Training Effective Altruism

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July 2021

Abstract

Randomizing different schools of thought on cultivating prosociality among deputy ministers in Pakistan finds that training utilitarian value of empathy renders 0.4-0.6 sigma greater altruism, cooperation, coordination, and teamwork, while orphanage visits, volunteering in impoverished schools and blood donations roughly double. Treated ministers increased mentalizing of others, not only in strategic dilemmas measuring theory of mind, but also in the field: blood donations only increased when the blood bank requested their exact blood type. Social media and honesty were also affected. We interpret these results and null effects of training malleability-of-the-self through the lens of self-image models.

JEL Codes: J01, J24; D64; D73; M50
Keywords: soft-skills, prosociality, altruism

We can never survey our own sentiments and motives, we can never form any judgment concerning them; unless we remove ourselves, as it were, from our own natural station, and endeavour to view them as at a certain distance from us. But we can do this in no other way than by endeavouring to view them with the eyes of other people, or as other people are likely to view them. —Adam Smith, *The Theory of Moral Sentiments* (1759)

I.   Introduction

Prosociality—behavior that benefits others or society as a whole—is critical in contract enforcement, management of commons, public goods provision, establishing effective rule of law, and efficient governance in societies (Knack and Keefer, 1997; La Porta et al., 1997; Fehr and Gächter, 2002; Ostrom et al., 2002; Henrich et al., 2004; Guiso, Sapienza, and Zingales, 2009; Bloom, and Van Reenen, 2011; Cooper and Kagel, 2015; Burks et al. 2016; Robalino and Robson, 2016; Deming, 2017). This fact has raised an important policy question: How can prosociality be cultivated? Beyond laboratory studies showing short-term malleability of prosocial behavior, there have been few large-scale randomized control trials to train prosociality effectively, especially in adults. A pioneering experiment found improvements in prosociality after an early childhood intervention (Heckman et al., 2013), while recent experiments build on this and find improvements in prosociality from one year of mentoring of elementary school children (Falk et al., 2020) and from a yearlong, three-hours a week curriculum designed to build social cohesion in schools (Alan et al., 2021). We explore an effective way to train prosociality among adults that can be scaled, inspired by a philosophy associated with Peter Singer (one of the "most influential ethicists alive", Goldhill, 2016) who highlights cultivating prosociality through utilitarianism (the principle that one should evaluate actions by the utility it achieves for yourself or society as a whole) – which he calls "effective altruism" (Singer, 2015).[2] We horse race Peter Singer's effective altruism against a psychological school of thought on cultivating prosociality by emphasizing the malleability of the self.

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[2] Peter Singer is well known for his strict adherence to utilitarianism and advocacy of animal 'liberation'. Singer's ideas are reported to inspire career choices of individuals, kidney donations, founding of large charitable, animal rights organizations and the whole "effective altruism movement" (Goldhill, 2016; Guardian, 2000, Wall Street Journal, 1999).

We study deputy ministers in an elite training Academy in Pakistan. They are high-achieving, high-stakes decision-makers. Deputy ministers advise the President, Prime Minister and Cabinet Ministers; about 1% are chosen from about 15,000 exam takers annually. When asked why they joined, about 70% reported that the main reason they joined public service is because of associated perks and power rather than joining for prosocial motives (Training Academy's Internal Survey, 2020). Shifting these attitudes has been a priority of the Academy.

To build prosociality, we leverage recent economic insights on the increasing importance of soft-skills[3] – empathy in particular (Deming 2017). Perspective-taking or "putting oneself in another's shoes" (Premack and Woodruff, 1978) is called "Theory of Mind" by psychologists and "Degree of Strategic Reasoning" by economists. Soft-skills have been formally modeled to reduce coordination costs so that teams, organizations, and society work together more effectively, but there are three challenges: measuring soft-skills (such as teamwork and coordination), understanding the mechanisms (such as theory of mind, which is critical in models of soft-skills), and identifying causal effects (Deming and Weidmann 2021). Our paper seeks to make progress on all three challenges.

We show that training high-stakes decision makers in the utility of empathy increases their altruism, perspective-taking, and honesty. We measure perspective-taking in a competitive interactive setting – the "beauty contest" or "guessing game" (Nagel 1995) – a game akin to rock paper scissors. Recent studies have documented that high performance in these strategic dilemmas is associated with neural activity in the medial prefrontal cortex associated with successful mentalizing (Coricelli et al. 2009). We measure honesty in the die-rolling or "lying game" (Abeler, et al. 2019; Gneezy, et al. 2018; Fischbacher, et al. 2013). Honest public servants are important for strong governance, fiduciary duty, and rule of law.

Besides altruism, which we document in laboratory measurements (donations to each other and to charities), we observe evidence consistent with effective altruism: we solicit blood donations by volunteers at a prominent blood bank and find that blood donations increased, but only when the deputy ministers were told that their exact blood type was in need. This is consistent with the ministers mentalizing whether the blood donation will actually be useful to others. Cooperation and coordination in strategic dilemmas also increased as did orphanage visits and volunteering at impoverished schools in the field 4 months following the intervention; scores on a regular soft skills assessment administered by the training Academy

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[3] Soft skills, also called non-cognitive skills, are simply the residual that is not predicted by IQ or achievement tests (Deming, 2017). They include skills like emotional intelligence, collaboration, teamwork and empathy.

covering topics of negotiation, cooperation and leadership also increased. Six months after the intervention, a committee of senior public officials and former deputy ministers scored treated ministers more highly on teamwork and group decision-making assessments in a 1-day policy scenario simulation workshop.

Finally, we observe a shift in language use in social media: the utilitarian treated group is about 20 percentage points more likely to use "we" than "I" and about 40 percentage points more likely to use "us" than "them" relative to the placebo group on their social media feeds. This is a substantial effect and equivalent to about doubling of the usage of "we" and "us" relative to the placebo group. These measurements are novel—in data linkages—between lab behaviors to administrative data and to field behaviors like blood donations, orphanage visits, volunteering, policy assessments, and social media feeds—and in substance—showing novel evidence that training the utilitarian value of empathy improves theory of mind in strategic dilemmas.

We horse race Peter Singer's effective altruism against Carol Dweck's malleability of the self, associated with a psychological school of thought on cultivating prosociality by emphasizing the malleability of empathy, and find little evidence of the latter, even in combination with the former. We interpret this null result in light of theoretical self-image models of Benabou and Tirole (2004, 2006, 2011). In this framework, empathetic behavior informs our identity as a prosocial person. Malleability of one's prosociality means that our behavior is less informative about our identity. Formally, utilitarian training increases the private benefits of empathy while malleability training reduces the updating of perceptions upon taking empathetic actions. Consistent with this, we find deputy ministers treated with the malleability of the self decreased their ratings on the importance of prosociality.

We demonstrate robustness of these results through a series of sensitivity analyses. First, we show the randomly assigned groups are balanced across individual characteristics. The groups are also balanced in cognitive ability as measured by pre-treatment scores on mathematics and written assessments. This balance also holds for pre-treatment outcomes related to prosociality such as baseline blood donations and "psychological assessments" — conducted by a panel of psychiatrists — to screen potentially antisocial deputy ministers who pass the written exam. The results are also robust to randomization inference and adjustments for multiple outcomes tests. Finally, experimental demand is unlikely to drive our results since 1) only those individuals whose exact blood type was requested increase their blood donations, 2) malleability treatment has no impact on prosocial behavior, and 3) a placebo assessment of

general quantitative skills shows they are unaffected — facts inconsistent with experimental demand explaining our results.

The paper contributes to several strands of the existing literature. First, to the best of our knowledge, we are the first to show that theory of mind (Nagel, 1995) can be altered in adults. Theory of mind may be related to recognition of others, be it their decisions in strategic dilemmas, their reference points, their emotions, or simply as their equals. As such, our study is also related to the formation of prosociality (Kautz et al., 2014; Burztyn et al. 2020). A few randomized control trials find medium- to long-term effects of training interventions (Heckman et al. 2013; Falk et al., 2020; Alan et al., 2021; Cappelen et al. 2020). Our results suggest that the principle of effective altruism could be a parsimonious foundation for formation of prosociality.

Second, we contribute to the literature on soft skills, which labor economists recognize as explaining large puzzles in the labor market over the last half-century (Autor, 2015; Deming 2017). Soft skills are also likely a key ingredient in the personnel economics of the state. A recent literature review highlighted three important channels for improving public service in developing countries—selection, incentives, and monitoring (Finan et al., 2017)—but there was no attention paid to soft skills nor how these "technologies" of production can be enhanced after the recruitment of public officials. To be sure, changing any of these factors – selection, incentives, monitoring, and even soft skills can theoretically decrease social welfare (Ashraf et al. 2020); however, we find evidence consistent with an increase in social welfare, for instance, emphasizing the private benefits of empathy led to increases in blood donations, in a context and time when "blood banks were practically empty" (Shaukat Khanam Hospital, 2021).

Third, our study applies recent theoretical developments in modeling the motivations of high-stakes decision makers such as public servants, where self-image and prosocial behavior may be an important driver of effective service delivery (Besley and Ghatak, 2018; Barfoot et al., 2019; Gulzar and Khan, 2021; Ashraf et al., 2020). We also map competing schools of thought on cultivating prosociality into these formal models and test them empirically.

This paper is organized as follows. Section II provides background information and the set-up of the experiment. Section III describes the data and empirical strategy. Section IV presents the results from the lab and the field and evidence in favor of the effective altruism mechanism. Section V details a series of robustness checks. A final section concludes.

II.   Background: Context and Study Design

A. *Background*

The Pakistan Federal Administrative Service inherited its structure from the Indian Public Service of British Colonial India. This is a permanent bureaucratic authority in Pakistan, which is responsible for running the central administrative operations and hiring deputy ministers, who serve as key policy advisors to the President, Prime Minister and cabinet ministers. The government considers these policy advisors as "key wheels on which the entire engine of the state runs" (Federal Government of Pakistan, 2019).

These elite individuals are selected through competitive examinations. The first stage consists of a written examination. This follows further screening via a psychological assessment with a panel of psychiatrists who analyze their "personality traits" to determine their level of prosociality and an interview with an elite panel of senior policy makers testing their interpersonal skills and ability to work under pressure.[4] The key requirement to be eligible to qualify for the first round written examination is to complete 16 years of education or hold a bachelor's degree in any subject. About 200 of these deputy ministers are selected out of 15,000 test takers annually, making the passing percentage about 1%. The specific cohort we study includes 14,521 candidates appearing for the first round of written examination, of which 365 passed the written examination and 213 qualified to serve by also passing psychological and interview assessments.

The deputy ministers participate in regular training programs. One of the key trainings takes place at an elite training facility referred to colloquially as the Academy. The training involves participating in workshops on various subjects such as public sector management, politics, history, economics, politics, and professional etiquette. These public officials receive a salary of at least USD 1,000 per month depending on their seniority, as well as several perks and privileges. Specifically, the perks include free housing (a bungalow), a car, a chauffeur, a meal allowance, and domestic help. Almost 70% of them report perks and associated power as the main reason for joining the service (Training Academy Internal Survey, 2020).[5]

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[4] The psychological assessment is an individual two-day-long "workshop" where each candidate, upon passing the written examination, appears before a panel of psychiatrists. They are asked to respond to images, scenarios involving vulnerable citizens and questions presented to them.

[5] As noted extensively in the literature, the associated perks are hard to value but are likely substantially larger than the USD 1,000 base salary (see e.g. Finan, Olken and Pande, 2017).

B. *Study Design*

We conduct a randomized evaluation implemented through a close partnership with the training Academy in Pakistan. The Academy is one of the most prestigious academies in the country providing training to elite policymakers. All activities at the Academy are mandatory. Attendance is handled strictly and becomes part of their permanent record. We obtained unique access to these deputy ministers during the training where we conducted a workshop entitled "Soft Skills Workshop'". The workshop was delivered online and was prerecorded. Table B1 in Appendix B presents a flow chart of the timing, procedural details and set-up of the experiment.

Sample and Randomization.— The study took place with a universe of 213 public officers who qualified for service in a single year of examination.[6] None of the participants had taken part in any prior randomized evaluation to the best of our knowledge. The Academy cooperated extensively before, during and after our intervention. The 213 deputy ministers were randomly assigned to one of the four treatment arms using a random number generator: (i) utilitarian treatment (53 participants); (ii) malleability treatment (54 participants); (iii) joint utilitarian and malleability treatment (53 participants) and (iv) placebo (53 participants).[7]

The four treatments were delivered via a non-shareable and non-downloadable link containing 4 different training lectures. The content for the training could only be accessed by entering the unique email address of the participant which was provided to us by the Academy. Participation was mandatory for the whole cohort. Apart from the Academy explicitly barring sharing of material and designating the training as an "individual assignment", we made sure that the training link was non-downloadable and could only be opened by the randomly assigned participant according to their treatment status.[8]

It should be noted that the participation of the top leadership of the Academy and the Federal Government of Pakistan was very helpful here. The email to "carefully watch the training lecture", not to discuss or share the material with any of their colleagues and that "failure to comply may lead to disciplinary action" was sent by the Director of the Academy

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[6] To protect their identity, and politically sensitive nature of this experiment, we do not reveal the exact year of examination of the cohort since this can allow everyone to identify all participants of the experiment.

[7] Individual-level randomization was performed using a random number generator in Stata.

[8] We used the services of an expert computer scientist who blocked sharing and downloading of the training lecture. The COVID-19 pandemic also meant that the 213 officers were in their homes, dispersed, all over Pakistan and were not in the usual training facility in Lahore which made it even more difficult for them to discuss the material provided to them and form new social connections.

from his official email address to everyone. It is also important to note that the same email by the Director was sent to everyone, including the group receiving placebo training; only the assigned training lecture varied. To maximize comprehension and retention, we also asked the policymakers to summarize the key lessons from their respective lectures in a short essay.

Table 1 reports individual level summary statistics by treatment group. Differences across treatment groups are small in magnitude, and almost all p-values estimates are larger than 0.10, suggesting that the randomization was effective at creating balance between the groups. For instance age, gender, birth in political capitals, asset ownership, foreign visits are balanced across randomly assigned groups.[9] Most salient to note are pre-treatment outcomes in particular those related to altruism: baseline blood donations and scores on pre-treatment psychological assessments used to screen antisocial candidates are balanced. The groups are also balanced in pre-treatment measures of cognitive ability such as mathematics and written assessment scores as well as non-cognitive ability interview assessment. The similarity of baseline blood donations, and across written, mathematics, interview and psychological assessments strongly suggest that the different treatment groups are balanced in both individual characteristics and pre-treatment altruism.

The rollout.— The treatments were deployed on 10th October 2020. The Academy's Director sent an email to all 213 deputy ministers. The email specified that it was part of the "mandatory" soft-skills workshop in their training program administered by the Federal Government of Pakistan. The email instructed them to open the assigned link associated with their name and enter their email address to access the assigned training.[10] They had a deadline of 20th October 2020 to watch the training lecture and write a short 500-word essay on the key lessons learned from the lecture. The randomly assigned link also became inactive once they had finished watching the training lecture.[11] Further details on the set-up and roll-out of the experiment can be found in the flow chart presented in Table B1 of Appendix B.

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[9]Following Duflo et al. (2015), Table 1 reports standard deviations in brackets and p-values corresponding to respective F statistics in italics.

[10] It is worth reiterating that the link was uniquely linked with their official email address and could not be accessed by someone else. This is possible using oTree (Chen, Schonger, and Wickens, 2016).

[11] The transcript of the email sent out to all officers is presented in Table B2 in the Online Appendix B.

Utilitarian Treatment.— Our first treatment involved the participants watching a training lecture emphasizing the utility of empathy and how it can privately benefit them in their personal and professional life.[12] The training reinforced this message by relying on two approaches: narratives and research studies, that is, both qualitative and quantitative evidence supports the idea that being empathic is not only prosocial but also privately beneficial. The training lecture begins by a motivating example or a "puzzle": why profit maximizing firms like Google invest millions in training their employees in showing empathy, e.g. at the *Google Empathy Lab*, especially when it is costly for them. We argue this is a profit maximizing response on the part of Google. We build on this example and emphasize several (truthful) real-life stories of former deputy ministers who were both known to be prosocial and empathic as well as famous for their stelar public service record. The training goes on to present main findings and discuss several studies that back up these narrative accounts. For instance, we discuss studies that show that demonstrating empathy benefits firms by making employees better able to deal with complex social relationships and hierarchies. The training also discusses studies showing how elite agents such as CEOs and senior managers are better able to motivate their employees, reduce shirking and increase overall productivity and profits by displaying more empathy specially towards their subordinates. The utilitarian training treatment concludes by reiterating the main message of this treatment: "*Qualitative and quantitative evidence backs the idea that showing empathy is good for you. It is not just the right thing to do but also the most sensible thing to do for your performance.*" The complete transcript of the training is presented in Table B3 of Appendix B.

Malleability Treatment.— Our second treatment arm was provided with training emphasizing the malleability of empathy. That is, how empathy changes over time within a person and across populations. This treatment was inspired by prior work in psychology that documents that degree of empathy a person has is not a fixed personality trait but is rather malleable. This literature finds that reminding subjects that empathy is not fixed can increase short-term empathic behavior (see Weisz and Zaki, 2017 for a review of this literature). The malleability training reinforced the malleability of empathy message by relying on two earlier approaches: qualitative and quantitative evidence. That is, this

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[12] All trainings, including the placebo, also involved the individuals writing a short 500 word essay summarizing the main lessons learned from the respective lectures.

training relied on narratives of personal transformation: stories emphasizing the malleability of empathy, and quantitative research in psychology that argues that empathy is malleable and that people can become more prosocial over time. The malleability training also concludes by reinforcing the main message of this treatment: "*Qualitative and quantitative evidence backs the idea that empathy is not fixed but is malleable. It is a skill that can be developed.*"[13]

Joint Utilitarian and Malleability Treatment.— Our third treatment arm received both utilitarian and malleability treatments together. This group was allocated the training that emphasized *both* the utility and malleability of empathy. Like our stand-alone treatments, this group received narrative accounts and quantitative evidence arguing that empathy is both beneficial for them and malleable. This training concludes by reinforcing the main message of this treatment: "*Qualitative and quantitative evidence backs the idea that empathy is good for you. It is not just the right thing to do but also the most sensible thing to do for your performance. Qualitative and quantitative evidence also backs the idea that empathy is not fixed but malleable. It is a skill that can be developed.*"[14]

Placebo.— Finally, our control group received a placebo training unrelated to the utility or malleability of empathy. They received a macroeconomics lecture taught in the economics undergraduate program at the Lahore School of Economics. The training lecture that this placebo group underwent covered basic macroeconomic concepts that include definitions and discussion of Gross Domestic Product, Gross National Product, Purchasing Power Parity and macroeconomic identities. All lectures, including the placebo, were delivered by the same person and every lecture ended with participants writing a 500 word essay summarizing key points of the lecture.

COVID-19 and Consequences for our Design.— At the Academy, training took place in September and officers typically reside at the Academy for the entire period of the training. However, the cohort we studied was instructed to remain in their home cities due to the COVID-19 pandemic. The training, therefore, took place online. The Academy has strict training protocols that does not allow for random assignment by experimenters on these "elite group" of public officials. However, these procedures were valid only for on-

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[13] The complete transcript for the training lecture treatment is presented in Table B4 of Appendix B.
[14] The complete transcript for the joint utilitarian and malleability treatment is presented in Table B5 of Appendix B.

site training, therefore, the unique circumstances arising due to the COVID-19 pandemic provided us an opportunity to randomly assign training lectures to them at the individual level. The combinations of Academy's express instructions that the participants may not share or discuss our soft-skills workshop material with their peers, the geographical dispersion of the officers due to the pandemic at the time of the training, the non-shareability of the link, likely reduced treatment contamination. Although, it should be noted it would only mean that our estimates are underestimated.

III. Data and Empirical Strategy

A. *The Data*

The sample consists of all 213 deputy ministers entering service in a single year.[15] The outcome variable data on behavioral games was collected during a Zoom call with everyone under supervision of the Academy in a live session. All the officers participated in 12 behavioral games during the 2-hour soft skills workshop. The administrative data on individual policy makers' characteristics was obtained from the administrative records of the Academy that we used in our balance test on individual characteristics and control variables in our regressions. The pre-treatment blood donations were obtained via a baseline survey, while the written, interview and psychological assessment scores of the participants were obtained from the Federal Public Service Commission (FPSC) of Pakistan that oversees and organizes these assessments.[16] Finally, the outcomes on blood donations from the field were obtained from a prominent blood bank; we worked closely with volunteers requesting blood donations at the bank.[17]

Outcome Variables.— Our first outcome variable is the standard measure of altruism, i.e. response of participants in a "dictator" game. Pioneered by Kahneman et al. (1986), the decision of the "dictator" to voluntarily donate money without clear benefit is widely regarded as a prominent measure for altruism and applied in many studies in economics and psychology

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[15] The year is anonymized on request of the Academy citing legal and political concerns.

[16] The Federal Public Service Commission (FPSC) is a statutory body of the Government of Pakistan, constituted in 1947. It obtains its jurisdiction from the Constitution of Pakistan and its responsibilities include recruiting elite policy advisors and administering their entry examinations and assessments.

[17] An IRB was obtained where the experiment was approved by Lahore School of Evonomics's Ethical Review Board (IRB) who approved the IRB after close coordination and consultation with the Academy officials.

(see Engel, 2011 for a review of this literature).[18] We consider the decision of the dictator as our first measure of altruism and our choice is motivated by the game holding in many real world settings of altruistic behavior (Henrich et al., 2005; Levitt and List, 2007; Kosse et al., 2020).[19] Our setting of implementing the dictator game is also interesting since instead of playing these games with students that have self-selected for the experiment, we administer these games with deputy ministers hence complementing the important new work that movse beyond student populations (see e.g. Cappelen et al., 2015).

Our second measure is another variant of the dictator game – the charity game (Bettinger and Slonim, 2006). Participants are given the option to donate money to UNICEF to buy an effective measles vaccine and were provided information that this vaccination is likely to save lives. However, the money could only be sent at the expense of forgoing some money for themselves. This is similar to many studies that combine the standard dictator game with this variant of a charitable donation decision to assess whether results hold in both instances (see, e.g., Sutter et al., 2019). The outcome variables of behavioral games are normalized between 0 and 1 to make comparisons across games easier. In Appendix B, we also present results for outcome variables standardized to mean zero and standard deviation one.

Finally, we assess prosociality in the field. In collaboration with a volunteer group working for a prominent blood bank in Lahore, we designed and randomized the transcript for volunteers making the telephone calls on behalf of the blood bank to all deputy ministers with an urgent truthful request to donate blood.[20] We measure outcomes for the public servants agreeing to donate blood as well those actually agreeing to set up a definite appointment to donate blood at the blood bank. The phone calls requesting blood donations take place about 2 months following the roll-out of our training lectures and submission of the summary. Using a unique dataset from a COVID-19 survey with the Academy, we also utilize information on the actual blood group of these deputy ministers and randomly assign participants in each treatment arm to a group where we urgently request their exact blood type, while the remaining

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[18] Specifically, the dictator game is a variant of the ultimatum game where strategic concerns are absent as the proposer simply states what the split will be and there is no veto power to affect the proposal on part of the recipient.

[19] Although, Henrich et al. (2005) note that "context matters" and that there is large variation in the exact degree of altruism demonstrated that depends on the prevalent social norms in the society..

[20] The shortage of blood meant that this was truthful information since all blood types were urgently needed since there was a steep fall in blood donations following the COVID-19 pandemic. According to one of the volunteers making the calls: "the blood banks were practically empty".

individuals within each treatment arm are randomly assigned an urgent generic request for blood donation but without explicit mention of the blood type of the deputy ministers.[21]

Likewise, two regular syndicate field trips took place about four months following the training. This involves two separate trips. In the first field trip the policymaker must choose between attending a lecture by a senior bureaucrat or visiting an orphanage. In the second trip, about 6 months following the treatment, the deputy minister must choose between volunteering at impoverished schools at a selected government network of schools or attending a lecture by a senior bureaucrat. The Academy also shared this data which we leverage as field-based measures of altruism or prosociality. Other field-based measures include their choice of a book on empathy in a book lottery elicited at the end of the 2-hour soft skills workshop, the language of social cohesion in social media, and their grades on soft-skills and teamwork assessments. The soft-skills workshop tests on material related to negotiations, leadership, teamwork and cooperation. The teamwork workshop is scored by a panel of senior bureaucrats, policymakers and academics and involves policy responses within a team. For instance, consider the sample scenario question, posed to the deputy ministers: "*The Prime Minister wants you to devote more resources to his security detail, while the Chief Minister wants you to aid in the flood relief efforts. How would you organize your team? What decisions will you take? Please detail the exact steps?*" (FPSC, 2021).

Explanatory Variables.— Our main treatment variables are dummies for the three treatments. U_i and M_i are dummies that switch on if an individual deputy minister is assigned to the stand-alone utilitarian, stand-alone malleability and UM_i joint utilitarian and malleability treatment arms, respectively. We add as control variables all the individual characteristics available from administrative data. These individual level control variables are as follows: written, mathematics, psychological and interview assessment scores in entry examination, income before joining the service, age, years of education and dummies for gender, birth in political capitals, asset ownership, foreign visits and occupational or professional designation.

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[21] Specifically, in the first group, a request is made to the deputy ministers that their blood type is urgently needed, for instance, "Blood for group O positive is urgently needed at the blood bank" (where the minister had O positive blood type), while the second group is requested to donate blood but without mention of the exact blood type of the bureaucrat i.e. a generic request that "blood is urgently needed at the blood bank" is made.

Close cooperation with the Academy and the fact that our workshop was compulsory for the entire cohort implied that we had 100% take-up of our treatments. There was, nevertheless, some attrition in recording of our blood donations outcome variable in the field. That is, when the blood bank called the deputy ministers, requesting for the blood donation, some did not pick up the phone or refused to give an answer on the blood donation request.[22] However, given the prominence and credibility of the blood bank, only 8 out of the 213 did not respond to the call made by the blood bank. Roughly 95% of participants gave definite responses on both the blood donation requests and setting up a definite appointment with the blood bank. We do, however, show even with this small dropout rate that there is no evidence for differential attrition for both agreeing to donate blood or setting up a definite appointment for the blood donation (these results are reported in Table B6 of Appendix B).

C. *Estimation Strategy*

The impact of the two stand-alone utilitarian and malleability training and the joint training can be evaluated by comparing outcomes across groups in a simple regression framework. For each individual-level outcome, the estimation equation is:

$$Y_i = \alpha + \beta U_i + \gamma M_i + \delta U M_i + \boldsymbol{X_i}' \mu + \epsilon_i \tag{1}$$

where Y_i is respective outcome for deputy minister i, U_i is a dummy equal to one if the deputy minister is assigned to the stand-alone utilitarian empathy treatment arm; M_i is a dummy variable equal to one if the deputy minister is assigned to the stand-alone malleability empathy treatment arm; UM_i is a dummy variable equal to one if the deputy minister is assigned to the joint utilitarian and malleability treatment arm; $\boldsymbol{X_i}'$ is a vector of individual-level controls. We cluster standard errors at the individual level since that is our level of randomization. In equation (1), β measures the effect of stand-alone utilitarian treatment; γ the effect of stand-alone malleability treatment; and δ the effect of the joint treatment.

In all tables that follow, we present estimates of equation (1) for a series of outcomes. At the bottom of each panel, we show the mean of dependent variable for the placebo group,

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[22] Most "non-respondents" requested the blood bank to call them back but never picked up the phone again. We report the most conservative estimates excluding these public officials although coding these individuals as "no" increases the sample size and precision of our estimates.

and we present p-values for tests of the hypothesis that the effect of the joint treatment is equal to either of the two stand-alone treatments, or equal to the sum of the two stand-alone treatments (i.e we test for $\beta = \gamma$, $\gamma = \delta$ and $\gamma = \beta + \delta$). We report ordinary least squares (OLS) estimations. The results are qualitatively unchanged with probit or logit estimations for binary outcomes. The results are also unchanged when we add a large number of individual level controls (these include scores on pretreatment written, interview, mathematics and psychological assessment scores, asset ownership, income, age, years of education and dummies for foreign visits, gender, birth in political capitals and professional designation).

IV.   Results

A. *Results from Dictator Games*

Columns (1) and (2) of Table 2 present the estimated effects of our three treatments relative to the placebo group in the classic dictator game. We find that only the stand-alone utilitarian treatment increases altruism. Since we have normalized the outcome variable to be between 0 and 1, we can infer that the utilitarian treatment increases altruism by about 6 percentage points. This is equivalent to about a 12% increase over the placebo mean. The coefficient estimates are similar with no controls and a large number of individual level characteristics added in the regression. Likewise, in Table 2, we also report results for an oft-used variant of the dictator game when donations to UNICEF charity are solicited instead of donations to strangers as in the previous standard dictator game. The effects are even larger and reported in columns (3) and (4) of Table 2: utilitarian treatment is associated with a 20-percentage point increase in altruism scores, or a 33% increase over the placebo mean. Equivalently, the utilitarian treatment increases altruism in dictator and charity games by about 0.3 to 0.5 standard deviation relative to the placebo group. These results are reported in Table B7 of Appendix B where we standardized the outcome variables to mean zero and standard deviation one. For comparison, the effect sizes of our utilitarian training intervention (video lecture and summary of the lecture) are about as large as the effect found from a year-long mentoring program aimed at enhancing "other-regarding behavior" in 7–9 year olds in Germany (Kosse et al., 2020).

Next, we investigate if the deputy ministers that obtain our treatments want to learn more about empathy. In a revealed preference setting we offer to send one of two books — by

post — to each deputy minister at the end of the workshop. The first book is on empathy (*Mindsight: Transform Your Brain with the New Science of Empathy* by Daniel J. Siegel) and the other is our placebo book, a book on basic econometrics (*Mastering Metrics* by Joshua Angrist and Jörn-Steffen Pischke). Figure 1 and Table 2 (Columns 1 and 2) present these results across our randomly assigned groups. We find the group allocated the stand-alone utilitarian treatment is about 20 percentage points more likely to choose the book on empathy relative to the placebo group — about 50% increase over the placebo mean. This suggests that our training induced the utilitarian group to not only respond differentially in dictator games but also become more curious to learn more about empathy.

These results are particularly interesting when we combine them with the scores on a regular soft-skills assessment organized by the Academy at the end of each training program. The workshop assesses these policymakers on soft-skills. This includes policy scenario assessments related to negotiations, leadership, teamwork, and cooperation in public policy making. In Table 3 (column 3 and 4), we observe that the group that received the utilitarian treatment scores about 10 percentage points higher than the placebo group, a 20% increase over the placebo mean. Taken together, the results from Table 3 indicate that our treatment not only increased curiosity to learn more about soft-skills but also likely affected effort to learn these skills as revealed through higher scores in the regular soft-skills assessment.

The question, however, remains whether the results of the dictator games and revealed preference measures map well into real-world altruistic behavior. Both Henrich et al. (2005) and List and Levitt (2007) have noted that several reasons, from culture and environment to self-selection of experimental subjects, make fraught the exercise of extrapolating altruism in behavioral games to real-world behavior. In the next subsection, we provide evidence of empathetic behavior from the field.

B. *Results from the Field*

We leverage unique information on blood groups of the deputy ministers and randomized phone calls to provide results from the field. In collaboration with a prominent blood bank, we randomized the phone calls to the deputy ministers so that half of them (106 participants) were randomly told that their particular blood group was in urgent need, while the other half (107 participants) were just made an urgent request to donate blood but without any

mention that their exact blood group was needed. That is, the first group gets the call "O Positive Blood is urgently needed" (where the deputy minister had the O Positive blood group), whereas the second group gets a generic request that "Blood is urgently needed". These requests for blood donations are made about 1.5 months after the training.

The first two columns of Table 4 report the results on agreement to donate blood, while the latter two columns report results on responses on setting up a definite appointment to donate blood at the bank. The estimates presented in column (1) and column (3) reveal a large effect of the utilitarian treatment: the stand-alone utilitarian group is about 25 percentage points more likely to both agree to donate blood and set up a definite appointment with a blood bank relative to the group that received the placebo training. This is a substantial effect and equivalent to about 80% increase over the placebo mean. These results are also reported as a bar chart in Figure 2: the group assigned stand-alone utilitarian treatment has about 25 percentage points higher blood donations relative to the placebo group on both blood donation variables (Panel A and B). This strongly suggests that results from behavioral games map well to real-life empathic or altruistic behavior in the field. Only the stand-alone utilitarian treatment has a qualitatively and statistically different effect on blood donations relative to placebo group, consistent with the results from dictator games, empathy book choice and soft-skills assessment.

This, however, masks important heterogeneity among those that were randomized into the group that were requested that their exact blood group was in need relative to those that were made a generic request for blood donation. Columns (2) and (4) of Table 4 report estimates on the interaction terms of our three treatments with the randomly assigned status of the blood bank requesting the minister's actual blood type for both blood donation variables. Remarkably, the effect of blood donations seems to be *entirely* explained by the utilitarian group when the blood bank requested that their exact blood type was needed.

These results can be observed most clearly in Figure 3: we observe that the blood donations more than doubled — for the utilitarian group — when their matching blood type was requested (left panel). We, however, do not find any significant difference in blood donations between utilitarian and placebo groups when the generic requests for blood donations were made (right panel). The deputy ministers who were assigned the utilitarian treatment are only willing to donate blood if their exact blood group is requested. These results indicate that utilitarian deputy ministers are "effective altruists"—they respond altruistically only when they

believe that their blood is more likely to be effectively utilized (Singer, 2015; MacAskill, 2019).

Finally, we obtain data from the Academy on their regular "syndicate field trips" that they undertook 4 and 6 months following the treatment. The deputy ministers are given the option by the Academy to either visit a prominent orphanage (*Dar-ul-Aman*) or attend lectures on a specific government program from a "veteran" policy official. These data are collected separately from the research team and unlikely to be affected by experimenter demand. Consistent with the results on blood donations, we find that the group assigned the stand-alone utilitarian treatment is about 20 percentage points more likely to make field visits to the orphanage relative to attending the lecture from the policy official (Table 4, Column 5). This is equivalent to about an 80% increase over the placebo mean. These results are corroborated with a second field trip 6 months after the treatment: the deputy ministers have the choice between volunteering to teach for a week in any impoverished government school that falls under the Progressive Education Network (PEN) or once again choosing to attend a lecture on government programs from a senior public official. We also find that the group assigned the stand-alone utilitarian treatment is about 20 percentage points more likely to volunteer in at the PEN education network's impoverished schools, significantly increasing the rate of volunteering over the placebo mean.

Substantively, these results are interesting for two key reasons: (1) the field visits and volunteering at impoverished schools took place at the end of January, that is, about 4 and 6 months after our trainings, and (2) these data come directly from the Academy and are part of their regular training curriculum, providing an external corroboration of our results.

C. *Impact on Perceived Importance of Emotional Intelligence and Teamwork*

Since deputy ministers undertake different job designations and act as key advisors to top public officials, it is challenging to assess and compare their performance as policy advisors directly. We, however, proxy for their performance and decision-making process in two ways. First, we assess their own perceived importance of Emotional Intelligence in policy-making. Second, we leverage a unique teamwork policy simulation assessment that is used to gauge their performance at the Academy. We also have available a placebo outcome—assessment of quantitative ability—that took place at almost the same time as the teamwork assessment.

Therefore, next, we investigate the impact of our treatment on perceived importance of Emotional Intelligence, regular teamwork and quantitative assessments conducted by the Academy. This is also interesting because these took place 6 months following the intervention. In the first case, deputy ministers were asked to rate the importance of Emotional Intelligence in policy making. Columns 1 and 2 of Table 5, report these results with and without controls. We find that the stand-alone utilitarian treatment individuals give a 0.8 standard deviation higher rating to importance of emotional intelligence in policy making. This is equivalent to a one-point increase on a 5-point scale and suggests that our training had a large and potentially long-run impact on attitudes of the policymakers with regard to the importance of soft skills in policy making.

Our results on skills pertaining to effective teamwork are also likely to hold in the field. Deming and Weidmann (2021) has shown in important new work that teamwork is a key soft-skill that explains several puzzles in the labor market. We utilized a graded one day-long teamwork workshop involving policy scenarios simulating, for instance, a potential national emergency and how the deputy minister will organize her team. During the simulation, deputy ministers are assessed by a panel of experts. In this teamwork workshop, ministers are assigned to groups of four subordinates and given concrete scenarios. A typical scenario question is as follows:

> "*The Prime Minister wants you to devote more resources to his security detail, while the Chief Minister wants you to aid in the flood relief efforts. How would you organize your team? What decisions will you take? Please detail the exact steps?*" (FSPC, 2021).

The responses are scored by a panel of experts including former top officials (former supreme court judges, prominent academics, former senior deputy ministers) and the assessment is high-stakes since it determines their promotion and transfers. Columns 3 and 4 of Table 5 present these results: we observe that stand-alone utilitarian groups have about 0.6 standard deviation higher scores in their teamwork policy assessments relative to the placebo group, while we find no evidence of malleability treatment impacting teamwork assessment. Reassuringly, we also find no effect of our treatments on scores of regular quantitative

assessment that also took place around the same time. This serves as an important placebo check since nothing in our treatment emphasized quantitative skills.[23] These results strongly suggest that the utilitarian treatment has a real impact on soft skills even after 6 months following the treatment.

D. *Impact on Social Media Feeds*

Several influential studies in psychology have argued that ingroup language of "us versus them" and "we versus I" are key determinants of social cohesion and use of such language is highly transmissible and perpetuate discrimination (see e.g. the classic study by Maass et al. 1989). Recent work also finds that social media messages of a country's thought leaders can affect the beliefs and knowledge of their followers (Atlas et al., 2019). In this subsection, we examine the impacts of our treatments on use of language in social media. Out of the 213 deputy ministers, we were able to match 98 of them to their social media feeds — using their full name and file photos — importantly, prior to the onset of the training program.[24] The ministers are evenly spread across our treatment groups with 20 in Utilitarian, 30 in malleability, 20 in joint and 28 in the placebo group. Broadly, we find language indicating social cohesion increases in the utilitarian group, while we observe no impact of malleability or joint treatments on language pertaining to social cohesion. In particular, we find that our utilitarian treatment impacted the use of "we" relative to "I" and "us" relative to "them". Figure 4 reports these results: we observe that the utilitarian group is twice as likely to use "we" relative to "I" and more than twice as likely to use "us" relative to "them" in their post-treatment social media posts 5 months following the intervention.

In Table B10 of Appendix B, we also present these results in regression-table-form with controls and standardized to mean zero standard deviation of one. Considering the sample size, the results are unsurprisingly imprecise but we find largely consistent evidence: the utilitarian treatment increases the use of "we versus I" by about 0.5 standard deviations and use of "us versus them" by about a full standard deviation. These results are suggestive of a change in the

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[23] The quantitative assessment is also called a research methods assessment and was recently introduced in 2017. This tests policymakers in basic hypothesis testing and simple regression framework with applications to policy questions.

[24] These are deputy minister's feeds from Facebook, which is the most prominent social media platform in Pakistan.

use of language associated with social cohesion for our stand-alone utilitarian group. That is, the individuals assigned the stand-alone utilitarian treatment not only increase their altruistic behavior by being more likely to donate blood, volunteer and visit orphanages but also use language that displays higher regard towards others on their social media feeds months after our intervention.

E. *Exploratory Analysis of Mechanisms*

The results so far show that utilitarian treatment boosts altruism, teamwork, perceived importance of emotional intelligence and outcomes related related to successful mentalizing relevant to thinking of others. This subsection contains evidence that the utilitarian treatment also increases other soft skills measured using the tools of experimental economics, namely cooperative decision-making, coordination, and theory of mind. Table 6 presents estimates of the impact of our treatment in cooperation, coordination and theory of mind games (see Sutter et al., 2019 for a review).

In the cooperation game, a decision maker must decide how much of an endowment to transfer to the other participant. The transferred quantity will be doubled and the other participant will receive this doubled quantity. What is not transferred remains in the decision maker's possession and is not doubled. At the same time, the other participant simultaneously makes the same decisions. This game is intended to reflect real-world situations where people must cooperate to achieve higher joint surplus.

In the coordination game, the person chooses between two options. If the decision maker and the other participant both choose one of the options, they will both receive higher joint surplus, which is split equally. However, there is an incentive to deviate, which is also the safe option that guarantees a non-zero outcome for the decision maker. This game is intended to reflect real-world situations where people must coordinate in teams. Several studies suggest related games map well into behavior in real-world teams (Grossman and Baldassarri 2012; Barr and Serneels 2009).

In Table 6's Columns 1 and 2, we observe individuals receiving the stand-alone utilitarian treatment perform better in the cooperative decision-making behavioral game. Specifically, they score 14 percentage points higher in this game than the placebo group.

Likewise, in Columns (3) and (4), we find that these public officials also perform better in the coordination game: the group receiving stand-alone utilitarian treatment have about 7 percentage points higher scores in the Nash equilibrium coordination game. Equivalently, the deputy ministers assigned the utilitarian treatment arm score 0.4 of a standard deviation higher in decision-making and coordination.[25] Importantly, this suggests that cooperation and coordination, rather than simply redistributive preferences, drive the behavioral changes. This is relevant since high-skilled, "cognitive" occupations are increasingly valuing soft skills surrounding teamwork to enhance productivity (Deming, 2017).

Human interaction also requires a capacity that psychologists call theory of mind—the ability to attribute mental states to others based on their behavior, or more colloquially to "put oneself into another's shoes". This is why in the next game, we estimate the decision-maker's theory of mind with the guessing game. In this game, each decision-maker in a group submits a number between 0 and 100. The average of the numbers, divided in half, is the target number. The decision-maker whose guess is closest to the target number wins (Nagel 1995). This is intuitively similar to a rock-paper-scissors game where players must mentalize and predict other's actions.

The results of the guessing decision-making game are reported in Columns 5 and 6 of Table 6. We find that utilitarian treatment raises the probability of being the most accurate guesser by about 10 percentage points. That is, 20% of those in the utilitarian treatment won the guessing game, which is significantly higher than about 12% in the malleability and joint treatment, and much higher than the 9% in the placebo treatment.[26] This suggests our treatment was successful in increasing altruism through the theory of mind. These results are also consistent with successful mentalizing as in the case of increased blood donations when the decision-makers were requested their exact blood type.

Honest public officials are also likely important for effective governance. The final game measures lying: each player rolls a 6-sided dice and is asked to report the outcome of the roll, but the player who reports a higher outcome also receives a higher payoff. There is an incentive to lie rather than truthfully revealing the die roll. That is, the public officials have the option of winning dishonestly by misreporting (see Fischbacher, et al., 2013; Gneezy, et

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[25] The standardized equivalent to Table 6 where dependent variables are standardized to mean zero and standard deviation 1 can be found in Table B8 of Appendix B.

[26] 9% is the mean dependent variable in Columns 5 and 6. Adding the coefficient on the utilitarian treatment yields 20%. Adding the other treatment coefficients with the placebo yields 12%.

al., 2018; Barfort et al. 2019). Figure 5 presents the results of the lying game. We find, remarkably, that the utilitarian group is significantly less likely to lie in the dice game relative to the placebo group. Interestingly, the stand-alone utilitarian group average is extremely close to 3.5 which is what would be obtained if everyone honestly revealed their truthful die-roll. These results are also consistent with a mechanism of effective altruism - in particular - through the lens of homo kantesis, where the utilitarian group may be asking "is this decision best for society if everyone were to do it?" (Alger and Weibull, 2013).

While we hypothesize that successful mentalizing of others to be a likely mechanism for our key results on effective altruism, we investigate and rule out alternative channels such as redistributive preferences or competitiveness. Six other games provide evidence against alternative mechanisms that may explain our findings. For instance, the utilitarian treated group may have become more competitive and they donate blood as a way to compete with their peers. This would be consistent with the fact that the utilitarian training lecture emphasized that showing empathy is a utility maximizing response. If that were the case, we should see blood donations increasing regardless of their explicit blood type being told. Alternatively, one could reason that the utilitarian treatment made the public officials more patient or trusting or redistributive and this is what explains the result in altruism games and blood donations in the field. Nevertheless, we do not find much evidence of this and many other similar alternative mechanisms. Table 7 reports these results.[27] We find no effect of any of our treatments on competitiveness, patience, perseverance, redistribution, risk and trust games (Berg et al., 1995; Fisman et al., 2007; Barling and Fishbacher, 2012; Dohmen et al., 2018; Bašić et al., 2020; Falk et al., 2020).

This exploratory analysis of mechanisms is also summarized in Figure 6 where we depict the estimated standardized (mean zero standard deviation one) stand-alone utilitarian treatment effects and 95 percent confidence intervals on coordination, cooperation, honesty, guessing, competitiveness, patience, perseverance, redistribution, risk aversion and trust games. The thing that stands out in this picture is that coordination, perspective-taking and honesty are likely to be a common mechanism responsible for the treatment effects we estimate, while changes in patience, perseverance, redistribution, risk preferences or trust are unlikely to be driving the results. The results, therefore, paint a consistent picture that treated deputy

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[27] The null results are essentially identical if we standardize the dependent variable instead of normalizing it. See Table B9 in Appendix B for these results.

ministers are likely "effective altruists" that is they not only donate blood when it is most likely to be utilized but also have improved theory of mind, better coordination and cooperation as measured in strategic dilemmas.

F. *Discussion*

The framework of self-image models from Benabou and Tirole (2011) put the utilitarian and malleability treatment in contrast. A typical model states that: $U(a) = (v + y)a + \mu E(x \mid a)$, where v is prosocial identity, y is extrinsic payoffs, and $E(x \mid a)$ the perception of prosocial identity. The first term captures intrinsic motivation, e.g., hardwired altruism. The utilitarian treatment trains altruism, so it may increase the intrinsic motivation to act prosocially. The other motive that can trigger prosocial behaviors is extrinsic motivation. The malleability training is likely to break the updating of perceptions of prosocial identity because prosocial identity is malleable. On net, the utility from acting prosocially can decline. Indeed, in Appendix Table B11, we find that deputy ministers trained with malleability of the self decrease their rating on the importance of prosocial traits. Deputy ministers trained with both utilitarian and malleability treatments are unaffected, perhaps in part because the utilitarian treatment emphasized private benefits of empathy, i.e. y.

This framework suggests that when both utilitarian and malleability treatments are implemented jointly, people may have greater incentive to become empathetic because of the benefits of empathy, but they may *also* reduce the value of being empathetic on any given decision since the decision does not affect perceptions of prosocial identity. We interpret this as a reduction of μ parameter within the self-image framework, that is the deputy ministers are putting less weight on updating perceptions upon taking actions. As a result, the joint treatment may have qualitatively different effects than would be suggested by a reduced form analysis of the two treatments considered separately.

V. Robustness

Balance. — Earlier, we observed that the sample is balanced across a host of individual characteristics: income, age, years of education, gender, birth in political capitals, asset ownership, foreign visits. It is important to emphasize that the large effects we observe are also unlikely to result from lack of balance in altruism or some ability of the deputy ministers. The rich set of outcome variables data gives us access to several pre-treatment outcomes including proxies for baseline altruism. For instance, baseline blood donations are balanced across the treatments, so are psychological, written, mathematics and interview assessment scores — all indicating that the candidates are balanced in underlying ability. Important to note is the balance on scores on psychological assessments that explicitly attempts to screen deputy ministers with low levels of Prosociality and baseline blood donations.

Sample Size and Statistical Power. — The focus on deputy ministers that make high-impact policy decisions allows us to study an elite group of high-stake decision-makers who can potentially impact long-run economic development. Nevertheless, the selective nature of these decision-makers indicate that they are by design few in number. Therefore, our sample is limited to about 200 deputy ministers, which raise concerns about lack of statistical power. However, our power calculation with statistical power 80% and significance level 5% reveals that even with 50 individuals per cluster, the individual level randomization allows us to detect a minimum detectable effect equivalent to a change of 0.27 standard deviations. Fortunately, our documented effect sizes are about twice as large as this, providing us sufficient power to detect the effects with our sample (see for instance the standardized results of dictator and charity game in Table B7 of Appendix B). Nevertheless, Imbens and Rubin (2015) recommend — in small sample randomized trials — to conduct randomization inference where the econometrician scrambles the data, re-assigning treatments and compare the distribution of placebo estimates with the true estimate from the experiment. We report in Table B12 of Appendix B the corresponding p-values with 1000 iterations of this process.[28] Even though the p-values slightly increase, the treatment effects are still statistically significant at conventional levels. These results strongly suggest that idiosyncratic small sample bias is unlikely to explain our results.

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[28]*ritest* in Stata is implemented to compute p-values corresponding to the permutation inference. The results are robust to choosing different number of iterations.

External Validity. — As List (2020) notes, "all results are externally valid to some setting, and no result will be externally valid to all settings." Therefore, we follow the List (2020)'s SANS (*Selection-Attrition-Naturalness-Scaling*) conditions in our discussion of generalizability of our results. First, in terms of selection, our sample consists of all 213 elite policymakers that entered service in Pakistan via competitive examinations in an anonymized year. In behavioral games our compliance is 100% given our close cooperation with the Academy, while in blood donations, volunteering, orphanage visits we still have close to 90% compliance given the credibility of prominent blood bank soliciting calls and the Academy organizing the field visits. Considering the naturalness of the setting, time frame and choice task, we obtain natural measures such as blood donations. The deputy ministers perform several natural tasks in the field especially blood donations, teamwork assessment, volunteering and orphanage visits. Finally, in terms of scaling our intervention to increase effective altruism in other settings, the intervention is cheap to deliver and may be particularly useful for developing countries who face strict resource constraints. The soft-skills training is delivered online so may also be scaled to other high-stake decision makers such as judges and CEOs in several developing countries. We, however, view these results as a WAVE1 insight, in the nomenclature of List (2020), replications need to be completed to understand if the effect sizes can be applied to other general populations as well as high-stake decision makers in other contexts.

Multiple Hypothesis Testing. — Another key empirical issue is that we are testing multiple hypotheses. The elite public officials played 12 games and were assigned to three treatment arms, so we conducted 36 hypothesis tests. Under the assumption that none of the treatments have any effect on any outcome (all null hypotheses are true), and that the outcomes are independent, then the probability of one or more false rejections when using a critical value of 0.05 is $1-0.95^{36} = 85\%$. As a result, in order to reduce the likelihood of these false rejections, we adjust for the fact that we are testing for multiple hypotheses. Following the literature, we use sharpened False Discovery Rate (FDR) q-values suggested by Anderson et al., 2008 (see for instance Heckman et al., 2018 for an application). These sharpened q-values are presented in square brackets in Table B13 where we also show standard p-values from our regressions in parentheses for comparison. Similar results are found when we employ List el al., (2019) familywise error rate correction (FWER) that uses a bootstrapping approach to incorporate the point dependence structure of different treatments and also allows p-values to

be correlated while adjusting for multiple hypotheses (List et al., 2019). Our results remain robust at conventional significance levels.

Experimental Demand. — It is also unlikely that experimental demand drives our results i.e., deputy ministers in the utilitarian treatment are behaving in a way they feel they are expected to by the experimenter. This is due to several reasons. First, the treatment group only responded to blood bank donation requests when their exact blood type was requested. Second, malleability also emphasized empathy, and experimenter demand effects would plausibly also affect those treatment groups as well. Third, enhanced theory of mind for the utilitarian group is challenging to explain through experimenter demand since it is arguably a difficult task. Finally, a number of high-stakes[29] administrative assessment scores including soft-skills and teamwork assessments were conducted separately from the research team as part of regular coursework for the Academy.[30] Taken together, the measurements and patterns of data in our experiment make experimenter demand unlikely, if not implausible. Finally, we found strong evidence robust (to multiple hypothesis testing, experimenter demand, small samples, and lack of balance) on utilitarian treatment impact on prosocial behavior, in precisely the skill sets associated with the 21st century economy (teamwork, coordination, cooperation, theory of mind).

VI. Conclusion

We found that training high-stake decision makers in different schools of thought to cultivate prosociality yielded significant impacts from training in the utility of empathy. Soft-skills have been formally modeled to reduce coordination costs so that teams, organizations, and society work together more effectively. We provide causal evidence on the impacts of training effective altruism on soft-skills of deputy ministers' teamwork and coordination, as well as theory of mind (mentalizing) that is critical in models of soft skills.

Laboratory measures of altruism, charitable donations, cooperation, coordination, honesty and theory of mind in strategic dilemmas were impacted. The effects are persistent over the next six months. Treated ministers doubled their blood donations in response to blood

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[29] These assessments are extremely high stakes since they determine promotion and transfers of the deputy ministers.

[30] We also observe no impact of the malleability treatment on prosocial behavior which is also inconsistent with experimental demand explaining our results.

banks—but only when the specific blood type matching the individual was requested. Orphanage visits and volunteering in impoverished schools also increased. Test scores on soft-skills and independent assessments of teamwork and group-decision making both increased up to 0.8 standard deviation. Training effective altruism has a similar effect size on prosocial behavior (0.4-0.6 standard deviation) as a one-year mentoring program of elementary school children.

Much attention has focused on childhood interventions, though some work on workplace-based programs that teach character skills have made important strides, no randomized control trial exists to train prosociality in different schools of thought in adults (Kautz et al., 2014). We show that empathy can be enhanced among even adults, which is consistent with evidence that the adult brain continues to be plastic (Duffau, 2014) and evidence that cognitive behavioral therapy impacted outcomes of adults in Liberia (Blattman et al., 2017).

The estimated effects on perspective-taking from a recent one year 3 hours per week curriculum found an effect size of 0.3 standard deviations for Reading the Eyes in the Mind Test for school children (Alan et al., 2021). In this test, subjects are asked to guess the emotion from a pair of eyes. The guessing game (Nagel, 1995) is a strategic dilemma and also measures the ability to take the perspective of others. The estimated effect in the guessing game in our intervention is about twice as large, i.e. 0.6 standard deviations. Language used on social media is also impacted.

The intervention is time-efficient as well as cost-effective and can be delivered online. It involves negligible opportunity cost of time compared to any known randomized control trial on the formation of prosociality. The principles of effective altruism may be an organizing theory for effective cohesion policies amid fragility, corruption, conflict, and violence. Future research could test additional schools of thought on normative ethics besides the two in our study.

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Figures and Tables

Figure 1: Book on Empathy
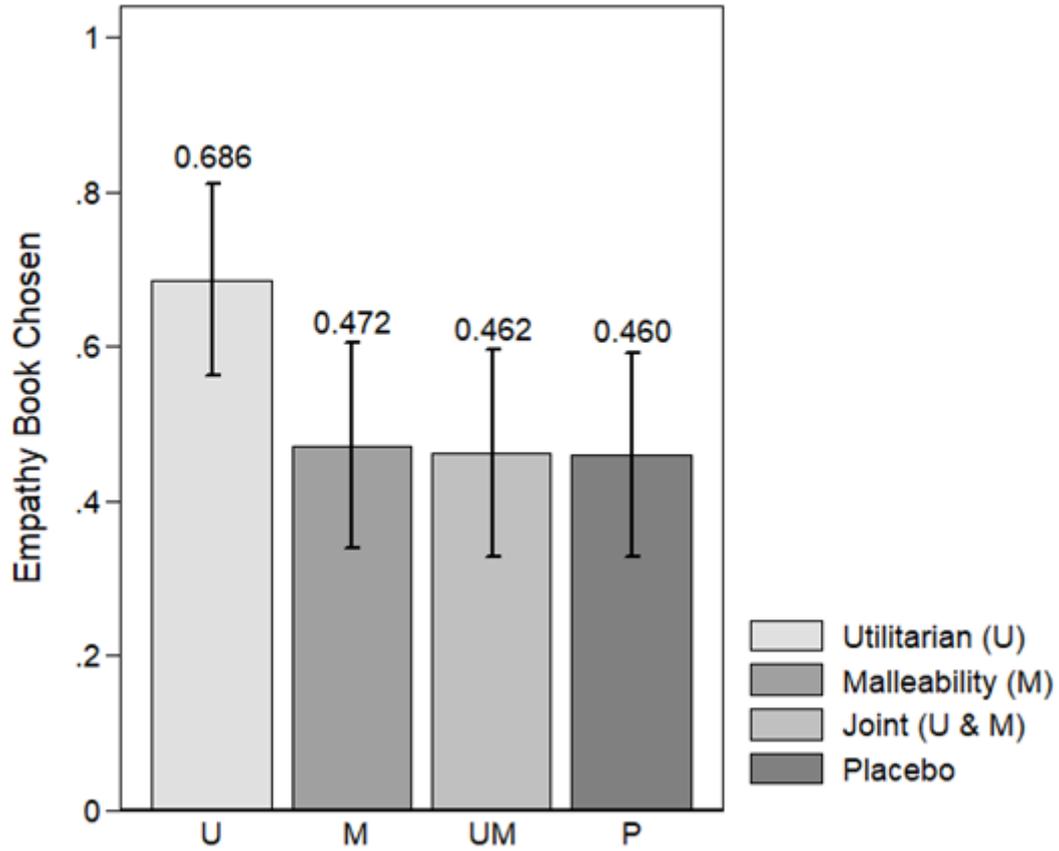
Note: The figure provides averages for the four randomly assigned groups along with the associated confidence intervals. Each bar reports the average fraction of people who selected the book on empathy according to the randomly assigned group.

Figure 2: Impact on Blood Donations

Panel A: Agreement to Donate Blood
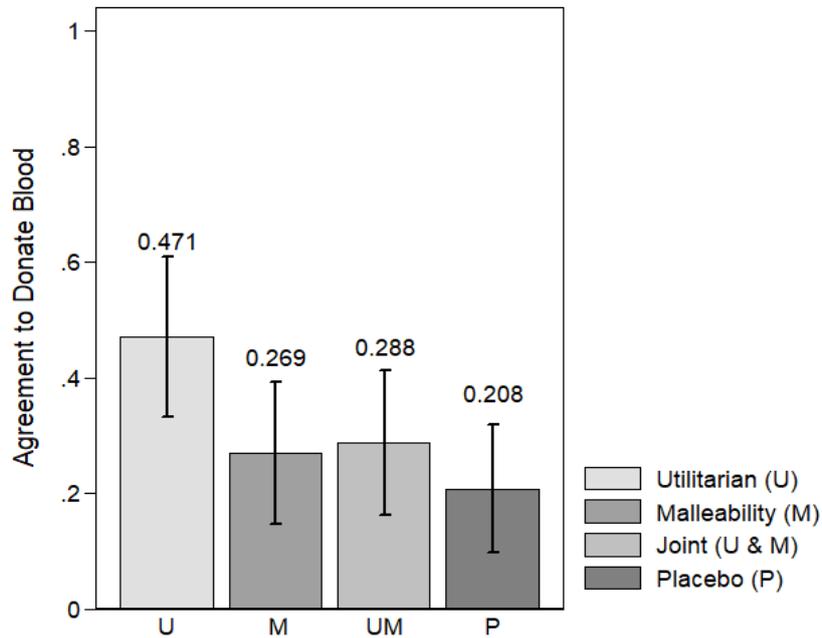
Panel B: Appointment to Donate Blood
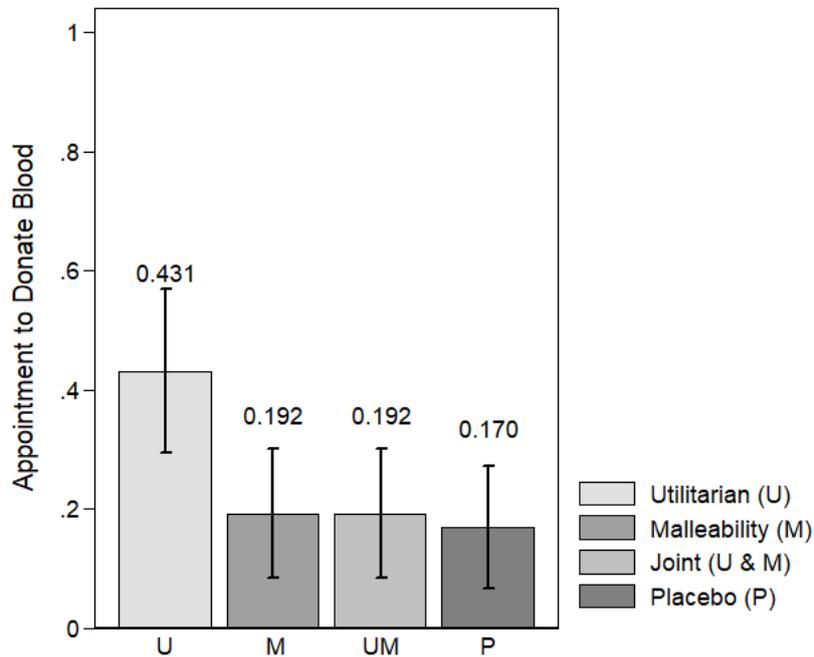
Note: The figure provides averages for the four randomly assigned groups along with the associated confidence intervals. Panel A provides averages for answer on the question of agreement to donate blood where one is yes, and no is zero. Likewise, Panel B provides averages for answer on setting an appointment with the blood bank to donate blood where yes is coded as one and no as zero.

Figure 3: Impact on Blood Donations by specific versus generic request
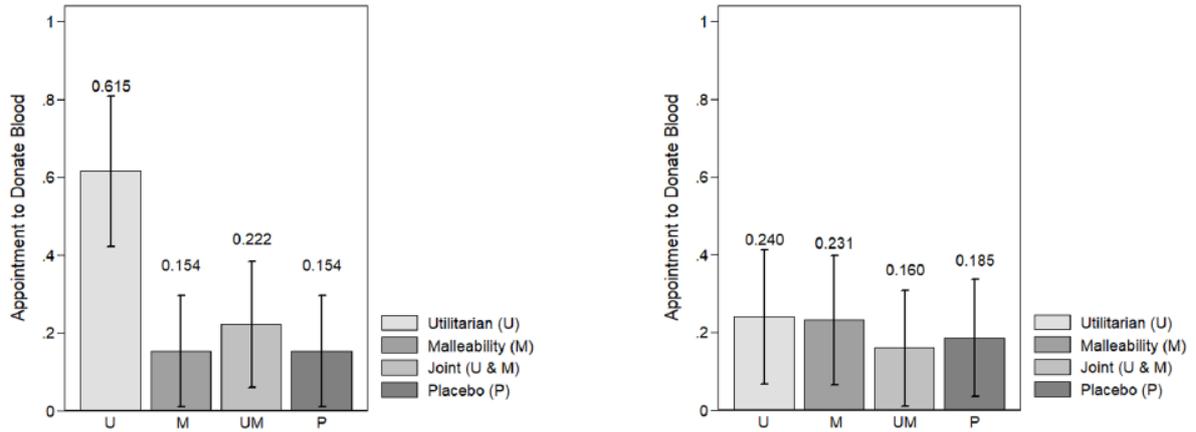
Note: The figure above provides averages for the four randomly assigned groups along with the associated confidence intervals. The figure on the left presents results on urgent truthful requests to donate blood with specific matching blood type of the individual, i.e., "O Positive Blood is urgently needed" (where the individual had the O Positive blood group). The figure on the right report results from a generic request to donate blood i.e. "Blood is urgently needed". These requests for blood donations were made 1.5 months after the intervention by volunteers at a prominent blood bank.

Figure 4: Language Use in Social Media

Panel A: Effect on fraction of "we vs I"
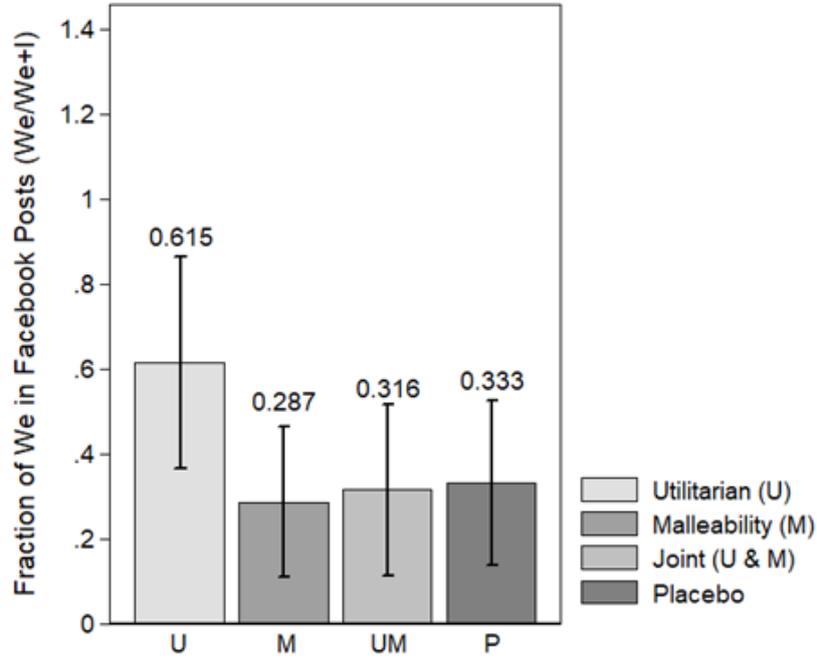
Panel B: Effect on fraction of "us versus them"
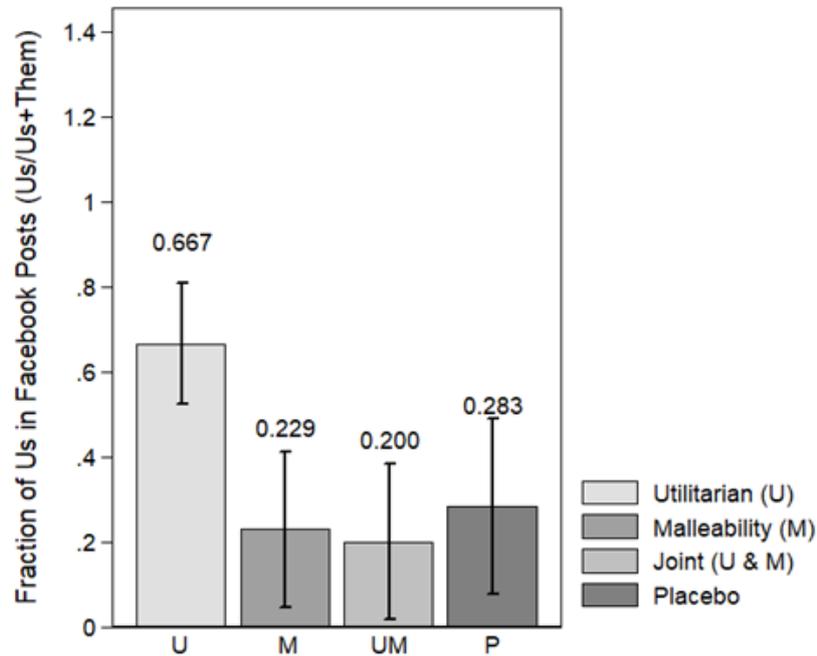
Note: All post treatment social media posts are considered up till 5 months following the interventions. Corresponding table-form representation of coefficient estimates with controls is presented in Appendix B.

Figure 5: **Effect on Dice Game**
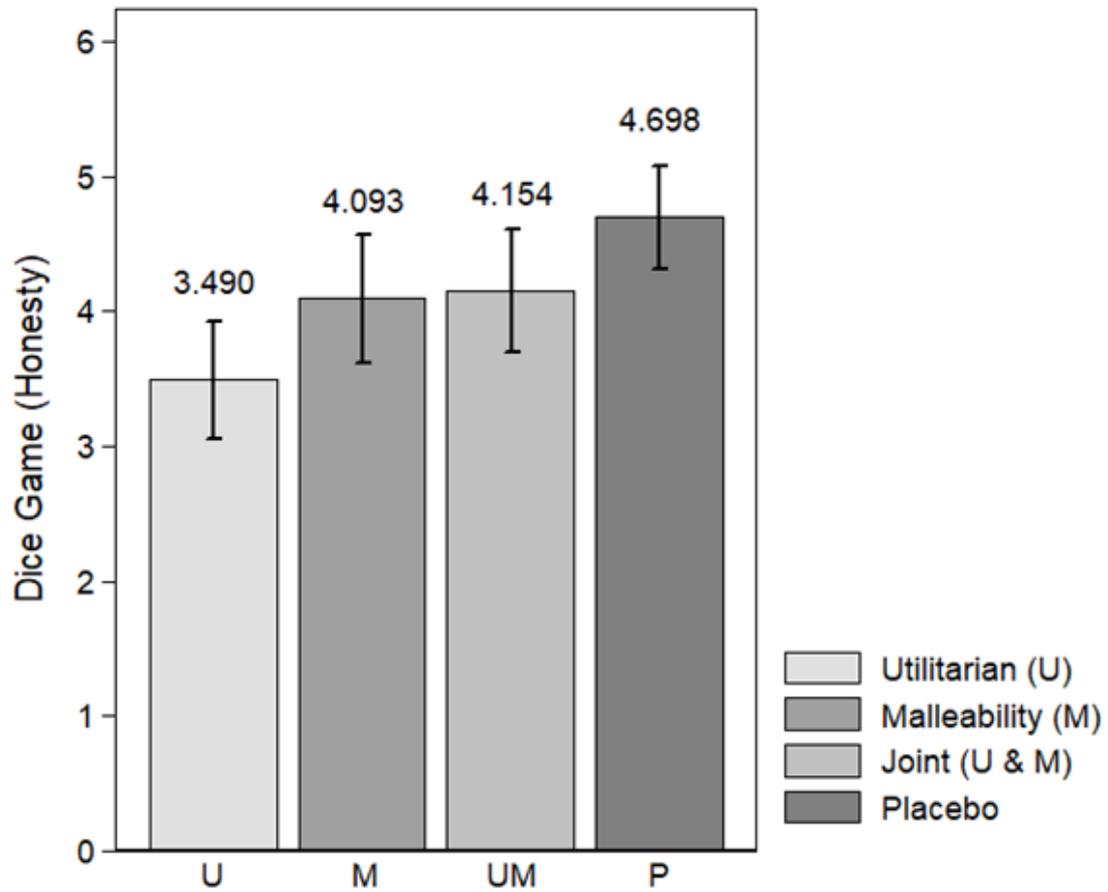
*Note:* The figure provides averages for the four randomly assigned groups along with the associated confidence intervals. Each bar reports the average in the dice game. Higher levels represent more lying or dishonesty.

Figure 6: **Exploration of Mechanisms**

Potential Mechanisms

Point Estimates with 95% CIs (Stand-alone Utilitarian Treatment)
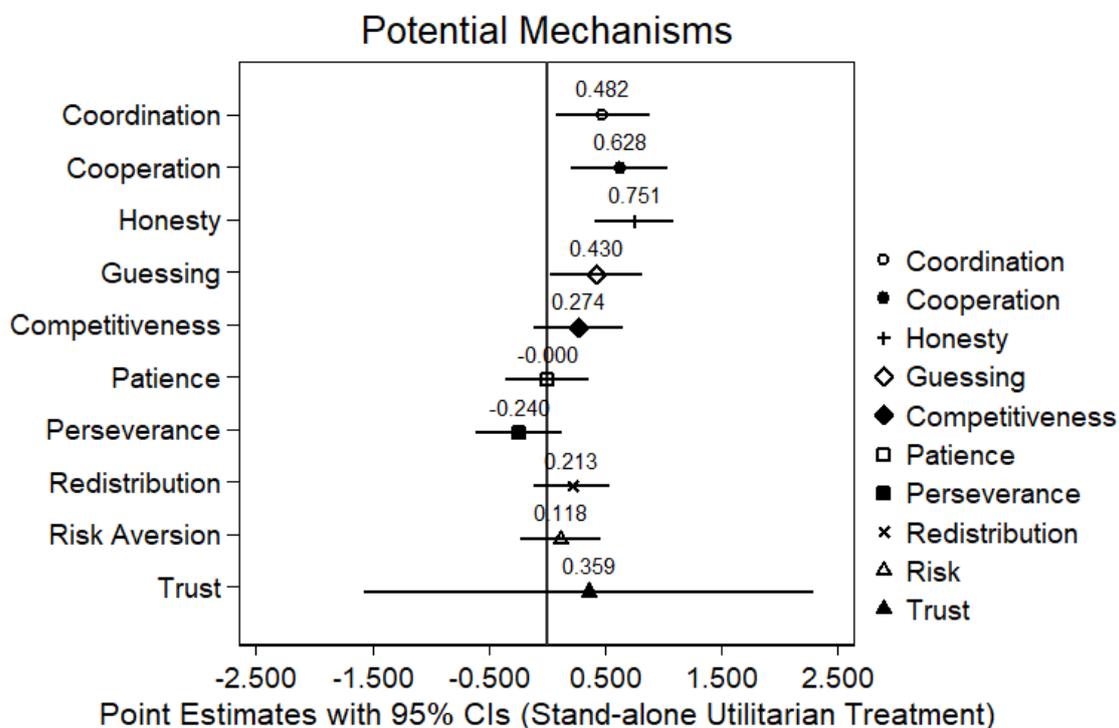
Notes: The figure depicts the stand-alone utilitarian treatment effects and their 95% confidence intervals. Confidence intervals are based on standard errors clustered at the individual level (the unit of randomization). The vertical line indicates a treatment effect of zero. Dependent variables are standardized to mean zero and standard deviation one. Identical controls as in baseline specification are also always added.

Table 1: Baseline Characteristics, by Treatment Group

	Utilitarianism (U)	Malleability (M)	Utilitarianism & Malleability (UM)	Placebo (P)	U=P	M=P	UM=P	UM=U UM=M
					Balance tests: p-value for test that:			
Baseline Blood Donations	0.528	0.593	0.472	0.453	0.782	0.171	0.325	0.440
	[0.504]	[0.496]	[0.504]	[0.503]				0.151
Psychological Assessment Scores	7.302	7.167	7.283	7.302	0.768	0.379	0.768	0.999
	[1.085]	[1.240]	[0.968]	[1.137]				0.475
Writing Assessment Scores	653.802	651.480	660.401	656.735	0.640	0.276	0.208	0.291
	[36.224]	[28.718]	[36.377]	[29.999]				0.152
Interview Assessment Scores	132.788	129.360	131.623	130.600	0.475	0.464	0.833	0.758
	[24.272]	[18.591]	[21.760]	[16.800]				0.566
Math Assessment Scores	7.189	7.259	7.019	7.415	0.817	0.883	0.184	0.502
	[1.039]	[1.262]	[1.152]	[1.151]				0.364
Female	0.415	0.370	0.472	0.415	0.785	0.620	0.533	0.845
	[0.498]	[0.487]	[0.504]	[0.498]				0.507
Birth in Political Capital	0.359	0.352	0.283	0.302	0.340	0.614	0.285	0.217
	[0.484]	[0.482]	[0.455]	[0.464]				0.336
Asset Ownership	0.283	0.315	0.245	0.321	0.882	0.659	0.234	0.524
	[0.455]	[0.469]	[0.434]	[0.471]				0.318
Income	35273.774	40101.852	27849.057	33698.113	0.781	0.156	0.068*	0.198
	[29089.252]	[30944.774]	[25649.559]	[24263.446]				0.048**
Age	26.491	29.963	26.660	26.981	0.203	0.321	0.722	0.575
	[2.120]	[2.083]	[2.377]	[2.406]				0.411
Years of Education	14.793	15.148	15.038	15.321	0.061*	0.396	0.568	0.425
	[0.988]	[0.998]	[1.143]	[1.221]				0.383
Visited Foreign Country	0.208	0.222	0.245	0.226	0.722	0.756	0.690	0.645
	[0.409]	[0.420]	[0.434]	[0.423]				0.956
Occupational Group Designation								
Administrative Service Chiefs	0.226	0.074	0.208	0.170	0.200	0.031**	0.390	0.795
	[0.423]	[0.264]	[0.409]	[0.379]				0.066*
Police Chiefs	0.132	0.111	0.057	0.094	0.348	0.723	0.239	0.196
	[0.342]	[0.317]	[0.233]	[0.295]				0.348
Federal Revenue Chiefs	0.189	0.259	0.226	0.208	0.519	0.431	0.908	0.642
	[0.395]	[0.442]	[0.423]	[0.409]				0.685
Foreign Service Chiefs	0.038	0.074	0.151	0.076	0.159	0.751	0.045**	0.037**
	[0.192]	[0.264]	[0.361]	[0.267]				0.154
All Other Occupational Groups	0.302	0.352	0.208	0.359	0.953	0.391	0.076*	0.293
	[0.464]	[0.482]	[0.469]	[0.484]				0.107
Number of candidates (total=213)	53	54	53	53				

Notes: Individual averages. Standard deviations in brackets. p-values corresponding to F-statistics are presented in italics. *Significant at the 10 percent level, ** at the 5 percent level.

Table 2: Impact of Treatments on Altruism – Dictator Games - Normalized

	Altruism Game		Charity Game	
	(1)	(2)	(3)	(4)
Stand-alone Utilitarian (*U*)	0.064***	0.061***	0.178**	0.215**
	(0.023)	(0.021)	(0.088)	(0.091)
Stand-alone Malleability (*M*)	-0.020	-0.021	-0.011	-0.013
	(0.020)	(0.019)	(0.096)	(0.093)
Joint Treatment (*UM*)	-0.006	-0.018	-0.007	-0.046
	(0.010)	(0.012)	(0.096)	(0.093)
Individual Controls	No	Yes	No	Yes
Observations	213	213	213	213
Mean of dep. var. (placebo)	0.498	0.498	0.604	0.604
p-value (test: *U = UM*)	0.004**	0.001**	0.035**	0.004**
p-value (test: *M = UM*)	0.485	0.849	0.967	0.716
p-value (test: *U = M*)	0.004**	0.002**	0.032**	0.012**
p-value (test: U*M = U + M*)	0.107	0.047**	0.180	0.056

Robust standard errors clustered at individual level appear in brackets. The dependent variables are normalized to an index between 0 and 1. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 3: Impact of Treatments on Book Choice and Soft Skills Scores

	Empathy Book Choice		Soft-Skills Scores	
	(1)	(2)	(3)	(4)
Stand-alone Utilitarian (*U*)	0.226**	0.232**	0.104***	0.116***
	(0.092)	(0.098)	(0.025)	(0.025)
Stand-alone Malleability (*M*)	0.030	0.040	0.005	0.003
	(0.096)	(0.097)	(0.026)	(0.025)
Joint Treatment (*UM*)	-0.017	-0.066	-0.004	-0.001
	(0.096)	(0.097)	(0.027)	(0.026)
Individual Controls	No	Yes	No	Yes
Observations	213	213	213	213
Mean of dep. var. (placebo)	0.460	0.460	0.541	0.541
p-value (test: *U = UM*)	0.009**	0.001**	0.000**	0.000**
p-value (test: *M = UM*)	0.622	0.264	0.755	0.882
p-value (test: *U = M*)	0.036**	0.042**	0.000**	0.000**
p-value (test: U*M = U + M*)	0.041**	0.013**	0.003**	0.002**

Robust standard errors clustered at individual level appear in brackets. The dependent variables are normalized to an index between 0 and 1. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 4: Results from the Field - Blood Donations, Orphanage Visits and Volunteering

| | Blood Donations | | | | | |
| | Agreement to Donate | | Appointment to Donate | | Orphanage Visit | Volunteering in Schools |
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (U)	0.263***	0.062	0.284***	0.104	0.217**	0.226**
	(0.095)	(0.137)	(0.087)	(0.125)	(0.097)	(0.089)
Stand-alone Malleability (M)	0.081	0.063	0.041	0.062	0.003	0.104
	(0.086)	(0.129)	(0.077)	(0.127)	(0.091)	(0.086)
Joint Treatment (UM)	0.090	0.145	0.042	-0.026	0.052	0.091
	(0.087)	(0.127)	(0.075)	(0.105)	(0.090)	(0.085)
Blood Group Told (T)		-0.069		-0.059		
		(0.147)		(0.143)		
Blood Group Told X Stand-alone Utilitarian (U X T)		0.397**		0.355**		
		(0.192)		(0.173)		
Blood Group Told X Stand-alone Malleability (M X T)		0.040		-0.041		
		(0.183)		(0.169)		
Blood Group Told X Joint Treatment (UM X T)		-0.093		0.137		
		(0.175)		(0.153)		
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	205	205	205	205	213	213
Mean of dep. var. (placebo)	0.192	0.192	0.154	0.154	0.264	0.358
p-value (test: $U = UM$)	0.081	0.572	0.009**	0.302	0.087*	0.145
p-value (test: $M = UM$)	0.926	0.545	0.991	0.473	0.584	0.881
p-value (test: $U = M$)	0.058	0.994	0.008**	0.754	0.025**	0.185
p-value (test: $UM = U + M$)	0.058	0.922	0.020**	0.294	0.208	0.064*

Robust standard errors clustered at individual level appear in brackets. The dependent variable in columns (1) and (2) are dummies that switch on for agreement to donate blood. The dependent variable in columns (3) and (4) are dummies for setting up an actual appointment for blood donation at a local blood bank. The dependent variable in columns (4) and (5) are dummies for choosing to visit orphanage and volunteering at impoverished schools relative to choice of attending a lecture by a senior bureaucrat. U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Importance of Emotional Intelligence and Teamwork - Standardized

	Importance of Emotional Intelligence		Teamwork Assessments		Quantitative Assessment	
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (U)	0.823***	0.840***	0.593***	0.615***	0.064	0.106
	(0.193)	(0.199)	(0.181)	(0.191)	(0.209)	(0.211)
Stand-alone Malleability (M)	0.189	0.159	-0.187	-0.197	-0.098	-0.078
	(0.204)	(0.217)	(0.180)	(0.191)	(0.189)	(0.190)
Joint Treatment (UM)	0.170	0.255	-0.334	-0.366	0.050	0.062
	(0.214)	(0.224)	(0.175)	(0.199)	(0.190)	(0.214)
Individual Controls	No	Yes	No	Yes	No	Yes
Observations	199	199	199	199	199	199
p-value (test: $U = UM$)	0.000***	0.002***	0.000***	0.000***	0.938	0.825
p-value (test: $M = UM$)	0.908	0.615	0.436	0.403	0.496	0.552
p-value (test: $U = M$)	0.000***	0.001***	0.000***	0.000***	0.453	0.403
p-value (test: $UM = U + M$)	0.001***	0.007***	0.007**	0.007**	0.764	0.906

Robust standard errors clustered at individual level appear in brackets. All dependent variables are standardized to mean 0 and standard deviation of 1. Dependent variable in Columns (1) and (2) is standardized variable to mean 0 and standard deviation 1 of the rating on a scale of 1 to 5 with 1 being not important at all and 5 as very important on the statement "How important do you think emotional intelligence i.e. the ability to monitor one's own and other people's emotions, to discriminate between different emotions is in public policy making?" U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. Dependent variable in Columns (3) and (4) present scores from regular public policy training courses at the Academy on the original scale of 0 to 10 on the workshop *Teams & Group Decisions*. This workshop simulates real decision these policymakers make in the field and assess the elite policymakers on their ability to respond as a team. Both teamwork are marked by a committee of senior bureaucrats and academics. Dependent variable in Columns (5) and (6) scores on *Quantitative Assessment* is reported. The assessment content included statistical inference course with emphasis on hypothesis testing, multivariate regression analysis with applications to policy-making and randomized evaluations. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Mechanism - Impact of Treatments on Decision Making – Normalized

	Cooperation Game		Coordination Game		Guessing Game	
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (*U*)	0.138***	0.136***	0.078**	0.065*	0.136**	0.116**
	(0.046)	(0.0489)	(0.033)	(0.035)	(0.062)	(0.058)
Stand-alone Malleability (*M*)	-0.042	-0.040	0.0213	0.018	0.040	0.037
	(0.040)	(0.040)	(0.029)	(0.031)	(0.054)	(0.055)
Joint Treatment (*UM*)	-0.003	-0.009	0.012	0.010	0.054	0.038
	(0.037)	(0.040)	(0.034)	(0.033)	(0.054)	(0.060)
Individual Controls	No	Yes	No	Yes	No	Yes
Observations	213	213	213	213	213	213
Mean of dep. var. (placebo)	0.535	0.535	0.849	0.849	0.085	0.085
p-value (test: *U = UM*)	0.001**	0.002**	0.045**	0.088	0.210	0.246
p-value (test: *M = UM*)	0.264	0.405	0.748	0.803	0.810	0.983
p-value (test: *U = M*)	0.000**	0.000**	0.048**	0.093	0.142	0.216
p-value (test: U*M = U + M*)	0.087	0.083	0.048**	0.117	0.151	0.173

Robust standard errors clustered at individual level appear in brackets. The dependent variables is normalized to an index between 0 and 1. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 7: Exploratory Analysis – Alternative Mechanisms – Normalized

	Competition Game	Patience Game	Perseverance Game	Redistribution Game	Risk Aversion Game	Trust Game
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (*U*)	0.102	-0.002	-0.070	0.013	0.007	0.043
	(0.093)	(0.018)	(0.056)	(0.010)	(0.046)	(0.055)
Stand-alone Malleability (*M*)	0.014	-0.009	-0.057	0.009	-0.011	-0.026
	(0.880)	(0.022)	(0.060)	(0.009)	(0.052)	(0.058)
Joint Treatment (*UM*)	0.058	-0.014	0.025	0.008	-0.047	-0.015
	(0.536)	(0.019)	(0.070)	(0.008)	(0.053)	(0.053)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	213	213	213	213	213	213
Mean of dep. var. (placebo)	0.321	0.604	0.132	0.492	0.732	0.538
p-value (test: $U = UM$)	0.658	0.462	0.165	0.434	0.270	0.822
p-value (test: $M = UM$)	0.662	0.804	0.210	0.780	0.499	0.236
p-value (test: $U = M$)	0.368	0.750	0.803	0.651	0.711	0.187
p-value (test: $UM = U + M$)	0.677	0.907	0.096	0.171	0.534	0.683

Robust standard errors clustered at individual level appear in brackets. The dependent variables is normalized to an index between 0 and 1. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Online Appendix to:

Training Effective Altruism

By Sultan Mehmood, Shaheen Naseer and Daniel Chen

Contents

B. Experimental Setup, Transcripts and Additional Tables

Table B1: Experimental Set-up

Note: The above figure is intentionally left blank. The exact Commons Group that identifies the cohort and year of training is anonymized as per requests by the Federal Government of Pakistan and the Academy. It is available to the editor on request though a NDA or Non-Disclosure Agreement will need to be signed with Federal Government of Pakistan and FPSC.

Table B2: Transcript of Email sent by Director of Training Academy

Subject: Workshop - Mandatory Material

Dear Officers,

It is my pleasure to welcome you all to the upcoming workshop. With this email, I wanted to send you a link to a training lecture that you should watch very carefully and answer all accompanying questions before and after watching the lecture. Please note this is a mandatory individual training assignment so do NOT share the material or the accompanying questions/answers with anyone, especially your fellow officers. Failure to comply may lead to disciplinary action. I encourage you to watch the lecture twice so that all material contained in the lecture is well understood by you. Please click "finish" once you are completely done. The link with this training lecture is below: [link]

Please access the link assigned to you by clicking on your name and entering your corresponding email. Good luck to you all!

Yours Sincerely,

Table B3: Utilitarian Treatment Transcript

I want to welcome all of you. I am your instructor for the soft skills workshop which we are starting next week. The purpose of sending you a presentation is to briefly walk you through some of the core concepts which will provide you the background knowledge that is compulsory for the upcoming workshop next week. And the first thing I want to do is, to make you comfortable. Although, this is compulsory lecture to get acquainted with the required material but there is nothing uptight about this presentation. I am really here for your benefit. I hope that is going to be a worthwhile experience for you. In this slide you see the topics that sort of headlines this presentation; We will talk about….What is empathy, Why it matters, why we need to talk about it. Then we will discuss qualitative or anecdotal evidence that is some examples from bureaucrats to underscore the importance of empathy. After presenting anecdotal evidence, we will discuss the empirical research on empathy. Ok to begin with: In modern economies the relevance of soft skills for organizational performance in the public and private sector is increasingly gaining traction. More than ever before, we are talking about organizational culture in a way that is not primarily focused on profits, regulations, processes and cognitive skills. To contexualize the discussion with some examples, let's take the example of some of the most profitable and biggest firms across the globe. In this table you see the names of companies across the globe which scored highest points in the empathy score. That means employees and employers in these firms are rated very high in empathy. Isn't it fascinating? "It is a puzzling question for economists why the most profitable and biggest firms rank so highly in empathy scores?" Why do firms who earn millions in profits also have high empathy? Is cut throatiness not going to get you more profits? Is the "rational self-interested notion of maximizing profit is most important? "Actually, it seems to be the case that soft skills are critical in all this!! "it may turn out that empathy boosts profit". This occurs because empathy equips stakeholders "employees and employers with the soft skills that allow the companies to navigate complex relationships and satisfy client needs and maintain employee trust and motivation". This empirical evidence is dispelling the view that it is being selfish and unemphatic to others is what will get you ahead in life. So, here are a few interesting definitions of empathy from different sources; this concept has been around for a while, and various religious beliefs teach us that it is something that we should practice as human beings towards others. There are different definitions of empathy in academic literature. Since there seems to be no universally agreed upon definition of empathy, "we don't need to go into the nitty gritty of each specific definition of empathy but in a nutshell empathy is putting yourself in another's shoes". It matters because the skill of empathy can help you succeed in your professional life. It can boost performance". That is to say, Empathy influences overall organizational performance and individual performance and well-being at a workplace. That is why, recent research is paying more and more attention to the effects of empathy on others. As we just saw in previous slide companies integrate empathy into their business strategies, because they think it'll help them to provide better services to their clients. We don't want to dwell too long on the private sector, but to bring it back to our context, of the importance of empathy for civil servants. Empathy is important for civil servants because public service organizations are challenging workplaces. That can be subject to emotionally demanding situations; you face demands of politicians, colleagues, clients etc. Empathy towards yourself, toward others, and

towards the citizens you serve can help you navigate this space better. It can help you at the job and it can improve services for your clients, because you consciously empathize with their needs, take their point of view, understand their concerns. This is especially relevant in a country where many people face severe hardship in daily lives and depend very much upon decisions you make!! We can find various examples of bureaucrats who are/were known for their empathic behavior towards others. For instance, Consider the example of Late KSD who recently passed away in the plane crash in Karachi? In his short career in the civil service he had made a name for himself as a "go getter" and person who delivered public service to the citizens. But not only Sherdil's repute was that of an honest, efficient, competent and above all always ready-to-help officer. He was famous for his empathy towards colleagues and citizens. Famous for helping his junior colleagues, going the extra mile when they were down and out. Here you have just one example where you have a high performing bureaucrat, admired by many for his devotion and performance, who is also well known for his empathy...Could it be that empathy and associated soft skills may have boosted his performance and helped him to deliver. It seems so. Systematic empirical research backs the idea that empathy can improve performance...also a related question is: why do private corporations train their employees in empathy? What is in for them? After all there is a Cutthroat competition in the corporate world for making profit. The point that I am trying to make it: Have you ever wondered why top multinational firms whose stated aim of existence is to maximize profits why are investing millions on "empathy" workshops? For example, at google, "Every new hire is trained in a "Google Empathy Lab". In the Google's empathy lab, employees are made to put on virtual reality googles and practice their perspective-taking or empathy. The employees are encouraged to take the perspective of homeless person and "see the world from the standpoint of the less fortunate". So in 21st century companies like Google may be investing in empathy to improve their profits and community engagement. So I made a rather bold empirical claim based on anecdotal accounts that empathy may be good for the companies financial performance. In fact a large body of research backs this up. For instance, in one prominent study at Stanford by Professor Zaki documents that empathy is more 'useful' than selfish behavior. It seems like a myth, being selfish is what will get you ahead but empathy and concern for other is key skill that those around you cherish. Empirical evidence shows that empathy benefits at different levels. First at a personal level, empathic people report to be much happier than less empathetic people. Second at a social level, empathic people have more fulfilling social lives than less empathetic people. Third, in fact empathic managers even have higher sales "Empathic managers are more productive and more successful" We have briefly touched on key findings from seminal studies on empathy that show the the very people who show empathy themselves are most successful. We would have time to go into detail of these study but I did want to give you a flavor of some research in this field...So we will go into detail of one of the studies. For instance, Scott et al., 2010 study 436 employees in a large US multinational. It was found more empathic managers had employees that reported to be happier but not only that they had "more sales"! Measuring higher on empathy scales rose sales up to 20%. Moreover, a sudden introduction of less empathic manager reduces work satisfaction, effort and sales. so the question is What is going on? (emphasis on it) Why is it that empathetic managers are not just report to be happier, their employees are happier but also they have higher sales! The answer is empathy generates trust and increase employee motivation and effort level. In a nutshell, bad bosses are bad for business. In addition, why high-stake decision makers like CEOs, elite bureaucrats and managers need empathy is that empathy is also a social good...Humans are "social animals". Empathy is social good which is valued by others If you are empathic, your subordinates will be more motivated to work with you FOR YOU! Empathy is mutually beneficial. Empathy helps you bring the best out of people. Only by taking the perspective of others can you realize the bottlenecks other people face in accomplishing their tasks and how they may overcome them. Mathieua and Babiak (2015) study 500 employees under 73 bosses. They found those bosses who scored high on "psychopathy test" had least productive employees and sales! "So, as you would have guessed nobody wants to work for bosses that are psychopathic or sociopathic". There are several studies that back the idea that if the team leader is empathic then the whole team performs better. Empathic leaders have better communication and trust with their employees and subordinates. Experimenters exposed empathic style of leadership and found employee quantity of hours put to work increased! Psychological research is suggesting that this may be due to "moral responsibility effect" (Fischer and Ravizza, 2000) It is relatively easier to shirk and "justify" your bad behavior with a bad boss not so easy with a good boss/ Another research on teams and performance, finds something very interesting. If you ask people on a team: who is the leader of the team? they are not likely to name the designated leader but the "effective leader who helped them out" in other words a colleague who was empathic to their needs, who may or may not be the designated leader. Again "humans are social animals", Empathy begets empathy. For you officers this is of course not a surprise. You must have heard stories of the celebrated bureaucrats, the ones that made the difference! They incidentally also were revered not just their work ethnic and commitment to public service but also their empathy. Qualitative and quantitative evidence backs the idea that empathy is good for you. It is not just the right thing to do but also the most sensible thing to do for your performance.

Table B4: Malleability Treatment Transcript

I want to welcome all of you. I am your instructor for the soft skills workshop which we are starting next week. The purpose of sending you a presentation is to briefly walk you through some of the core concepts which will provide you the background knowledge that is compulsory for the upcoming workshop next week. And the first thing I want to do is, to make you comfortable. Although, this is compulsory lecture to get acquainted with the required material but there is nothing uptight about this presentation. I am really here for your benefit. I hope that is going to be a worthwhile experience for you. In this slide you see the topics that sort of headlines this presentation. We will talk about: What is empathy? Is empathy fixed? Before going in depth in the question of whether empathy is fixed in a person. I would mention some motivating examples that point towards the notion that empathy of person is not an immutable or unchangeable force of nature. After going through the anecdotal accounts, I will discuss some recent empirical research that shows whether empathy changes over time? We will specifically discuss Research on malleability of empathy . So, here are a few interesting definitions of empathy from different sources; this concept has been around for a while, various religious beliefs teach us that it is something that we should practice as human being toward others. There are different definitions of empathy in academic literature. Since there seems to be no universally agreed upon definition of empathy, "we don't need to go into nitty gritty of each specific definition of empathy but in a nutshell, empathy just means putting yourself in another shoes, its taking the perspective of others when making a decision". So the question is, Is empathy fixed? Throughout history anecdotal accounts suggest people can change, people can change in the level of empathy they show to others (From Religion: Hazrat Umar, Khalid bin Waleed (Islamic religious leaders) and their transformation from enemy of the Islam to the greatest champions of Islam. We can find various recent examples of people who are known for their drastic transformation; growing themselves into an empathetic personality. For instance, Consider the example of Majid Nawaz from being international terrorist to running the biggest counter-terrorism organization in Pakistan (Quilliem) that fights the battle against radicalization by presenting alternative narratives to radicalized youth and actual terrorists in jails across the world (see his book "The Radical" for his fascinating story). Many other examples across the world show that people can change in the level of empathy : for instance, some White supremacists in US becoming biggest fighters of minority rights. So, the question is what is going on? These example suggest that one can grow himself in empathy . So I made a rather bold empirical claim based on anecdotal accounts that empathy is not fixed. In fact a large body of research backs this up. For instance, in one prominent study at Stanford Zaki and co-authors show empathy is not fixed in a person. Several studies show empathy is nor fixed in a person (see e.g. Zaki and Ochsner, 2012). "Empathy is changeable and can be influenced over time. Empathy is not stable over one's lifetime. It can be developed and cultivated." Survey after surveys also show that empathy of populations changes over time. An important point is: Empathy doesn't come naturally in all situation: For instance: Sometimes we struggle with showing empathy for someone or considering their perspective. That's OK, empathy can be changed. If we don't feel empathy naturally, it doesn't mean that we are incapable of feeling it. empathy is changeable, and that understanding that it can sometimes be difficult to feel empathetic unless we work on it: is important step to developing this important life skill. Another important point is "Empathy is not a constant of nature determined by your upbringing alone, it rises and falls based on the environment around you"). For instance, in United States where most amount of data is available empathy scores have been falling for the last 30 years i.e. empathy in US now is about 50% of what it was 30 years ago. Why is it falling, if it is fixed? And it is not just one measure of empathy but all measures seem to follow this downward trend. This data convinced many psychologists that empathy is malleable, people can grow or fall in empathy. That is exactly what this graph indicates: that empathy is falling over time! If empathy is fixed theory is correct, this graph would not be downward trending. It should be a straight line. Essentially, this is inconsistent with the fixed empathy theory where empathy of individual and populations are fixed over time. This observed decline has put out of business all the psychological theories that had argued earlier empathy was fixed. We have briefly touched on key findings from the seminal study on empathy that show empathy is not fixed. I do want to give you some more flavor of cutting-edge research in this field. So, we will go into detail of couple of the studies. For instance: does empathy change? Empathy changed when they were given perspective of others (VR glasses, research article: Bernard et al., 2018). In the first study when

researchers gave virtual reality goggles to people and made them take perspective of others (e.g. see the lives through the eyes of homeless people and beggars), the level of empathy they showed to others skyrocketed both in surveys as well as high-stake decisions). Therefore, being open minded and willing to change and learn, is essential to grow in empathy and develop this skill. A seminal study from Stanford University shows that people who are most rigid in their believe that empathy cannot change in them or others are the least empathetic to begin with. People who believe empathy is inherent and unchangeable disengage from situations where empathy is difficult for them to experience. By contrast, people who believe empathy can be developed, they feel less threatened by perceiving that their empathic abilities are being challenged in a difficult situation. Another study shows that "Resilience training" increased empathy among radicalized Moroccan youth (research article: Feddes et al., 2015). This suggests that "People really change? it hints towards the notion that we need to revise this notion empathy cannot be changed and is fixed, the level of empathy an individual has is not destiny. This also suggests the answer of the puzzling question why the most profitable and biggest firms engage in empathy workshops and "waste" millions if empathy is unchangeable? Can it be that companies like Google and Facebook think empathy is malleable in people? They can inculcate these skills. So, coming back to the basic question we began with, can empathy evolve in a person? Commonsense stories, qualitative and quantitative evidence all point to one conclusion that empathy is malleable and it can change. Empathy is a skill that can be developed. Like any skill it needs work, to understand the needs of others and not just to best serve them but bring the best out of your subordinates. Learning "The art of empathy" needs practice. Qualitative and quantitative evidence backs the idea that empathy is not fixed but malleable. It is a skill that can be developed.

Table B5: Joint Utilitarian and Malleability Treatment Transcript

I want to welcome all of you. I am your instructor for the soft skills workshop which we are starting next week. The purpose of sending you a presentation is to briefly walk you through some of the core concepts which will provide you the background knowledge that is compulsory for the upcoming workshop next week. And the first thing I want to do is, to make you comfortable. Although, this is compulsory lecture to get acquainted with the required material but there is nothing uptight about this presentation. I am really here for your benefit. I hope that is going to be a worthwhile experience for you. In this slide you see the topics that sort of headlines this presentation; We will talk about, what is empathy, why it matters, why we need to talk about it. Then we will discuss qualitative and quantitative evidence to underscore the significance of empathy for your performance. In the last part of the presentation, I will discuss some recent empirical research that show whether empathy is beneficial for you and if empathy changes over time? So, here are a few interesting definitions of empathy from different sources; this concept has been around for a while, various religious beliefs teach us that it is something that we should practice as human being towards others. There are different definitions of empathy in academic literature. Since there seems to be no universally agreed upon definition of empathy, we don't need to go into nitty gritty of each specific definition of empathy but in a nutshell empathy is putting yourself in another shoes. It matters because the skill of empathy can help you succeed in your professional life. It can boost performance. That is to say, empathy influences overall organizational performance and individual performance and well-being at a workplace. That is why, recent research is paying more and more attention to the effects of empathy on others Empathy is important for civil servants because public service organizations are challenging workplaces. That can be subject to emotionally demanding situations; you face demands of politicians, colleagues, clients etc. Empathy towards yourself, toward others, and towards the citizens you serve can help you navigate this space better, it can help you at the job and it can improve services for your clients, because you consciously empathize with their needs, take their point of view, understand their concerns. This is especially relevant in a country where many people face severe hardship in daily lives and depend very much upon decisions you make. We can find various examples of bureaucrats who are/were known for their empathic behavior towards others. For instance, consider the example of Late KSD who recently passed away in the plane crash in Karachi. In his short career in the civil service he had made a name for himself as a "go getter" and person who delivered public service to the citizens. But not only Sherdil's repute was that of an honest, efficient, competent and above all always ready-to-help officer. He was famous for his empathy towards colleagues and citizens. Famous for helping his junior colleagues, going extra mile when they were down and out. Here

you have just one example where you have a high performing bureaucrat, admired by many for his devotion and performance, who is also well known for his empathy ...Could it be that empathy and associated soft skills may have boosted his performance and helped him to deliver. It seems so. Systematic empirical research backs the idea that empathy can improve performance. Also, a related question is: why do private corporations train their employees in empathy ? What is in for them? After all there is a cutthroat competition in the corporate world for making profit. The point that I am trying to make it: Have you ever wondered why top multinational firms whose stated aim of existence is to maximize profits why are investing millions on empathy workshops? •For example, at google, "Every new hire is trained in a "Google Empathy Lab". in the Google's empathy lab, employees are made to put on virtual reality googles and practice their perspective-taking or empathy. The employees are encouraged to take the perspective of homeless person and "see the world from the standpoint of the less fortunate. So in 21st century companies like Google may be investing in empathy to improve their profits and community engagement. So I made a rather bold empirical claim based on anecdotal accounts that empathy may be good for the company's financial performance. In fact a large body of research backs this up. For instance, in one prominent study at Stanford. Empathy benefits all involved. Professor Zaki documents that empathy is more 'useful' than selfish behavior. It seems like a myth, being selfish is what will get you ahead but empathy and concern for other is key skill that those around you cherish. Empirical evidence shows that Empathy benefits at different levels. First at a personal level, empathic ate people report to be much happier than less empathetic people. Second at a social level, empathic people have more fulfilling social lives than less empathetic people.Third, In fact empathic managers even have higher sales. Empathic managers are more productive and more successful. We have briefly touched on key findings from seminal studies on empathy that show empathy benefits the very people who show empathy themselves. We would have time to go into detail of these study but I did want to give you a flavor of some cutting edge research in this field...So we will go into detail of one of the studies. For instance, empathy is beneficial to all stakeholders– An example of a Research Study: Scott et al., 2010 study 436 employees in a large US multinational. It was found more empathic managers had employees that reported to be happier but not only that they had "more sales"! Managers measuring higher on empathy scales had sales up to 20% higher. Moreover, a sudden introduction of less empathic manager reduces work satisfaction, effort and sales. So, the question is what is going on? (emphasis on it) Why is it that empathetic managers are not just report to be happier, their employees are happier but also they have higher sales. The answer is empathy generates trust and increases employee motivation and level of effort. In a nutshell, bad bosses are bad for business. In addition, why high-stake decision makers like CEOs, elite bureaucrats and managers need empathy is that empathy is also a social good. Empathy is a "social good". Humans are "social animals". Empathy is social good which is valued by others. If you are empathic, your subordinates will be more motivated to work with you, for you! Empathy is mutually beneficial. Empathy helps you bring the best out of people. Only by taking the perspective of others can you realize the bottlenecks other people face in accomplishing their tasks and how they may overcome them. Mathieua and Babiak (2015) study 500 employees under 73 bosses. They found those bosses who scored high on "psychopathy test" had least productive employees and sales!•" So, as you would have guessed nobody wants to work for bosses that are psychopathic or sociopathic". Empathy reduces shirking by subordinates. There are several studies that back the idea that if the team leader is empathic then the whole team performs better. Empathic leaders have better communication and trust with their employees and subordinates. Experimenters exposed empathic style of leadership and found employee quantity of hours put to work increased! Psychological research is suggesting that this may be due to "moral responsibility effect"(Fischer and Ravizza, 2000). It is relatively easier to shirk and "justify" your bad behavior with a bad boss not so easy with a good boss. Another research on teams and performance, finds something very interesting. If you ask people on a team, who is the leader of the team? they are not likely to name the designated leader but the "effective leader who helped them out" in other words a colleague who was empathic to their needs, who may or may not be the designated leader. Again "humans are social animals, empathy begets empathy. Ok, so empathy may be useful but does it matter if empathy is fixed and determined force of nature? So the next question is whether is empathy fixed? Throughout history we have several examples that people can change, people can change in the level of empathy they show toward others (From Religion: Hazrat Umar, Khalid bin Waleed (Islamic religious leaders) and their transformation from enemy of the Islam to the greatest champions of Islam. We can find various recent examples of people who are known for their drastic transformation; growing themselves into an empathetic personality. For instance, Consider the example of Majid Nawaz from being international terrorist to running the biggest counter-terrorism organization in Pakistan (Quilliem) that fights the battle against radicalization by presenting alternative narratives to radicalized youth and actual terrorists in jails across the world (see his book "The Radical" for his fascinating story). Many other examples across the world show that people can change in the level of empathy : for instance, some White supremacists in US becoming biggest fighters of minority rights. So, the question is what is going on? These example suggest that one can grow himself in empathy. So I made a rather bold empirical claim based on anecdotal accounts

that empathy is not fixed. In fact a large body of research backs this up. For instance, in one prominent study at Stanford Zaki and co-authors show empathy is not fixed in a person. Several studies show empathy is nor fixed in a person (see e.g. Zaki and Ochsner, 2012). "Empathy is changeable and can be influenced over time. Empathy is not stable over one's lifetime. It can be developed and cultivated." Survey after surveys also show that empathy of populations changes over time. An important point is: Empathy doesn't come naturally in all situation: For instance: Sometimes we struggle with showing empathy for someone or considering their perspective. That's ok, empathy can be changed. If we don't feel empathy naturally, it doesn't mean that we are incapable of feeling it. empathy is changeable, and that understanding that it can sometimes be difficult to feel empathetic unless we work on it: is important step to developing this important life skill. Another important point is "Empathy is not a constant of nature determined by your upbringing alone, it rises and falls based on the environment around you"). For instance, in United States where most amount of data is available empathy scores have been falling for the last 30 years i.e. empathy in US now is about 50% of what it was 30 years ago. Why is it falling, if it is fixed? And it is not just one measure of empathy but all measures seem to follow this downward trend. This data convinced many psychologists that empathy is malleable, people can grow in empathy or they can fall in empathy. That is exactly what this graph indicates: that empathy is falling over time! If empathy is fixed theory is correct, this graph would not be downward trending. It should be a straight line. Essentially, this is inconsistent with the fixed empathy theory where empathy of individual and populations are fixed over time. This observed decline has put out of business all the psychological theories that had argued earlier empathy was fixed. We have briefly touched on key findings from the seminal study on empathy that show empathy is not fixed. I do want to give you some more flavor of cutting-edge research in this field. So we will go into detail of couple of the studies. For instance: does empathy change? empathy changed when they were given perspective of others (VR glasses, research article: Bernard et al., 2018). In the first study when researchers gave virtual reality goggles to people and made them take perspective of others (e.g. see the lives through the eyes of homeless people and beggars), the level of empathy they showed to others skyrocketed both in surveys as well as high-stake decisions). Therefore, being open minded and willing to change and learn, is essential to grow in empathy and develop this skill. A seminal study from Stanford University shows that people who are most rigid in their believe that empathy cannot change in them or others are the least empathetic to begin with. People who believe empathy is inherent and unchangeable disengage from situations where empathy is difficult for them to experience. By contrast, people who believe empathy can be developed, they feel less threatened by perceiving that their empathic abilities are being challenged in a difficult situation. Another study shows that "Resilience training" increased empathy among radicalized Moroccan youth (research article: Feddes et al., 2015). This suggests that "People really change? it hints towards the notion that we need to revise this notion empathy cannot be changed and is fixed, the level of empathy an individual has is not destiny. This also suggests the answer of the puzzling question why the most profitable and biggest firms engage in empathy workshops and "waste" millions if empathy is unchangeable? Can it be that companies like Google and Facebook think empathy is malleable in people? They can inculcate these skills. So, coming back to the basic question we began with, can empathy evolve in a person and it useful for you? Qualitative and quantitative evidence backs the idea that empathy is not fixed but malleable. It is a skill that can be developed. Qualitative and quantitative evidence also backs the idea that empathy is good for you. It is not just the right thing to do but also the most sensible thing to do for your performance.

Table B6: Attrition in Blood Donation Responses

	Drop-Outs (not answering calls for blood donations)		
	(1)	(2)	(3)
Stand-alone Utilitarian (*U*)	0.019		0.011
	(0.033)		(0.057)
Stand-alone Malleability (*M*)	-0.006		0.004
	(0.024)		(0.060)
Joint Treatment (*UM*)	0.001		-0.003
	(0.024)		(0.051)
Blood Group Told			-0.030
			(0.048)
Blood Group Told X Stand-alone Utilitarian (*U X T*)		0.001	0.017
		(0.043)	(0.076)
Blood Group Told X Stand-alone Malleability (*M X T*)		-0.042*	-0.019
		(0.023)	(0.078)
Blood Group Told X Joint Treatment (*UM X T*)		-0.020	0.009
		(0.016)	(0.059)
Individual Controls	Yes	Yes	Yes
Observations	213	213	213
Mean of dep. var. (placebo)	0.019	0.019	0.019
p-value (test: $U = UM$)	0.544	0.549	0.549
p-value (test: $M = UM$)	0.783	0.286	0.286
p-value (test: $U = M$)	0.471	0.361	0.361
p-value (test: $UM = U + M$)	0.737	0.603	0.603

Robust standard errors clustered at individual level appear in brackets. The dependent variable is a dummy for not answering phone call for blood donation. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies.

Table B7: Impact on Empathy - Standardized

	Altruism Game		Charity Game	
	(1)	(2)	(3)	(4)
Stand-alone Utilitarian (U)	0.551***	0.522***	0.374**	0.452**
	(0.198)	(0.177)	(0.184)	(0.192)
Stand-alone Malleability (M)	-0.174	-0.183	-0.023	-0.027
	(0.169)	(0.160)	(0.201)	(0.196)
Joint Treatment (UM)	-0.052	-0.151	-0.015	-0.097
	(0.087)	(0.107)	(0.201)	(0.194)
Individual Controls	No	Yes	No	Yes
Observations	213	213	213	213
Mean of dep. var. (placebo)	-0.064	-0.064	-0.083	-0.083
p-value (test: U = UM)	0.004**	0.001**	0.035**	0.004**
p-value (test: M = UM)	0.485	0.849	0.967	0.716
p-value (test: U = M)	0.004**	0.002**	0.032**	0.012**
p-value (test: UM = U + M)	0.107	0.047**	0.180	0.056

Robust standard errors clustered at individual level appear in brackets. The dependent variable is standardized to have a mean of zero and standard deviation of one. U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table B8: Mechanism - Impact of Treatments on Decision Making - Standardized

	Cooperation Game		Coordination Game		Guessing Game	
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (U)	0.438**	0.374**	0.482**	0.405*	0.628***	0.616***
	(0.198)	(0.187)	(0.203)	(0.214)	(0.211)	(0.217)
Stand-alone Malleability (M)	0.129	0.118	0.132	0.108	-0.189	-0.180
	(0.174)	(0.177)	(0.181)	(0.190)	(0.183)	(0.182)
Joint Treatment (UM)	0.174	0.123	0.074	0.063	-0.013	-0.042
	(0.174)	(0.192)	(0.207)	(0.204)	(0.169)	(0.179)
Individual Controls	No	Yes	No	Yes	No	Yes
Observations	213	213	213	213	213	213
Mean of dep. var. (placebo)	-0.185	-0.185	-0.172	-0.172	-0.049	-0.049
p-value (test: U = UM)	0.210	0.246	0.045**	0.088	0.001**	0.002**
p-value (test: M = UM)	0.810	0.983	0.748	0.803	0.264	0.405
p-value (test: U = M)	0.142	0.216	0.048**	0.093	0.000**	0.000**
p-value (test: UM = U + M)	0.151	0.173	0.048**	0.117	0.087	0.083

Robust standard errors clustered at individual level appear in brackets. The dependent variable is standardized to have a mean of zero and standard deviation of one. U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table B9: Exploratory Analysis – Alternative Mechanisms – Standardized

	Competitiveness Game	Patience Game	Perseverance Game	Redistribution Game	Risk Aversion Game	Trust Game
	(1)	(2)	(3)	(4)	(5)	(6)
Stand-alone Utilitarian (U)	0.211	-0.022	-0.228	0.339	0.029	0.160
	(0.194)	(0.182)	(0.184)	(0.248)	(0.181)	(0.203)
Stand-alone Malleability (M)	0.030	-0.089	-0.187	0.243	-0.041	-0.097
	(0.196)	(0.226)	(0.196)	(0.228)	(0.202)	(0.215)
Joint Treatment (UM)	0.121	-0.143	0.082	0.207	-0.184	-0.054
	(0.196)	(0.194)	(0.228)	(0.198)	(0.202)	(0.196)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	213	213	213	213	213	213
Mean of dep. var. (placebo)	-0.107	0.187	0.090	-0.197	0.011	0.063
p-value (test: $U = UM$)	0.658	0.462	0.165	0.434	0.270	0.822
p-value (test: $M = UM$)	0.662	0.804	0.210	0.780	0.499	0.236
p-value (test: $U = M$)	0.368	0.750	0.803	0.651	0.711	0.187
p-value (test: $UM = U + M$)	0.677	0.907	0.096	0.171	0.534	0.683

Robust standard errors clustered at individual level appear in brackets. The dependent variable is standardized to have a mean of zero and standard deviation of one. U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimations obtained from OLS regressions includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. These results are also illustrated in Figure 5. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table B10: Impact on Social Media Feeds – Original and Standardized Units

	Fraction of We vs I	Fraction of Us vs Them	Fraction of We vs I (std.)	Fraction of Us vs Them (std.)
	(1)	(2)	(3)	(4)
Stand-alone Utilitarian (*U*)	0.210	0.437***	0.483	1.138***
	(0.160)	(0.133)	(0.369)	(0.345)
Stand-alone Malleability (*M*)	0.046	0.061	0.106	0.161
	(0.183)	(0.160)	(0.421)	(0.416)
Joint Treatment (*UM*)	-0.025	-0.083	-0.057	-0.215
	(0.156)	(0.151)	(0.358)	(0.393)
Individual Controls	Yes	Yes	Yes	Yes
Observations	68	53	68	53
p-value (test: $U = UM$)	0.178	0.0001***	0.178	0.0001***
p-value (test: $M = UM$)	0.713	0.449	0.713	0.449
p-value (test: $U = M$)	0.337	0.021**	0.337	0.021**
p-value (test: $UM = U + M$)	0.303	0.013**	0.303	0.013**

Robust standard errors clustered at individual level appear in brackets. Dependent variable in in odd numbered columns presents fraction of we versus I, while even number columns have fraction of us versus them as dependent variable. The last two columns present results of dependent variables that are standardized to mean 0 and standard deviation of 1. *U*, *M* and *UM* are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatment training lectures. The estimations includes the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** p<0.01, ** p<0.05, * p<0.1.

Table B11: Effect of Treatments on Perceived Importance of Prosociality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Risk Tolerance	*Patience*	*Perseverance*	*Altruism*	*Trust in others*	*Preference for redistribution*	*Cooperation*	*Competition*
Stand-alone Utilitarian (*U*)	0.198	-0.0196	-0.0655	0.00513	0.0548	-0.132	0.00567	-0.0111
	(0.271)	(0.0742)	(0.164)	(0.178)	(0.275)	(0.173)	(0.150)	(0.232)
Stand-alone Malleability (M)	-0.248	-0.127*	-0.303*	-0.106	-0.348	-0.291*	-0.242*	0.100
	(0.266)	(0.0728)	(0.161)	(0.175)	(0.270)	(0.169)	(0.147)	(0.227)
Joint Treatment (UM)	-0.325	-0.0543	-0.110	0.0266	-0.0785	-0.212	-0.0220	-0.292
	(0.269)	(0.0737)	(0.163)	(0.177)	(0.273)	(0.171)	(0.149)	(0.230)
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	199	199	199	199	199	199	199	199

Standard errors clustered at individual level appear in brackets. Dependent variables in Columns 1-8 are a rating on a scale of 1 to 4 with 1 being not important at all and 4 as very important on different traits with the statement "*How important do you think the following traits? Risk tolerance, patience, perseverance, altruism, trust in others, preference for redistribution, cooperation and competition.*" U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. The estimates are the normalized treatment effects obtained from the seemingly unrelated regressions with the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. *** p<0.01, ** p<0.05, * p<0

Table B12: Randomization Inference

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Altruism Game	*Charity Game*	*Empathy Book Choice*	*Soft-Skills Scores*	*Agreement to Donate*	*Appointment to Donate*	*Orphanage Visit*
Stand-alone Utilitarian (*U*)	0.061	0.215	0.232	0.151***	0.225	0.247	0.217
	(0.003) ***	(0.019) **	(0.019) **	(0.000) ***	(0.019) **	(0.005) ***	(0.026) **
	{0.007} ***	{0.028} **	{0.004} ***	{0.000} ***	{0.016} **	{0.005} ***	{0.025} **
Individual Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	213	213	213	213	207	207	213
Mean of dep. var. (placebo)	0.498	0.604	0.46	0.509	0.216	0.176	0.264

p-value corresponding to clustered standard errors at individual level appear in parentheses, while p-value from permutation inference are in reported in curly brackets. U is a dummy variable indicating randomly assigned Utilitarian treatment. All estimations include the following controls: written test scores, interview test scores, gender, birth in political capitals, asset ownership, income before joining civil service, age, education, foreign visits and occupational group dummies. M and UM i.e. Malleability and Joint treatment lectures are also added as controls as in the baseline specification. *ritest* in Stata is implemented with 1000 iterations to perform the permutation inference test. *** p<0.01, ** p<0.05, * p<0.1.

Table B13: Robustness to Multiple Hypothesis Testing

	Altruism Game	Charity Game	Cooperation Game	Coordination Game	Guessing Game	Competition Game	Patience Game	Perseverance Game	Redistribution Game	Risk Aversion Game	Trust Game
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Stand-alone Utilitarian (U)	0.0608	0.215	0.136	0.0655	0.116	0.106	-0.00136	-0.0696	0.0130	0.00894	0.0620
p-value	(0.003)***	(0.019)**	(0.005)***	(0.059)*	(0.047)**	(0.265)	(0.939)	(0.215)	(0.207)	(0.848)	(0.814)
Sharpened q-value	[0.090]*	[0.145]	[0.090]*	[0.094]*	[0.097]*	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
FWER p-value	{0.004}***	{0.018}**	{0.001}***	{0.043}**	{0.054}*	{0.271}	{0.945}	{0.253}	{0.120}	{0.861}	{0.813}
Stand-alone Malleability (M)	-0.0213	-0.0127	-0.0398	0.0175	0.0368	0.0178	-0.00866	-0.0571	0.00993	-0.0107	-0.187
p-value	(0.255)	(0.892)	(0.323)	(0.568)	(0.505)	(0.851)	(0.694)	(0.340)	(0.264)	(0.837)	(0.504)
Sharpened q-value	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
FWER p-value	{0.300}	{0.887}	{0.340}	{0.581}	{0.533}	{0.851}	{0.654}	{0.339}	{0.226}	{0.831}	{0.466}
Joint Treatment (UM)	-0.0172	-0.0461	-0.00924	0.0101	0.0381	0.0524	-0.0134	0.0249	0.00825	-0.0470	-0.230
p-value	(0.167)	(0.619)	(0.815)	(0.759)	(0.523)	(0.582)	(0.475)	(0.721)	(0.287)	(0.378)	(0.365)
Sharpened q-value	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
FWER p-value	{0.409}	{0.613}	{0.827}	{0.754}	{0.525}	{0.586}	{0.494}	{0.682}	{0.322}	{0.357}	{0.378}
Sample Size	213	213	213	213	213	213	213	213	213	213	213

Notes: The baseline p-values corresponding to robust standard errors clustered at individual level appear in parenthesis, Anderson's sharpened q-values appear in square brackets, and List et al. (2019) FWER adjusted p-values appear in curly brackets. The dependent variables for all games are normalized to an index between 0 and 1. U, M and UM are dummy variables indicating randomly assigned Utilitarian, Malleability and Joint treatments. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.