did not die. If the one villager does not die by sunrise, five other innocent and unwilling villagers will be sacrificed to the gods to thank them for sparing the one. Robert, who has some medical training, notices that the one has accidentally consumed a poisonous substance. Robert can administer the antidote to the one villager. If Robert withholds the antidote from the one, the one will die by sunrise, and the five will not be sacrificed. If Robert does provide the antidote to the one, the one will not be dead by sunrise, and the five will be sacrificed as planned. Robert decides not to provide the antidote to the one.

Not providing the antidote to the one is:

Fred is working on the top floor of a construction project when he sees a gearbox at the end of a steel beam is about to break. Suspended from the gearbox is an elevated platform with five workers on it, and if the gearbox breaks the five workers will fall to their deaths. Fred can save the five if he rushes across the steel beam immediately to engage the backup
mechanism on the gearbox. In between Fred and the gearbox there is a worker standing on the beam. Fred knows that if he rushes across the narrow beam he is certain to bump into the other worker, causing this worker to fall to his death. The construction site is too noisy for Fred to warn the other worker. If Fred does nothing, the gearbox will break and the five workers will fall to their deaths, but the one worker will remain safe. If Fred rushes to engage the backup mechanism, the five workers will be saved but Fred will bump into the one worker, who will fall to his death. Fred decides to rush to engage the backup mechanism.

Rushing to engage the backup mechanism is:

Ethan is working on the top floor of a construction project when he sees a gearbox at the end of a steel beam is about to break. Suspended from the gearbox is an elevated platform with five workers on it, and if the gearbox breaks the five workers will fall to their deaths. Ethan can save the five if he rushes across the steel beam immediately to engage the backup mechanism on the gearbox. In between Ethan and the gearbox there is a gate and a worker standing next to the gate. Ethan knows that if he rushes through the gate, the gate is certain to bump into the other worker, causing this worker to fall to his death.

The construction site is too noisy for Ethan to warn the other worker. If Ethan does nothing, the gearbox will break and the five workers will fall to their deaths, but the one worker will remain safe.
If Ethan rushes to engage the backup mechanism, the five workers will be saved but Ethan will cause the gate to bump into the one worker, who will fall to his death. Ethan decides to rush to engage the backup mechanism.

Rushing to engage the backup mechanism is:

Joe is drifting along in his motorboat at the mouth of a narrow channel when he notices a shark approaching. Further down the channel he sees five swimmers. If Joe maintains his current position, his boat will obstruct the entrance to the channel, thereby preventing the shark from attacking the five swimmers. However, Joe sees another swimmer drowning in the distance. Joe can save the one swimmer by immediately moving toward him in the motorboat, thereby leaving the channel open to the shark. If Joe moves towards the one swimmer in his motorboat, the one swimmer will live but the five swimmers will be eaten by the shark. If Joe does not move toward him, the one swimmer will drown but the five swimmers will remain safe. Joe decides not to move toward the one swimmer.

Not moving toward the one swimmer is:

Casey is drifting along in his motorboat near the mouth of a narrow channel when he notices a shark approaching. Further down the channel he sees five swimmers. However, one other swimmer is positioned at the mouth of the channel such that the shark will attack the one
first, giving the five the necessary time to escape. Casey can save the one swimmer by immediately moving toward him in the motorboat, but saving the one swimmer would also leave the channel open to the shark. If Casey moves towards the one swimmer, the one swimmer will live but the five swimmers will be eaten by the shark. If Casey does not move toward him, the one swimmer will be eaten by the shark but the five swimmers will remain safe. Casey decides not to move toward the one swimmer.

Not moving toward the one swimmer is:

Mark receives a communication that the captain of a cargo ship has contracted a highly infectious disease. The captain himself is only a carrier of the disease and is immune to the symptoms, but anybody who comes into contact with him will die. No passengers are on the ship. The ship is headed for a remote island where the captain will hand-deliver the cargo to the five islanders. The captain does not know that he is carrying the disease and has no radio on board to receive a warning. Mark takes off in a helicopter to intercept the ship, but from a distance he sees the ship about to dock. The only way Mark can stop the captain from transmitting the disease is to use a missile to blow up the ship. If Mark fires the missile, the captain will die and the five islanders will live. If Mark does not fire the missile, the captain will live and the five islanders will die. Mark decides to fire the missile.

Firing the missile is:
George receives a communication that the captain of a cargo ship has contracted a highly infectious disease. The captain himself is only a carrier of the disease and is immune to the symptoms, but anybody who comes into contact with him will die. No passengers are on the ship. The ship is headed for a remote island where the captain will hand-deliver the cargo to the five islanders. The captain does not know that he is carrying the disease and has no radio to receive a warning. George takes off in a helicopter to intercept the ship, but from a distance he sees the ship about to dock. The ship is on fire, however, and the captain will be burned before the ship docks. George could fire a missile into the water next to the ship, causing a splash that would put out the fire and save the captain. If George fires the missile the captain will live but the disease will be transmitted, killing the five islanders. If George does not fire the missile the captain will die and the five islanders will live. George decides to fire the missile.

Firing the missile is:

John is driving a motorboat when he notices five swimmers drowning in the distance. If John does not drive toward them at top speed, he will not arrive in time, and all five will die. In order to drive at top speed, John must lighten the load on his boat. The only way to lighten the load is to push his passenger with his hands and cause the passenger to tumble off the back of the boat. This passenger cannot swim and will drown. If John pushes the passenger, the one passenger will drown, but John will save the five drowning swimmers. If John does not push the passenger, the one passenger will not drown, but the other swimmers will die.
English | Russian
--- | ---
five swimmers will drown. John decides to push the one passenger. | жира, тот останется в живых, но утонут пять пловцов. Слава решает столкнуть пассажира.
Pushing the one passenger is: | Столкнуть пассажира – это:

Matt is driving a motorboat when he notices five swimmers drowning in the distance. If Matt does not drive toward them at top speed he will not arrive in time, and all five will die. In order to drive at top speed, Matt must accelerate quickly. Accelerating quickly will also cause a passenger to tumble off the back of the boat. This passenger cannot swim and will drown. If Matt accelerates quickly, the one passenger will drown, but Matt will save the five drowning swimmers. If Matt does not accelerate quickly, the one passenger will stay safely on the boat, but the five swimmers will drown. Matt decides to accelerate quickly.

Accelerating quickly is:

Dave is driving a motorboat when he notices five swimmers drowning in the distance. If Dave does not drive toward them at top speed he will not arrive in time, and all five will die. In order to drive at top speed, Dave must lighten the load on his boat. The only way to lighten the load is to accelerate quickly and cause a passenger to tumble off the back of the boat. This passenger cannot swim and will drown. If Dave accelerates quickly, the one passenger will drown, but Dave will save the five drowning swimmers. If Dave does not accelerate quickly, the one passenger will not drown, but the five swimmers will drown. Dave decides to accelerate quickly.

Accelerating quickly is:
Todd is operating the switch at a railroad station when he sees an empty, out of control boxcar coming down the tracks. It is moving so fast that anyone it hits will die immediately. The boxcar is headed towards a repairman whose leg is caught in the switch. If Todd does nothing, the boxcar will hit the repairman and then come to a stop on the empty main track where nobody else is threatened. Todd can pull a lever that will switch the tracks and release the repairman’s leg, allowing him to jump safely out of the way. However, switching the tracks will send the boxcar down a side track where it will hit five other repairmen working on the tracks. Todd decides not to pull the lever.

Not pulling the lever is:

Luke is operating the switch at a railroad station when he sees an empty, out of control boxcar coming down the tracks. It is moving so fast that anyone it hits will die immediately. The boxcar is headed towards five repairmen on the track. If Luke does nothing, the boxcar will hit the five repairmen on the track. Luke can pull a lever redirecting the boxcar to an empty sidetrack. However, pulling the lever will cause the switch to crush one other repairman working on the switch, who will die immediately. Luke decides to pull the lever.

Pulling the lever is:

(continues)
Alan is operating the switch at a railroad station when he sees an empty, out of control boxcar coming down the tracks. It is moving so fast that anyone it hits will die immediately. The boxcar is headed towards a repairman whose leg is caught in the switch. Further down the main track are five more repairmen. If Alan does nothing, the boxcar will hit the one repairman and therefore slow to a stop and not hit the other five repairmen. Alan can pull a lever and release the repairman's leg, allowing him to jump safely out of the way. However, releasing the repairman will allow the boxcar to continue down the main track where it will hit the five other repairmen working on the tracks. Alan decides not to pull the lever.

Not pulling the lever is:

Илья управляет стрелкой на железнодорожной станции. Он видит, что пустой неуправляемый вагон едет по железной дороге с такой скоростью, что собьет любого на смерть. Вагон вот-вот собьет рабочего, нога которого застряла в стрелке. Дальше на пути находятся еще пять рабочих. Если Илья ничего не сделает, вагон собьет одного рабочего, остановится и не заденет пятерых рабочих. Илья может перевести стрелку и освободить ногу рабочего, позволив ему отпрывнуть с путей. Однако, освободив ногу одного рабочего, Илья даст вагону проехать и сбить пять рабочих. Илья решает не тянуть за рычаг.

Не потянуть за рычаг – это: