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[\(This paper also appears as CAGE Discussion paper 592\)](#)

October 2021 (Updated August 2024)

No: 1381

Warwick Economics Research Papers

ISSN 2059-4283 (online)

ISSN 0083-7350 (print)

A Field Study of Donor Behaviour in the Iranian Kidney Market*

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August 2024

Iran has the world's only government-regulated kidney market. We report the results of the first field study of donor behaviour in this unusual market. Participants have lower risk tolerance and higher patience levels than the Iranian average but display no difference in rationality from population averages and there is evidence of altruism among participants. We provide an examination of decision-making in extreme situations by individuals in this market, typically at the very bottom of the income distribution, and shed light on the sort of people likely to participate if other nations were to operate such markets.

Keywords: kidney donation, Iranian kidney market, risk, patience, rationality, altruism, generalized axiom of revealed preference, lab in the field.

JEL classification: I11, I12, I18, C93, D03.

*Funding was provided by the ESRC CAGE Centre (grant reference RES-626-28-0001), ethical approval was provided by University of Warwick Humanities and Social Sciences Research Ethics Committee (ref 110/14-15). The project was pre-registered with the AEA RCT Registry (<https://doi.org/10.1257/rct.1709-1.0>). Both authors contributed equally to the production of this paper and are listed alphabetically. The authors declare no conflicts of interest. Email: a.moghaddasi@lboro.ac.uk (corresponding author) and daniel.sgroi@warwick.ac.uk

1 Introduction

In recent years economists have played an important role in developing matching models to reduce waiting times for kidney donation, with the work of Alvin Roth perhaps most prominent (Ashlagi and Roth, 2014; Fumo et al., 2015; Anderson et al., 2015; Roth, 2015). While this has helped improve the situation for those waiting for donors (Krudy, 2012), we are still very far from solving the problem of long waiting lists, and tragically many patients die each year before a suitable donor is found.

In the United States, as of May 2024, there were 89,428 people on the waiting list for a kidney with around 44% waiting more than 2 years on the list (OPTN, 2024). The mean waiting time for a deceased donor kidney transplant, estimated from April 2021 to March 2022, was 4.05 years (Stewart et al., 2023). In contrast Iran, the world's only country to have a legal and government-regulated kidney market where donors receive payment, has significantly reduced the waiting list and the number of deaths.^{1,2}

The adoption of a regulated market mechanism for kidney procurement in Iran started in 1988 in the absence of sufficient posthumous donations (Ghods and Savaj, 2006). The mechanism allows living unrelated Iranian individuals to donate kidneys to Iranian patients with end stage renal disease (ESRD) for financial gains. The program was successful in eliminating the renal transplant waiting list within a decade of its implementation (Mahdavi-Mazdeh, 2012). In addition, the Organ Transplant Act legalized brain-stem death donations in 2000. Both ESRD patients and potential kidney donors are referred to and registered with The Association for Supporting Renal Patients, a non-profit organization (NGO) which conducts a primary medical evaluation and facilitates the market exchange. Upon successful completion of the test, a formal consent is acquired and the potential donor and the recipient are introduced to each other. At this stage both the patient and the donor are referred to a nephrologist for further evalua-

¹Section 2 provides up-to-date data on health outcomes in Iran and contrasts this with outcomes in the USA and the UK.

²Note that following convention even if payment is involved, anyone who willingly relinquishes a kidney for transplantation is referred to as a “donor” throughout the medical and social science literature as well as in practice and we respect that convention.

tion, cross-match, and angiography. If the patient-donor pair is compatible, in the next step the pair negotiate the terms and conditions of the exchange. All terms within the price-cap are guaranteed and enforceable by the NGO. The price-cap is frequently adjusted for inflation and during the course of our study was set at 180 million Iranian Rial (US\$4,700 in August 2017). However, the negotiation is private and the pair can agree any terms they wish. The donor also receives a “gift of altruism” and 1 year of insurance from the government through the Charity Foundation for Special Diseases. Transplant surgery is carried out free of charge in public university hospitals. The Iranian Ministry of Health and Medical Education introduced further procedural changes in July 2019. In particular, they established a center for organ transplant and procurement at the ministry which acts as the matching centre and provides oversight and overall control of the process.

The Association for Supporting Renal Patients provided us with contact details of potential donors and permission to approach them, and also provided a venue for our experimental sessions at their main building. While our methods are described in full in Section 3, we can summarize the core features here. Subjects were invited to attend a session on a day of their choosing and data was collected on an Android tablet using a purpose-built app designed to implement our experiment. Each of our 215 participants attended an uninterrupted session which took approximately 2 hours. The study started in August 2017 (shortly after the end of sanctions between the UK and Iran) and live sessions continued until May 2019, with further telephone interviews and follow-up sessions continuing until February 2021. 78 subjects were first interviewed post-donation while the remaining 137 were interviewed pre-donation. Of the pre-donation group, 91 were contacted a second time to confirm their final status in February 2021. 35 had donated by this point with the remaining 56 dropping out of the market (30 for medical reasons and 26 through choice). Following this process we were able to measure behavioural variables such as risk aversion, time preference (patience), altruism, rationality (consistency with GARP, the generalized axiom of revealed preference), and a wide variety of demographic and socioeconomic data. Where feasible we incentivized answers and used the most prominent measures available. We also examined why these patients entered the market and what alternatives might have been available to them, and we were able to compare our patient data with

available data for typical Iranians to provide a benchmark (Falk et al., 2018).

There is no doubt that the notion of paying for a kidney raises ethical concerns and may conflict with the “sacred value” of human life including through the potential exploitation of vulnerable participants, possible coercion and the fear of inequitable allocations of organs (Elias et al., 2015). Crucially, Elias et al. (2015) suggested that concerns of this sort raise the bar on efficiency, depending upon the type of kidney market. For example, they found that a public system via which donors are paid for kidneys would be supported by the majority in their choice experiment if it reduced supply issues by 10% but only if the system also involved priority rules that targeted those most in need. A system that utilized individual transactions between donors and recipients would require something more like 56% to achieve majority support. Overall they found that there was underlying support for a change (71% of the public would support a shift towards introducing payment for organ donations) but there was a clear trade-off between efficiency gains (lives saved) and ethical issues. Within medicine there have been debates going back some years on whether payment should be actively considered (Erin and Harris, 2003). There has also been media coverage in which prominent economists have put forward the case for a kidney market (Becker and Elias, 2014; Zurka, 2016). In the wider context there has been related research on the role of monetary incentives in other health-related areas such as blood donations (Lacetera et al., 2013) and vaccinations (Weaver et al., 2014; Yamin and Gavius, 2013).

Given the nature of the debate and the identified trade-off between potential ethical issues and efficiency gains there is a large gap in the literature that we seek to fill. Namely, what are the characteristics of those likely to come forward as donors if a market is established and what special features may they possess? In this way have attempted to shed light on the possible ethical concerns which in turn might help us to better understand the ethics-efficiency trade-off. Since there is only one existent regulated market, this must involve a controlled examination of participants in the Iranian kidney market.

Our paper reports an unprecedented first study of patient behaviour in the Iranian kidney market in which we obtained direct access to donors before and after surgery enabling us to perform

a “lab in the field” experiment consisting of a number of pertinent lab games and tests. We provided full incentives where appropriate during our experimental tests, with payments of around \$50 (in terms of purchasing power parity) on top of a show-up fee of roughly \$15.³ We also collected data that is similar to existing generic survey data on the Iranian population. This allows us to not only provide comparisons within our sample but also between our sample and Iranian averages. We note here that our subjects typically had extremely low income: close to the minimum income threshold in Iran, which is itself a low-income developing nation. This level of income is not surprising: the typical donor is in a desperate situation and may see entry to this market as one of their few remaining options. To some extent our work also provides some insight into decision-making in situations of great poverty and so links to a broader literature on the relationship between cognitive function and decision-making (Mani et al., 2013). We are well-placed for instance to consider the relationship between decision-making capability and poverty.

We present a series of mean comparisons between the Iranian population and participants in the kidney market, and between participants at different stages of the process. We also undertook an analysis of market participation and a longitudinal (and pseudo-longitudinal) study to tease out the role of different behavioural characteristics in the decision to participate in the market and proceed with transplant surgery. Our results, presented in full below, paint a surprisingly consistent picture. While the typical donor is in considerable financial difficulty, they are significantly more patient and exhibit lower tolerance for risk than an average Iranian (though *conditional on entering the market* those with lower patience are more likely to have donated during our study). Those who go through with the process exhibit higher levels of altruism than those who drop out.

We found no difference in rationality between participants in the market and the subjects in a leading study of rationality from which we take our core measure (Choi et al., 2014) which suggests that despite being in an extremely weak financial position our subjects are not particularly irrational.⁴ We argue that alternative options for those in financial difficulty such as approaching

³Full details of our methods are provided in Section 3 below.

⁴We develop the similarities between our population and a more traditional Western lab-based population further

a loan shark might be more appealing to the risk-loving (and perhaps more impatient) since this offers an immediate solution but replaces it with a serious and risky long-term liability, while the organ market is a difficult short-term prospect but does not result in higher levels of debt in the long run. Our findings on altruism are consistent with the idea that while donors are being paid, they are nevertheless taking part in a difficult process that has the potential of saving a life, and this may be important when considering alternatives. We would also argue that if our pool of subjects, who are towards the very bottom of the wealth distribution in Iran, share similar characteristics with a typical Western lab-population it seems likely that they will not be too different to potential donors from the West. At the very least we might consider the characteristics and behaviour among our sample to provide a possible bound to the characteristics and behaviour of potential donors in Western settings.

Section 2 provides some historical and up-to-date data on the kidney market in Iran, and contrasts this with the situation in the USA and UK. Section 3 describes our methods including the experimental design and logistical details. Section 4 outlines our data with a special focus on rationality, time-preference and risk, a Probit analysis of participation in the Iranian kidney market, and a pseudo-longitudinal panel. We discuss robustness in Section 5 and provide a discussion of our findings in Section 6.

2 A Comparison of the USA and Iran

Before providing further data on the Iran kidney market, this section starts by looking at the equivalent process in the West to give us a suitable benchmark. We focus here on data from the US and UK systems, where the process is based around a donation model that does not involve payment to donors. This is reflected across the world, whereas Iran is the only regulated and legal market with payment for kidneys following the process described in Section 1.

In 2023, a total of 27,332 kidney transplants were performed in the USA, including 21,042 from deceased donors and 6,290 from living donors. The prevalence of End-Stage Renal Disease (ESRD) patients in the USA reached 808,536 in 2022 (increased to 815,142 by the third

in Moghaddasi Kelishomi and Sgroi (2022) and argue that this provides a useful robustness test for lab studies and helps to reinforce the generality of existing experimental findings that are based on Western lab-studies.

quarter of 2023). Among these patients, 57% underwent hemodialysis, 8.2% received peritoneal dialysis, 1.6% underwent home hemodialysis, and 31% had undergone kidney transplantation. The mortality rate among adult ESRD patients was 153.7 per 1,000 person-years (187.7 per 1,000 person-years in patients receiving dialysis) in 2021. Figure A1 in the appendix shows the cumulative incidence of kidney transplant wait-listing and death in the 3 years following dialysis initiation in 2018. As evident from Figure A, at 3 years following dialysis initiation, 12.0% were wait-listed for a kidney transplant while 40.1% had died. Figure A2 in the appendix displays the cumulative incidence of receiving a kidney transplant or of dying within 5 years after wait-listing in 2016 for patients with ESRD. By the end of 5 years, nearly half, 46.3%, of patients had received a transplant, while 18.5% had died.⁵ In the UK the situation is similar with the National Health Service reporting a waiting list of 5,361 people as of April 2023, and 278 deaths while waiting for a transplant in fiscal year 2022 (NHS, 2024).

Iran stands out as the world's sole nation with a legal and government-regulated kidney market in which kidney donors receive payment.⁶ Introduced in 1988, this market effectively eliminated the kidney transplant wait-list by 1999 (Ghods and Savaj, 2006). Approximately 40% of kidney transplants in Iran are performed from live donors with the remainder taken posthumously (Kidney Foundation of Iran, 2018; IRNA, 2018; Shadnough et al., 2023; Simforoosh et al., 2019).

As of the end of 2015, there was a total of around 58,000 end-stage renal disease (ESRD) patients in Iran, of which 29,200 patients underwent hemodialysis, 1,624 received peritoneal dialysis, and 27,000 received kidney transplant (Yousefi et al., 2024). These numbers have exhibited a notable upward trend in recent years (Nafar et al., 2020). In 2015, a total of 2,578 kidney transplants were performed, with living donors contributing 47% of the total share. The

⁵ All data regarding United States is from the 2023 United States Renal Data System (USRDS) Annual Data Report (ADR), accessible at <https://usrds-adr.niddk.nih.gov/2023>.

⁶ Shimazono (2007) discusses the global situation, highlighting the unique nature of the Iranian market (as the only officially regulated market) and also describes the global black market in organs. Typically, black market operations do involve payment but the market is not officially regulated. Such markets exist throughout the world including substantial markets for kidneys in India and Nepal which includes the transportation of live donors across international borders and may even involve human trafficking. Columb (2020) provides a more up-to-date examination with even more detail on illegal organ trafficking and the extent to which this involves the potential exploitation of potential donors.

proportion of kidney transplants from living donors has hovered around 40% between 2016 and 2019, with an average of 2,306 total transplants per year during this period (Shadnough et al., 2023). These statistics underscore a mismatch between transplant rates and the increasing prevalence of ESRD, leading to 6,240 patients being placed on the waiting list for kidney transplantation in 2019 (Shadnough et al., 2023). Overall, obtaining data on the average wait-time presents challenges. In their study of recipients of living and deceased-donor kidneys, Basiri et al. (2020) estimated the waiting time for kidney transplant recipients from living donors to be 7.05 months and from deceased donors to be 11.27 months over the same study period as ours, 2016-17, in Tehran. Data regarding mortality rates during dialysis or while awaiting transplantation in Iran are scarce. However, estimates of survival rates for individuals on maintenance hemodialysis have been reported. For instance, a cohort study conducted at a Tehran-based center between 2004 and 2018 documented survival rates of 88%, 65%, 48%, and 12% at 1, 3, 5, and 10 years, respectively (Hashemi et al., 2021).

Finally, we note here that while we focus on the prevailing system in Tehran and elsewhere, there exists some variation in kidney market practices within Iran. For instance, in Shiraz, a province located in south-central Iran, the practice of paid living unrelated donor (LURD) transplants was discontinued in 2008 (Shiraz stands as the sole province in this regard), with the focus shifting to kidney transplantation from deceased donors (Ghahramani, 2016). Similarly, the market in Mashhad, located in northeast Iran, has implemented some changes to its practices. These changes include the requirement of blood similarity rather than mere compatibility for matching purposes. Furthermore, the system in Mashhad tolerates side payments and offers additional assistance to economically disadvantaged patients, aiming to enhance accessibility to the market for this demographic (Feizi and Moeindarbari, 2020).

3 Methods

Our main method was the use of an experimental design combined with a series of survey questions all undertaken in a field setting. Our design was registered in August 2017 at the start point of the field study (Moghaddasi Kelishomi and Sgroi, 2017) which ran until May 2019, with further telephone interviews and follow-up sessions continuing until February 2021.

Early access to patients in the Iranian kidney market provided by the Association for Supporting Renal Patients NGO was a crucial part of our design: in many cases we were able to interview patients long before they were due to go through the donation procedure and follow this up at a later date whether surgery had taken place or not, allowing us to draw a distinction between those who opted to continue with surgery, those who did not by choice, and those who dropped out for medical reasons. We also conducted interviews with patients who had already donated, and were fortunate to have raw data for typical Iranians provided by Falk et al. (2018). This provides us with a number of dichotomies across a wide range of experimentally generated data (such as attitudes towards risk, patience levels, rationality as measured by consistency with the generalized axiom of revealed preference, etc.) as well as more traditional survey questions and demographic data. In the remainder of this section we will first go through the design in more detail before moving on to a summary of more practical aspects of the study. The full experimental script is provided in the Appendix.

Experimental Design. All of our 215 participants took part in an experimental procedure located in the Iranian capital Tehran, including a set of 11 tasks which are detailed in full in the Appendix and described below.⁷

The first task for participants was a questionnaire which contained a series of basic demographic questions (gender, age, siblings, religious beliefs, marital status, children, gender, self-reported happiness and education level) and questions relating to their history of donations (including blood donation and intention to provide posthumous organ donations). The second task switched attention to economic data including employment status, income, job details, property ownership, car ownership, family economic status, and information related to the organ sale including price paid, advice received from others concerning the process, willingness to go ahead for a lower price, and willingness to sign a consent form for posthumous organ donation without payment. This final question included the opportunity to sign and submit the official form at the end of the session, and therefore provides a relatively robust test of true intentions, which is

⁷To give an idea of scale, in 2017 there were 931 kidney transplants from live donors in the whole of Iran (Kidney Foundation of Iran, 2018). There are 30 kidney transplants units in Iran with 12 units located in Tehran and the rest in other Iranian cities (IRNA, 2018). Our sample is therefore a non-trivial proportion of all live donors in Tehran and indeed even within Iran.

discussed in further depth in the results section below. The questionnaire in Task 3 focused on expectations about well-being, health and employment prospects after the operation and possible alternatives to the operation (such as bank loans, borrowing from family and selling assets if available).

The next part of the experimental design shifted away from demographics and survey questions towards a series of incentivized tasks designed to reveal behavioural characteristics. Task 4 was a simple preliminary check on basic understanding and numeracy, with questions such as: “what is 30% of 200,000 rials?” Task 5 was a timed intelligence test involving a set of 15 Raven’s graphical matrix questions, as detailed in the Appendix, to be completed within 8 minutes (a countdown timer was clearly visible). Task 6 was our measure of rationality following directly from Choi et al. (2014) and measured consistency of individual choices with the Generalized Axiom of Revealed Preference (GARP). The participants were presented with a sequence of decision problems under risk, with each presented as a choice from a two-dimensional budget line. Exactly as in Choi et al. (2014) each choice of the allocation from the budget line represented an allocation of points between accounts A and B (corresponding to the horizontal and vertical axes) and the incentivized payoffs of a particular choice were determined by the allocation to the A and B accounts; the subject received the points allocated to one of the accounts A or B, determined at random.

Task 7 provided our core incentivized measure of attitudes towards risk and is taken from the risk “staircase” developed in Falk et al. (2018). Participants were asked an initial question in which they had to state their preference between a sure payment and a gamble. Depending upon their answer they moved forward to a new question and this was repeated until a total of five questions had been answered. Task 8 switched back to a set of miscellaneous non-incentivized questions, mainly about the participant’s experiences in the organ market including whether they would recommend the market to friends and family, whether they felt the current system performed well, the money they had received and what they used the money for as well as some hypothetical questions about time preference and depression. Task 9 mirrored task 7 but this time following the “staircase” approach to measuring time preference and this provided our

core *incentivized* measure of patience. Task 10 presented the 10-question version of the Big Five Personality Inventory (Rammstedt and John, 2007). Task 11 concluded the experiment with the 15-question version of the Barratt Impulsiveness Scale (Spinella, 2007).

For those subjects who took part in two sessions, the only changes made were to adjust the questions to refer to post-donation rather than pre-donation where relevant. The show-up fee and incentive payments remained the same.

Logistics. The average number of participants per session was 5.6 and refreshments were provided during the session. We examined a total of 215 participants throughout the study. 78 were first interviewed post-donation while the remaining 137 were interviewed pre-donation. Of the pre-donation group 91 were contacted a second time to confirm their final status in February 2021. 35 had donated by this point, with the remaining 56 dropping out of the market (30 for medical reasons and 26 through choice).

Pre-donation participants were interviewed for the first time prior to transplant surgery. We collected a list of those who registered with the NGO to donate their kidney once every week or every two weeks over the months during which we conducted the interviews.⁸ Upon receiving the list, we contacted everyone on the list to invite them for an interview. Not all participants were able to attend the interviews because of the long travel time from other cities to Tehran where the interviews were held, difficulties taking time off work for the interviews and so on, though we adjusted our show-up fee to control for travel costs in order to mitigate this to the best of our ability.

Our experimental sessions were undertaken in the city of Tehran. Tehran is the capital and largest city in Iran, and also capital of the Tehran province. Due to various exogenous changes in the management of the NGO and the Iranian Health Ministry, the closest period with stable data (2016) indicates that in a year we might expect around 428 donors in the area to reach the pre-donation stage. This suggests that our sample of 137 pre-donation participants amounts to

⁸There were exogenous logistical interruptions (such as a change in the administration of the NGO or health team) that forced us to temporarily suspend our study twice, each time for a duration of two months, over the period of the study. These exogenous events were outside our control and were not correlated with any of the behavioural characteristics within our pool.

around 32% of what we might expect in a typical year. The Tehran region itself accounts for around 25% of the total pool of donors across the entirety of Iran.⁹

In follow-up telephone interviews, we distinguished between participants who declared “they are still waiting for the donation” and those who declared that they had changed their mind. We did not include the earlier group in any of the comparisons presented in the paper since their status was essentially unchanged from first contact. The average waiting time between first interview and transplant surgery in our sample was about 54 days. The latest follow-up update in February 2021 was 639 days after the first interview of the last person in our sample. Of the 137 individual potential donors, the final status of 46 participants was unknown after the second interview: these are individuals who could not be reached by telephone. Table 1 shows little meaningful difference between respondents and non-respondents in the second interview suggesting that there was little evidence of bias in attrition.

Summary statistics are provided in Table 2. Demographic and socioeconomic information is summarized in Table 3 and we can see that the pre-donation and post-donation pools were in general similar, though our results section examines the differences at length. Finally, we provide descriptive statistics for the key behavioural characteristics in Table 4.¹⁰ A summary of the values from our full set of participants is provided in the top section taken from their first experimental session, while the lower section provides averages from the Iranian population (who were not incentivized and who took part in a telephone interview session) taken from Falk et al. (2018).

Payments were split between a show-up fee and incentive payments. The show-up fee was set

⁹We also note here some similarities between our sample and the full 2016 organ donation population which suggests that our sample appears to be representative of a typical population of donors. Female donors comprised approximately 16% and 19% of total donors in Iran and Tehran, respectively, as opposed to the 19% representation observed in our sample. Donors aged 21-32 constituted 41% and 41% of total donors in Iran and Tehran in 2016, respectively, compared to 55% in our experimental sample. In 2016, 77% and 75% of donors were married as opposed to 79% in our sample. More demographic detail on our sample is provided in Table 3.

¹⁰We also made use of a robustness check. In Iran, financial calculations often involve large numbers of digits since 1 US dollar is worth more than 40,000 Iranian rials. It is therefore common practice to drop zeros in conversation when managing daily financial activities and informal variations exist to simplify this (for instance 10 rials is often abbreviated as 1 toman). On this basis we constructed an alternative math measure which considers answers with missing zeros as correct for questions 1 and 2. For instance, instead of entering 60,000 as the correct answer to question 1 in task 4, participants could enter 6, 600 or 6000. Our results remain robust to the use of this recoded version of the math measure.

at 200,000 Rials which is the equivalent to \$5.23 (converted via the market exchange rate) or \$15.32 (in terms of purchasing power parity).¹¹ Incentive payments varied but typically were made in the range of 600,000–700,000 Rials or equivalently \$15.69–\$18.31 (market exchange rate) or \$45.96–\$53.62 (purchasing power parity). We adjusted the show up fee and incentive payments annually to account for inflation during the study using the official inflation rate from the Statistical Centre of Iran.

4 Results

In this section we first discuss broad features of the data focusing on three behavioural parameters: rationality, time-preference and attitudes towards risk. We then move on to a Probit analysis of participation in the market in which we highlight the importance of risk, patience, performance in the Raven’s matrix (IQ) test and other variables which includes a pseudo longitudinal panel.

In what follows we mainly made use of data from our own pool of organ market patients but occasionally we compared this with data from Falk et al. (2018) for average Iranians which was collected as part of the Gallup world poll in 2012. Their data set was a representative sample of Iranian adults and since we opted to measure attitudes towards risk and time preferences in exactly the same way as in Falk et al. (2018), this provided a useful benchmark for our own data. However it should be noted that Gallup employed telephone interviews (both landline and cellular) to collect their data which was not incentivized. Given the small size of our pool of organ market participants as compared with the general population, we assume that the Falk et al. (2018) sample does not include any kidney market participants. Comparisons between our sample and the general Iranian population allowed us to get a feel for how similar or different a typical Iranian donor might be to typical citizen which may be of particular interest when considering take-up for any country moving towards a regulated kidney market.

Mean Comparisons. Our core measure of rationality followed directly from Choi et al. (2014)

¹¹Conversions were calculated using the market exchange rate of 38,210 IRR = 1 USD from www.tgju.org for the market rate. For purchasing power parity, the conversion was calculated using the purchasing power parity conversion factor, GDP (LCU per international \$) for 2017, 13,061.3 = 1 USD from the World Banks’ world development indicator.

who developed a method for testing consistency of individual choices with the Generalized Axiom of Revealed Preference (GARP). The process is incentivized and described in Section 3 (and shown in full in the Supplementary Material). Following this procedure, each subject's performance was summarized in a CCEI score. This score provided a direct measure of the extent to which a budget line needs to be raised to remove violations of GARP. The CCEI scores for our subjects averaged 0.85 over all participants in session 1. This translated to a need to reduce the budget line by 15 percent, on average, to eliminate a subject's GARP violations. This is similar to the average of 0.881 in Choi et al. (2014). Panel (a) in figure 1 illustrates the mean rationality scores and 95 percent confidence intervals over different socioeconomic groups. The graph suggests that high-education subjects (defined as subjects with a university degree) were more likely to have choices that were consistent with GARP than medium-education (defined as subjects with a high school education) donors ($p=0.007$) and low-education (defined as subjects with primary and secondary education) donors ($p = 0.001$).

From panel (a) of figure 1 we can also see that females displayed higher levels of consistency than males but not significantly so ($p = 0.356$). Young subjects, aged below the sample-average age of 32 years, displayed higher levels of consistency than those who were above the average age ($p = 0.281$), which is consistent with the findings in Choi et al. (2014).

Moving on to time-preference, panel (b) of figure 1 pools mean patience levels with associated 95 percent confidence intervals by socioeconomic groups. We elicited time-preference, displayed in panel (c), using the staircase procedure outlined in Falk et al. (2018) and in Section 3 (the full procedure is in the Supplementary Material). Subjects faced five interdependent hypothetical binary choices between immediate and delayed financial rewards, being offered either immediate payment or a larger payment after a two weeks delay. The immediate payment was fixed over the subsequent 4 questions. However, in order to narrow down the reward at which subjects were indifferent between the immediate payment and the delayed payment, the delayed payment increases or decreases following the answer to the previous question. A question was then selected randomly and the participant's choice resulted in an incentive payment made at the end of the session (or two weeks later as appropriate).

The patience levels shown in panels (b) and (c) of Figure 1 range from 1, the least patient, to 32, the most patient. The average patience level for participants in session 1 was around 13.07 for kidney donors which is statistically very much higher than the average patience level of 3.75 in the Iranian population ($p = 0.000$). Females on average displayed higher patience levels than males, although this was not statistically significant within our kidney market sample ($p = 0.342$) as compared to the Iranian population sample in which there was mild significance ($p = 0.049$). We also see some evidence of variation by age and education: for instance higher levels of patience in medium-education subjects and those with higher age than average though these findings were not statistically significant (for age $p = 0.147$).

Moving on to attitudes towards risk, panels (d) and (e) of figure 1 show the mean risk-taking levels and 95 percent confidence intervals by socioeconomic groups for kidney donors and the Iranian population respectively. Following Falk et al. (2018) we again used a staircase procedure to elicit subjects' risk preferences similar to the procedure for time-preference, which is described in detail in section 3 (and the full procedure is given in the Supplementary Material). Subjects faced 5 binary questions where they were required to choose between either a varying sure payment or a lottery in which they have an equal probability of winning a fixed amount or zero.

The risk preference measure ranged from 1, the lowest risk-taking level, to 32, the highest risk-taking level. The average risk-taking score for participants in session 1 was around 13.93 for kidney donors which was lower than the average risk taking level of 15.77 in the Iranian population ($p = 0.008$). In both samples females displayed more appetite for risk than males ($p = 0.2041$ in the organ market, and $p = 0.003$ in the general Iranian population). Medium-education subjects displayed higher levels of risk-taking than subjects with low levels of education ($p = 0.040$) or high levels of education ($p = 0.1402$).¹²

Regression Analysis. Table 5 presents probit estimates for organ market participation. In order to generate the results in this table, we pooled the GPS data (N1=2507) with organ data

¹²In Table 10 and Figure 2 we provide the relevant findings from Falk et al. (2018) which indicate the relative patience and risk-taking attitudes of Iranians compared to individuals from other parts of the world.

(N2=215), giving us a total number of 2722 observations in column 1. Information on risk and patience is missing for some of the observations in column 2 (reducing the total to 2644). Our results suggest that males were more likely to donate their kidney and participation is decreasing by age. A unit increase in our measure of patience increases the likelihood of kidney donation by 0.83%, ($p = 0.000$) for males when all other covariates are kept at their mean level. A unit increase in our measure of risk-taking reduced the likelihood of donating a kidney by 0.21%, ($p = 0.001$) for males when all other covariates were maintained at their mean level.

Table 6 provides a comparison of behavioural characteristics before and after transplantation for a small sample of 14 patients whom we were able to interview before and after surgery. The table compares behaviour before and after undergoing kidney transplant surgery. The top panel compares longitudinal changes in IQ, rationality, attitudes towards risk and patience. The first column presents the mean change (where the post-surgery value is deducted from the pre-surgery value) in each measure. A paired t-test was used to evaluate the effect of undergoing surgery within the longitudinal group. Results suggest that the behavioural characteristics were stable.

Given the small sample we follow the pure longitudinal results with a pseudo-longitudinal analysis of 113 patients in the lower panel of Table 6. Participants who had not donated their kidney at the time of their first session but eventually proceeded with transplant surgery constitute our pre-surgery group, while those who had donated their kidney before attending the first session constitute our post-surgery group. Patience is the only behavioural variable that displayed a significant change ($p = 0.001$) which suggests that the results in both analyses were broadly consistent.

We note one potential difference in interpretation when comparing the longitudinal with the pseudo-longitudinal data. Within the pseudo-longitudinal analysis, the post-surgery group donated up to several years prior to the experimental session and so might be considered a more long-term comparison than the longitudinal study. Under this interpretation our results indicate stability in the short-run (longitudinal) and long-run (pseudo-longitudinal).

Table 7 presents probit estimates for the decision to go ahead with transplantation conditional on participating in the market. The total number of observations was the sum of those who participated in the market and opted to willingly go through with donation and those who changed their mind and exited the market. The dummy variables blood donation and organ form are the binary (yes or no) answers to questions about whether the participant had donated blood before and whether the participant was willing to sign the organ donation after death form at the end of the session, respectively. In the latter case subjects completed the form during the session.

A participant who attended the first session but had yet to go through with kidney surgery, changed status to one of the following: either they proceeded with transplantation, or they failed the medical test and could not proceed, or they changed their mind and exited the market. Table 7 compares the first and the last group: in other words, it represents a choice by the participant to willingly go through with donation or exit the market. Results from model (3) show that *conditional on participating in the market*, those who had lower levels of patience were more likely to go ahead with donation (recalling from Table 5 that participants *in the market* started with significantly higher levels of patience than the national average). We also note here that those who were more likely to sign the posthumous organ donation form were also more likely to go ahead with donation. To give an idea of scale, male participants who were willing to sign the after-death organ donation form were 34% more likely to proceed with donation. A unit increase in our measure of patience also reduced the chance of proceeding with transplantation by 1.4% when all other covariates were maintained at their mean level. We also found that variables such as IQ, risk taking and rationality did not play a role in determining whether our participants opted to proceed to transplant surgery. Table 8 shows similar results when we compared the donors to the general population.

5 Robustness

Several checks were carried out to further validate our findings. One concern regarding incentivized kidney donation might be that participants did not really understand what they were signing up for, which may seem applicable to our sample given the low average number of correct answers in the math and IQ scores. If this were truly the case, we should perhaps have

expected low cognitive ability participants to have been more optimistic about the side effects of donation and how it might affect their life.

To examine this, we tested whether participants' responses to several questions regarding the side effects of donation correlated with their math, IQ, and rationality scores. The questions concern negative impact on their life, whether they will ever fully recover, the instant physical damage of donation and the impact after 6 months, and job opportunity impact immediately following the procedure and 6 months later. Results are reported in Table A4.

On the question of the negative impact on life, there were no statistically significant differences in average math, IQ, and rationality scores between participants who answered "no" and "I don't know", and those who answered "yes" to the question.

As for the "whether they will ever fully recover" question, findings were more nuanced. Participants who didn't know whether they would ever recover after the donation had lower math and IQ scores (significant at 5%) compared to those who responded yes, they would fully recover. There was no difference with respect to the average rationality score.

In terms of physical health damage, participants who responded "no" or "do not know" when asked about the prospect of instant physical damage (or physical damage in 6 months) had on average a lower IQ score, significant at 5% and 1%, respectively. However, note that medical studies in this area suggest that long-term post-donation physical damage is usually rare with the exception of raised blood pressure. For instance, Ibrahim et al. (2009) in a study on the vital status of 3,698 kidney donors shows that kidney donors present a similar risk of end-stage renal disease (ESRD) in comparison with the general population. They also have a preserved glomerular filtration rate (GFR) and normal albumin excretion (a high level of albumin in urine, microalbuminuria, is believed to be a good predictor of ESRD). Other studies show that the risk of ESRD increases by less than 0.5% over 15 years (see Reese et al. (2015) for a comprehensive review of studies on the health outcomes after kidney donation in both developed and developing countries).¹³

¹³Similar long-term follow-up studies with control groups are scarce in Iran. In a short term follow up study of 86 kidney donors in Iran, with a mean (\pm SD) of 17.24 ± 5.04 months after donation, compared to 12.2 ± 9.2

As indicated in Ibrahim et al. (2009), long-term physical damage stemming from kidney transplant surgery is relatively low, and so if anything it appears that higher IQ subjects may have overestimated the extent of long term physical damage generated by a transplant. Note that this is consistent with the literature that suggests that in the domain of losses high IQ individuals may suffer from excessive levels of risk aversion (relative to the domain of gains). This was shown in the Danish population in general (Andersson et al., 2016) and among Spanish business school students in particular (Amador-Hidalgo et al., 2021). Using data from our own study we find a similar relationship (Moghaddasi Kelishomi and Sgroi, 2022). More generally Moghaddasi Kelishomi and Sgroi (2022) demonstrates that our subjects exhibited a degree of consistency with subjects in existing experimental studies which might be considered reassuring given the highly unusual nature of our subject pool and the extent to which they contrast dramatically with so called WEIRD subject pools typical of field studies (Puthillam, 2020).

With respect to the job impact question, the only significant difference was in terms of math score. Participants who responded “no change” in their job opportunity had a significantly higher math score (significant at 5%) compared to those who responded “it will get better”. No statistically significant differences were observed in terms of IQ and rationality scores. The above results were robust to excluding participants with an IQ score of zero (which might indicate that they did not take the question seriously or they performed poorly).

Another concern could be related to the suitability of the Choi et al (2014) task to measure rationality in our sample. Although the task does not require complex probability calculations, which is one of the advantages of this task, we took the following steps to evaluate whether the math score was related to rationality, measured by the CCEI index. First we checked whether being able to answer question 1, “30% of 200,000RLS”, and question 2, “30% chance of winning 500RLS”, in the math task correctly was related to the rationality score. The mean tests did not reveal any statistically significant differences in the mean CCEI score between participants who answered any of the questions correctly or incorrectly. Next we tested whether our main findings in Table (7) were driven by participants’ ability to answer these two questions. We

years in Ibrahim et al. (2009), Azar et al. (2007) found that 37.5% of donors had hypertension and 10.4% had microalbuminuria. This compares to 32.1% and 12.7%, respectively, in Ibrahim et al. (2009).

controlled for *Q1correct* and *Q2correct*, which are dummy variables equal to 1 if a participant answered Q1 and Q2 correctly, respectively. Results were unchanged relative to those in our main specification after we controlled for these dummies, either alone or through interaction with the CCEI score.

As a final robustness check, we excluded from the sample participants who failed to answer any questions correctly in our IQ test and re-estimated the specification in column 3 of Table (7). The number of observations dropped from 58 to 51 but the results were remarkably similar. Our results were also robust to controls for education and household income.

6 Discussion

Our results can be summarized as the answers to several important questions. The first is whether Iranian kidney donors are irrational. Our results focused on adherence to the general axiom of revealed preference (GARP) which is a widely-accepted measure of rationality within Economics. Our subjects averaged a CCEI score of 0.85 which translates to a need to reduce the budget line by 15 percent, on average, to eliminate a subject's GARP violations. This is similar to the average of 0.881 in the paper that introduced this form of measurement (Choi et al., 2014). Moreover, our data showed that those with higher levels of education perform better which is entirely consistent with expectations. We also found no difference in rationality between key groups within our sample: for instance when evaluating the effect of undertaking surgery as opposed to not doing so through choice or otherwise, rationality remained constant. Our results suggest that Iranian kidney donors do not display unusual levels of irrationality and in fact seem entirely typical. This is further supported by our finding that IQ does not play a role in our longitudinal or pseudo-longitudinal analysis, and in some of our more subjective survey questions which indicated that the decision to donate was made largely for financial reasons and after significant deliberation: the alternatives (approaching a loan shark or selling assets such as a car) may well have been worse.

This brings us to the second key question: are Iranian kidney donors unusual in terms of their risk profile? Our method was to follow the procedure outlined in Falk et al. (2018) and to

perform comparisons with the raw data for Iran provided by the authors of that paper as well as within sample comparisons. In terms of risk we saw highly statistically significantly lower levels of risk taking preferences in our sample than in the general Iranian population ($p = 0.008$) when comparing our data to the raw data from Falk et al. (2018). This is confirmed in a regression analysis indicating that participation in the market fell as risk-taking behaviour rose: a unit increase in our measure reduced participation by 0.21% and was highly significant ($p = 0.001$). We picked up no effect in our longitudinal and pseudo-longitudinal analysis suggesting that risk played a role in entering the market but not through to conclusion.

The next question concerns patience: are donors simply impatient to raise money which is pushing them towards a rash decision? Mean comparisons between our sample of participants in the kidney market and the general Iranian population derived from Falk et al. (2018) showed that our subjects were highly statistically significantly more patient ($p = 0.000$). This might explain why they were considering donation, since alternative ways to raise funds might provide a quicker short term solution to financial difficulties but could entail more problems in the long-run. Note that *conditional on participating in the organ market*, those with lower levels of patience were more likely to donate.

We also have data on a subject's willingness to sign a posthumous organ donation form (to relinquish their organs at death). In our longitudinal and pseudo-longitudinal analysis we found that conditional on participating in the market, those who were more likely to sign the posthumous organ donation form were more likely to go ahead with donation. There is some credibility attached to this since subjects completed the relevant form as part of the experiment. We might consider signing an organ form a measure of risk-taking behaviour, however, there was absolutely no correlation between risk-taking behaviour and willingness to sign the organ form in our sample. Therefore we lean towards the interpretation that those who completed surgery were more altruistic. This is of course consistent in the sense that the final outcome is typically to save someone's life (contrasting with alternative ways to raise funds) and may also be undertaken in an effort to support a family which already incorporates a high degree of self-sacrifice.

Table 3 presents the mean monthly income of our sample as compared to the minimum income

in Iran. The minimum monthly wage in Iran was 11,860,273 Rials over the period of this study (ILNA, 2021). The average household income in our sample was 15,205,690 Rials. This was a remarkably small difference suggesting that our sample contains individuals close to what was considered minimum income in Iran. The average household income over the same time period in Iran was 37,298,889 Rials (SCI, 2021). In addition, 18.8% of people aged 18-35 were unemployed during the period of this study which was much less than our sample when comparing a similar age group (ILNA, 2020). In terms of wealth, only 5.5% of our participants owned a house compared to 64% in the general population, and 72.5% live in a rental property compared to 26% in the general population in 2018. Only 8.7% of our participants owned a car compared to 53% in the general population (SCI, 2018).

The overall picture is of individuals who were in financial need, often unemployed but with a family to support and where alternative sources of financial support were grim. However, despite their financial position, these individuals were typically patient and not especially prone to risk-taking. They were no less rational than the average, but those who ended up completing the process might be characterized as more altruistic than those who did not. This could be contrasted with the findings in Mani et al. (2013) though our context is very different. More broadly our findings indicate that even in situations of extreme poverty we should not assume lower levels of rationality will be pervasive.

We can also make two related points about how the money raised through the market is spent by donors. As shown in Table 9, around 83% of our subjects elected to enter the kidney market to cover long-term costs such as paying off long-term debt or covering durable good purchases. Very few entered the market to cover short-run shocks (such as medical emergencies). Second, from a policy perspective Western governments that offer a welfare state or a form of health insurance arguably help with short-run medical emergencies and so would remove the need for potential donors to resort to entering the kidney market, and similarly might provide some support for those wishing to buy a property or cover long-term debt. The extent of this support of course differs by country but this might nevertheless change how funds acquired through the kidney market are used by donors in potential markets outside Iran.

We might wonder about the similarity between donor characteristics in Iran and (should markets be established elsewhere) in other locations. Moghaddasi Kelishomi and Sgroi (2022) demonstrated that our subjects exhibited a degree of consistency with subjects in existing experimental studies (in more traditional Western settings). In particular, we found a similar relationship between cognitive ability and risk preferences in our sample to that documented in Western samples. We also provided a comparison between risk and patience levels in our sample and the Iranian average and draw on work in Falk et al. (2018) which in turn compares the Iranian average to the rest of the world. Note that none of these comparisons involved donors in the West since there is no comparable market, and even within the standard donor systems in place outside Iran there is no readily available behavioural data. If we consider donors in a hypothetical market for kidneys in the West, we might consider some of our results to offer a plausible bound on behaviour. For example, Western populations are unlikely to be significantly poorer or face greater deprivation than those who sell their kidneys in Iran, and given the findings in Mani et al. (2013) that might lead us to believe that Western populations should score better in tests correlated to rationality which is reassuring given how well our subjects performed. We also note that notwithstanding the lower level of development in Iran compared to the US or UK, those who might be willing to sell a kidney in the US or UK in order to raise funds might well be quite close to the bottom of the income distribution and so might be more comparable to our Iranian population. These points are necessarily speculative because there is no current legal market for kidneys in the West.

It is worth considering whether the more patient individuals in our sample suffered from excessive optimism which might be a source of exploitable vulnerability. While we discuss beliefs around recovery from the organ surgery itself in the main results section, we can also look at more indirect measures in a more speculative sense here. First, we have data from the Big Five Personality Test which includes subject-level trait data on extraversion, agreeableness, conscientiousness, neuroticism and openness. As shown in Sharpe et al. (2011), four of the Big Five factors: neuroticism, extraversion, agreeableness, and conscientiousness, are known to be correlated with optimism and so we can ask whether any of our measures (which can be used as proxies for optimism) correlate with patience. What we see from Table A1 in the Appendix is

that our measure of patience correlates with only one personality trait, conscientiousness. The p-value is under 0.01 and taken at face value this suggests that the most patient of our donors were more conscientious and so possibly also more optimistic. However, there was no obvious correlation with any other personality trait. We found no evidence of a correlation between patience and our core measure of impulsiveness (in Table A2 in the Appendix). We asked a direct question about advice-seeking, and again found no correlation with patience (in Table A3, also in the appendix). Taken as a whole this suggests that under almost all measures available from our data which might proxy for optimism we do not find significance but the results on conscientiousness might provide a note of concern: the most patient in our sample might display high levels of conscientiousness which could tilt them towards greater optimism. However, we could equally argue that those towards the low end of the patience distribution in our sample are more likely to be pessimistic but still opted to enter the kidney market.

We should pause to recognize that our data is subject to significant limitations. Any field data is by nature noisy and while we have tried to provide incentives where possible, and to follow individuals as best we can, a variety of practical and indeed political issues made data collection difficult, ranging from the practical and ethical issues involved in following kidney transplant patients (we cannot and should not be in a position to guarantee that donors will attend more than one experimental session or put them under any pressure to do so) through to periods in which political sanctions made data collection difficult. The administration attached to the NGO changed several times during our study which slowed data collection. Nevertheless we are grateful to the NGO for granting us unique and unprecedented access to the Iranian kidney market which made completion of this study possible and allowed us to collect the only data on behavioural characteristics of donors in a regulated kidney market.

Finally, we can place our findings in the context of current thinking on the ethics of having a market for kidneys. The Iranian kidney market has reduced waiting times for kidneys since its inception and has therefore saved lives. Moreover, opinions in other countries are shifting in the direction of a regulated market with a recent paper suggesting that 71% of the US population were in favour of a market once a potential system had been explained (Elias et al., 2015). In

parallel to this there has also been active discussion and research that seeks to examine the effect of monetary incentives for other health-related activities such as blood donations (Lacetera et al., 2013) and vaccinations (Weaver et al., 2014; Yamin and Gavius, 2013). Our results could be interpreted as part of a positive re-evaluation of applying economic principles within health markets. Although it is not easy to extrapolate from one culture to another with a very different history or set of values, we hope that our findings will at least provide some food for thought for those considering ways to tackle the problem of long waiting times for kidney donation. We also need to return to the original questions posed in the introduction and in particular to ask how our findings help us to better understand the trade-off identified in (Elias et al., 2015) between ethical considerations and efficiency gains (lives saved). Our results suggest that while donors are certainly financially vulnerable, they do not seem to suffer from low levels of rationality in the various comparisons that we make. Nor do they demonstrate inadequate levels of patience or have unusual risk preferences. What is perhaps highlighted by our work is that for those willing to sell a kidney the alternatives are often no better and this should be incorporated into ethical considerations. These issues shed no light on the other side of the ethical conundrum: the process itself. If a kidney market is considered, policy-makers will have to think hard about the benefits of a centralized system that may be better placed to address allocative ethical concerns but may not generate as great an increase in availability as a system that also allows bilateral transactions to take place, which returns us full circle to the literature on market design discussed in the introduction.

Acknowledgements

Ethical approval was provided by University of Warwick Humanities and Social Sciences Research Ethics Committee (ref 110/14-15). The project was pre-registered with the AEA RCT Registry (<https://doi.org/10.1257/rct.1709-1.0>). Both authors contributed equally to the production of this paper and are listed alphabetically. We would like to thank Armin Falk, Anke Becker, Thomas Dohmen, Benjamin Enke, David Huffman, and Uwe Sunde for providing us with early access to the raw data for Iran used in Falk et al. (2018).

Funding

Funding was provided by the ESRC CAGE Centre (grant reference RES-626-28-0001).

Conflicts of Interest

The authors declare no conflicts of interest.

References

- Amador-Hidalgo, Luis, Pablo Brañas-Garza, Antonio M Espín, Teresa García-Muñoz, and Ana Hernández-Román**, “Cognitive abilities and risk-taking: Errors, not preferences,” *European Economic Review*, 2021, 134, 103694.
- Anderson, Ross, Itai Ashlagi, David Gamarnik, and Alvin E. Roth**, “Finding long chains in kidney exchange using the traveling salesmen problem,” *Proceedings of the National Academy of Sciences of the United States of America*, 2015, 112 (3), 663—668.
- Andersson, Ola, Håkan J Holm, Jean-Robert Tyran, and Erik Wengström**, “Risk aversion relates to cognitive ability: Preferences or noise?,” *Journal of the European Economic Association*, 2016, 14 (5), 1129–1154.
- Ashlagi, Itai and Alvin E. Roth**, “Free Riding and Participation in Large Scale, Multi-hospital Kidney Exchange,” *Theoretical Economics*, 2014, 9, 817—863.
- Azar, SA, MR Nakhjavani, MK Tarzamni, A Faragi, A Bahloli, and N Badroghli**, “Is living kidney donation really safe?,” *Transplantation proceedings*, 2007, 39 (4), 822–823.
- Basiri, Abbas, Maryam Taheri, Alireza Khoshdel, Shabnam Golshan, Hamed Mohseni-Rad, Nasrin Borumandnia, Nasser Simforoosh, Mohsen Nafar, Majid Aliasgari, Mohammad Hossein Nourbala et al.**, “Living or deceased-donor kidney transplant: the role of psycho-socioeconomic factors and outcomes associated with each type of transplant,” *International Journal for Equity in Health*, 2020, 19, 1–11.
- Becker, Gary S and Julio J Elias**, “Cash for Kidneys: The Case for a Market for Organs,” *The Wall Street Journal*, 2014.
- Choi, Syngjoo, Shachar Kariv, Wieland Müller, and Dan Silverman**, “Who is (more) rational?,” *American Economic Review*, 2014, 104 (6), 1518–50.
- Columb, Seán**, *Trading Life: Organ Trafficking, Illicit Networks, and Exploitation*, Stanford University Press, 2020.
- Elias, Julio J., Nicola Lacetera, and Mario Macis**, “Sacred Values? The Effect of Information on Attitudes toward Payments for Human Organs,” *American Economic Review*, May 2015, 105 (5), 361–65.
- Erin, Charles A and John Harris**, “An ethical market in human organs,” *Journal of Medical Ethics*, 2003, 29 (3), 137–138.
- Falk, Armin, Anke Becker, Thomas Dohmen, Benjamin Enke, David Huffman, and Uwe Sunde**, “Global evidence on economic preferences,” *The Quarterly Journal of Economics*, 2018, 133 (4), 1645–1692.
- Feizi, Mehdi and Tannaz Moeindarbari**, “Heterogeneity of Market Structures in the Iranian Model of Kidney Transplantation,” *World Medical & Health Policy*, 2020, 12 (1), 24–31.

- Fumo, D E, V Kapoor, L J Reece, S M Stepkowski, J E Kopke, S E Rees, C Smith, A E Roth, A B Leichtman, and M A Rees**, “Improving matching strategies in kidney paired donation: the 7-year evolution of a web based virtual matching system,” *American Journal of Transplantation*, 2015, 15 (10), 2646–2654.
- Ghahramani, Nasrollah**, “Paid living donation and growth of deceased donor programs,” *Transplantation*, 2016, 100 (6), 1165–1169.
- Ghods, Ahad J and Shekoufeh Savaj**, “Iranian model of paid and regulated living-unrelated kidney donation,” *Clinical journal of the American Society of Nephrology*, 2006, 1 (6), 1136–1145.
- Hashemi, Samaneh, Mohsen Vahedi, and Shahrzad Ossareh**, “Evaluation of long-term survival and predictors of mortality in hemodialysis patients by using time dependent variables, a single centre cohort analysis,” *Iran J Kidney Dis*, 2021, 15 (5), 373–384.
- Ibrahim, Hassan N, Robert Foley, LiPing Tan, Tyson Rogers, Robert F Bailey, Hongfei Guo, Cynthia R Gross, and Arthur J Matas**, “Long-term consequences of kidney donation,” *New England Journal of Medicine*, 2009, 360 (5), 459–469.
- ILNA**, “The Average Annual Income in Urban Area,” <https://www.ilna.news/fa/tiny/news-908072> (accessed 26/07/2021), 2020.
- , “Iranian Workers’ Wages Cross-country Comparisons,” www.ilna.news/fa/tiny/news-1064206 (accessed: 26/07/2021), 2021.
- IRNA**, “Head of the Center for Transplant Management of the Ministry of Health of Iran’s Press Conference,” www.irna.ir/news/83104237/ (accessed 26/07/2021), 2018.
- Kidney Foundation of Iran**, “Kidney Foundation of Iran’s Press Conference,” <http://www.irankf.com/news/149/> (accessed 26/07/2021), 2018.
- Krudy, Edward**, “Nobel winner Roth helped spark kidney donor revolution,” *Reuters*, 2012.
- Lacetera, Nicola, Mario Macis, and Robert Slonim**, “Economic Rewards to Motivate Blood Donations,” *Science*, 2013, 340 (6135), 927–928.
- Mahdavi-Mazdeh, Mitra**, “The Iranian model of living renal transplantation,” *Kidney international*, 2012, 82 (6), 627–634.
- Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao**, “Poverty impedes cognitive function,” *Science*, 2013, 341 (6149), 976–980.
- Moghaddasi Kelishomi, Ali and Daniel Sgroi**, “Understanding the motivation of organ donors in the Iranian organ market,” *AEA RCT Registry*, 2017.
- and —, “Cognitive ability and risk preferences in a developing nation: Findings from the field,” *Economics Letters*, 2022, 216 (110576).

- Nafar, Mohsen, Mohammad Aghighi, Nooshin Dalili, and Behrang Alipour Abedi**, “Perspective of 20 years hemodialysis registry in Iran, on the road to progress,” *Iranian Journal of Kidney Diseases*, 2020, 14 (2), 95.
- NHS**, “National Health Service Transplant Activity Report,” <https://www.organdonation.nhs.uk/helping-you-to-decide/about-organ-donation/statistics-about-organ-donation/transplant-activity-report/> (accessed 17/05/2024), 2024.
- OPTN**, “Organ Procurement and Transplantation Network National Data,” <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data>, 2024.
- Puthillam, Arathy**, “Psychology’s WEIRD Problem,” *Psychology Today* (<https://www.psychologytoday.com/us/blog/non-weird-science/202004/psychologys-weird-problem>), 2020.
- Rammstedt, B. and O. P. John**, “Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German,” *Journal of Research in Personality*, 2007, 41, 203–212.
- Reese, Peter P, Neil Boudville, and Amit X Garg**, “Living kidney donation: outcomes, ethics, and uncertainty,” *The Lancet*, 2015, 385 (9981), 2003–2013.
- Roth, Alvin E.**, “Transplantation: One Economist’s Perspective,” *Transplantation*, 2015, 99 (2), 261—264.
- SCI**, “Statistical Center of Iran (SCI) Households Income and Expenditure Survey,” <https://www.amar.org.ir/english/Metadata/Statistical-Survey/Household-Expenditure-and-Income> (accessed 26/07/2021), 2018.
- SCI**, “The Average Annual Income in Urban Area,” <https://bit.ly/3xucogo> (accessed 26/07/2021), 2021.
- Shadnough, Mahdi, Marzieh Latifi, Habib Rahban, Elahe Pourhosein, Alireza Shadnough, Arefeh Jafarian, and Sanaz Dehghani**, “Trends in organ donation and transplantation over the past eighteen years in Iran,” *Clinical Transplantation*, 2023, 37 (2), e14889.
- Sharpe, J Patrick, Nicholas R Martin, and Kelly A Roth**, “Optimism and the Big Five factors of personality: Beyond neuroticism and extraversion,” *Personality and individual differences*, 2011, 51 (8), 946–951.
- Shimazono, Yosuke**, “The state of the international organ trade: a provisional picture based on integration of available information,” *Bulletin of the World Health Organization*, 2007, 85, 955–962.
- Simforoosh, Nasser, Abbas Basiri, Ali Tabibi, and Mohammad Nadjafi-Semnani**, “Living Unrelated Kidney Transplantation: Does It Prevent Deceased-Donor Kidney Transplantation Growth?,” *Experimental and Clinical Transplantation*, 2019, 17 (Suppl 1), 250–253.
- Spinella, Marcello**, “Normative data and a short form of the Barratt Impulsiveness Scale,” *International Journal of Neuroscience*, 2007, 117, 359–368.

Stewart, Darren, Tatenda Mupfudze, and David Klassen, “Does anybody really know what (the kidney median waiting) time is?,” *American Journal of Transplantation*, 2023, 23 (2), 223–231.

Weaver, Tim, Nicola Metrebian, Jennifer Hellier, Stephen Pilling, Vikki Charles, Nicholas Little, Dilkushi Poovendran, Luke Mitcheson, Frank Ryan, Owen Bowden-Jones, John Dunn, Anthony Glasper, Emily Finch, and John Strang, “Use of contingency management incentives to improve completion of hepatitis B vaccination in people undergoing treatment for heroin dependence: a cluster randomised trial,” *The Lancet*, 2014, 3840 (9938), 153–163.

Yamin, Dan and Arie Gavious, “Incentives’ Effect in Influenza Vaccination Policy,” *Management Science*, 2013, 59 (12), 927–928.

Yousefi, Mahmood, Satar Rezaei, Sakineh Hajebrاهيمi, Niloofar Falsafi, and Fatemeh Keshvari-Shad, “Peritoneal dialysis vs. hemodialysis among patients with end-stage renal disease in Iran: which is more cost-effective?,” *BMC nephrology*, 2024, 25 (1), 85.

Zurga, Sabrina, “Why We Need a Market for Organs,” *The Huffington Post*, 2016.

Tables & Figures

Table 1: Behavioural Characteristics by Attrition Status

	mean Unknown-Status	mean Known-Status	Diff.	S.D	# Obs.
Math	1.478261	1.296703	0.182	0.235	137
IQ	3.586957	3.142857	0.444	0.484	137
Risk taking	14.3	13	1.300	1.680	134
Patience	14.46667	11.0625	3.404	2.076	133
Rationality	.8154983	.8675437	-0.052*	0.028	137

Notes. This table compares mean response/score in different tasks of the pre-donation participants with the unknown final status (column 1) and known final status (column 2).

Table 2: Participants in the Experiment

Post-Donation	Pre-Donation					Total
	Donated	Medical Problem	Change mind	Status Unknown	Pre-Total	
78	35	30	26	46	137	215

Notes. Post-donation participants were interviewed after the transplant surgery and pre-donation participants were interviewed for the first time prior to transplant surgery. The pre-donation status refers to participants status when they were contacted a second time to confirm their final status in February 2021.

Table 3: Demographics & Socioeconomic Information

	Total	Pre-Donation	Post-Donation
<i>Female (%)</i>	18.6	19.7	16.7
<i>Age (%)</i>			
21-32	54.9	59.1	47.4
32+	45.1	40.9	52.6
<i>Education (%)</i>			
Low	42.4	43	41.3
Medium	43.3	40.7	48
High	14.3	16.30	10.7
<i>Employment (%)</i>			
Employed	49.5	47.5	53.3
<i>Income (Iranian Rials)</i>			
Monthly indi. income	14,356,570	13,798,410	15,333,300
Monthly house. income	15,205,690	15,170,510	15,266,670
<i>Household Composition (%)</i>			
Married	79.1	75.9	85.9
Number of children	2	1.9	2.2
<i>Religious attitudes (%)</i>			
Always practice	29.8	23.4	42.6
Sometimes practice	53.7	59.8	41.2
Never practice	16.6	16.8	16.2
<i>Home ownership (%)</i>			
Owner	5.5	2.9	10.9
Renting	72.5	72.8	71.9
Living with parents	22	24.3	17.2
<i>Car ownership (%)</i>	8.7	3.7	20
<i>Insurance (%)</i>			
Insured	52.9	46.3	65.3
Observations	215	137	78

Notes. In education categories, low refers to secondary and below (0-8 years of schooling), medium refers to high school and diploma (9-12 years of schooling), and high refers to tertiary education in Iran.

Table 4: Summary Statistics

	mean	# Obs.	S.D.	min	max
Organ Market Participants					
Math	1.34	215	1.28	0	4
IQ	3.21	215	2.71	0	13
Risk taking	13.93	210	9.76	1	32
Patience	13.07	205	11.79	1	32
Rationality	0.847	215	0.160	0.22223	0.99994
Iranian Population					
Risk taking	16.12	2463	10.94	1	32
Patience	3.84	2472	6.96	1	32

Notes. The upper panel is the summary statistics of the variables from the organ market participants sample and the lower panel observations are from Falk et al. (2018) with values re-weighted in accordance with the sampling weights to achieve representatives.

Table 5: Participation in the Iranian Organ Market

	(1)	(2)
Male	0.691*** (0.083)	0.735*** (0.097)
Age	-0.019*** (0.002)	-0.019*** (0.002)
Risk taking		-0.013*** (0.004)
Patience		0.052*** (0.004)
<i>N</i>	2722	2644

Notes. Probit estimates of the participation in the Iranian organ market with standard errors in parentheses. For this estimation, we have pooled the GPS data (non market participants) with the organ data, from session 1, (market participants). Statistical significance is indicated as follows: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ with precise numbers given in the main text.

Table 6: Evaluating the Effects

	Mean	Std. Error	95% Conf. Interval	
Longitudinal Comparison				
Dif. IQ	-0.500	0.552	-1.693	0.693
Dif. Rik taking	2.821	3.204	-4.099	9.742
Dif. Patience	-0.393	1.872	-4.438	3.652
Dif. Rationality	0.043	0.047	-0.059	0.145
Pseudo-longitudinal Comparison				
Dif. IQ	0.123	0.556	-0.979	1.225
Dif. Risk taking	-1.704	2.138	-5.940	2.532
Dif. Patience	-7.263***	2.374	-11.965	-2.560
Dif. Rationality	0.007	0.035	-0.063	0.076

Notes. Paired t-test results. N=14 in the longitudinal comparison which compares the behavioural characteristics before and after transplantation. N=113 in the pseudo-longitudinal comparison which compares the behavioural characteristics of participants who had not donated their kidney at the time of their first session but eventually proceed with the transplantation, the pre-surgery group, and while those who had donated their kidney before attending the first session, the post-surgery group. The first column presents the mean change (where the post-surgery value is deducted from the pre-surgery value) in each measures. Statistical significance is indicated as follows: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ with precise numbers given in the main text.

Table 7: Probit model: Likelihood to Proceed with Transplantation

	(1)	(2)	(3)
Male	0.007 (0.413)	0.061 (0.478)	0.369 (0.501)
Age	-0.049 (0.036)	-0.025 (0.044)	-0.037 (0.046)
Math		-0.078 (0.187)	-0.073 (0.197)
IQ		-0.006 (0.103)	0.014 (0.105)
Risk taking		-0.008 (0.021)	-0.007 (0.021)
Patience		-0.038** (0.018)	-0.039** (0.018)
Rationality		-0.257 (1.036)	-0.402 (1.075)
Blood donation			-0.136 (0.376)
Organ form			0.873** (0.414)

Notes. Probit estimates of proceeding with the transplantation. N=58. The sample includes “donated” and “changed mind” groups from the pre-donation sub-sample from Table (2). The dependent variable is a dummy that takes the value 1 if the participants belong to the “donated” group and 0 if they belong to the “changed mind” group. Statistical significance is indicated as follows: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ with precise numbers given in the main text.

Table 8: How do donors differ from the general population?

	(1)	(2)
male	0.512*** (0.157)	0.512*** (0.161)
age	-0.017*** (0.003)	-0.016*** (0.003)
Risk taking		-0.011 (0.007)
Patience		0.023*** (0.007)
<i>N</i>	2542	2474

Notes. Probit estimates of the participation in the Iranian organ market with standard errors in parentheses. For this estimation, we have pooled the GPS data (as non-donors) with the organ data, “donated” group from the pre-donation sub-sample in Table (2), (as donors). Results are similar when we add post-donation group to the donated group as donors. The coefficient on the patience variable increases to 0.045 and is still significant at the 1% level. Statistical significance is indicated as follows: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ with precise numbers given in the main text.

Table 9: What the Donors spent the money on (%)

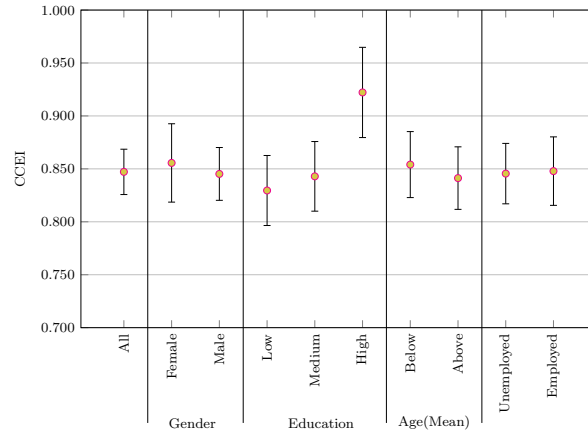
Long Term				Short Term			
Pay Debt(1)	Rental Deposit(2)	Buy a Car(3)	(1)&(2)	Medical Emergency(4)	Other Expenses(5)	(1)&(4)	(2)&(5)
34	26	7	16	4	9	3	1

Notes. Total of 76 participants answered the question. Of which 62 are from the post-donation group, 7 from the pre-donation, donated group, and 7 from other participants in the pre-donation group.

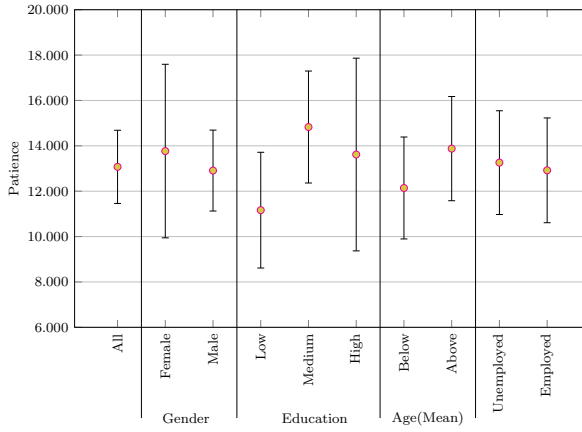
Table 10: Regional Averages of Patience and Risk taking from the GPS data

Region	Patience	Risk Taking	# Obs.
Iran	- 0.38	0.34	1
Middle East and North Africa	- 0.14	0.16	9
Western Europe	0.49	- 0.11	11
Eastern Europe	- 0.12	- 0.12	16
Neo-Europe	0.73	0.15	3
South and East Asia	- 0.00	- 0.10	13
Sub-Saharan Africa	- 0.16	0.34	11
South America	- 0.21	- 0.03	13

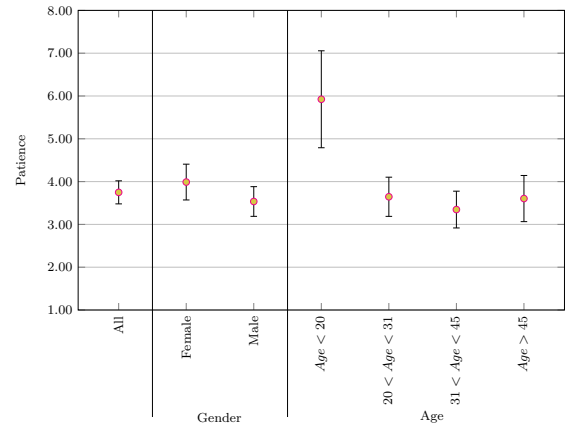
Notes. This table reproduces Table (3) of (Falk et al., 2018, p. 1663). Neo-Europe includes the United States, Canada, and Australia. Regional averages of each preference are expressed in terms of standard deviations from the world individual mean. See <https://www.briq-institute.org/global-preferences/home>



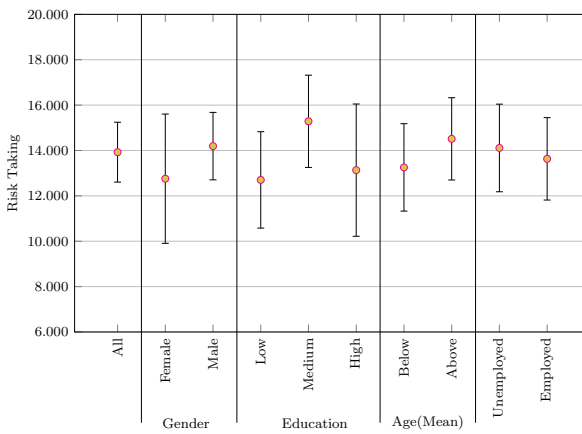
(a) CCEI Scores for Kidney Donors



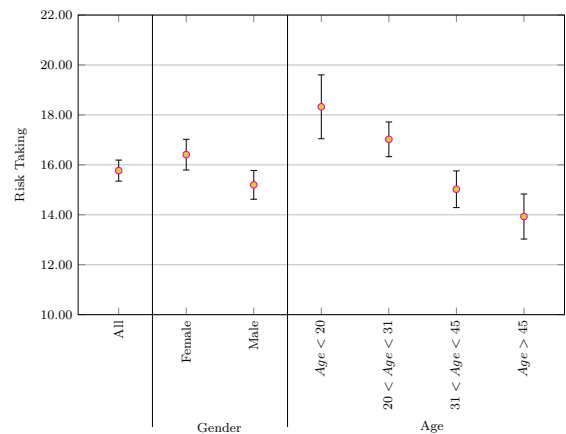
(b) Mean Patience Level for Kidney Donors



(c) Mean Patience Level for Iranian Population

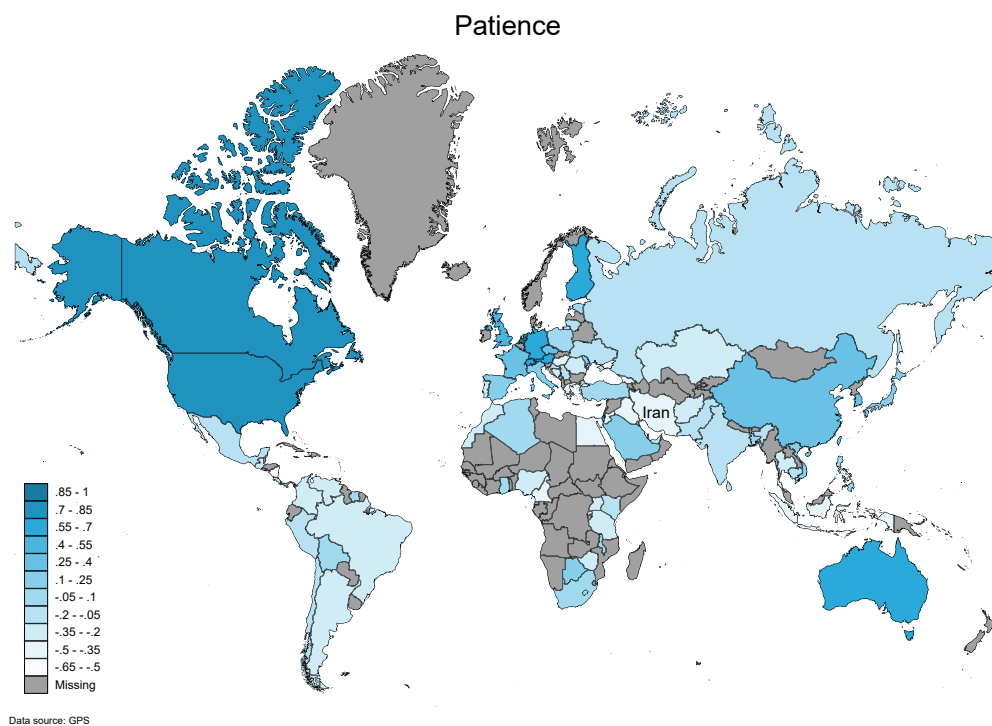


(d) Mean Risk-Taking Level for Kidney Donors

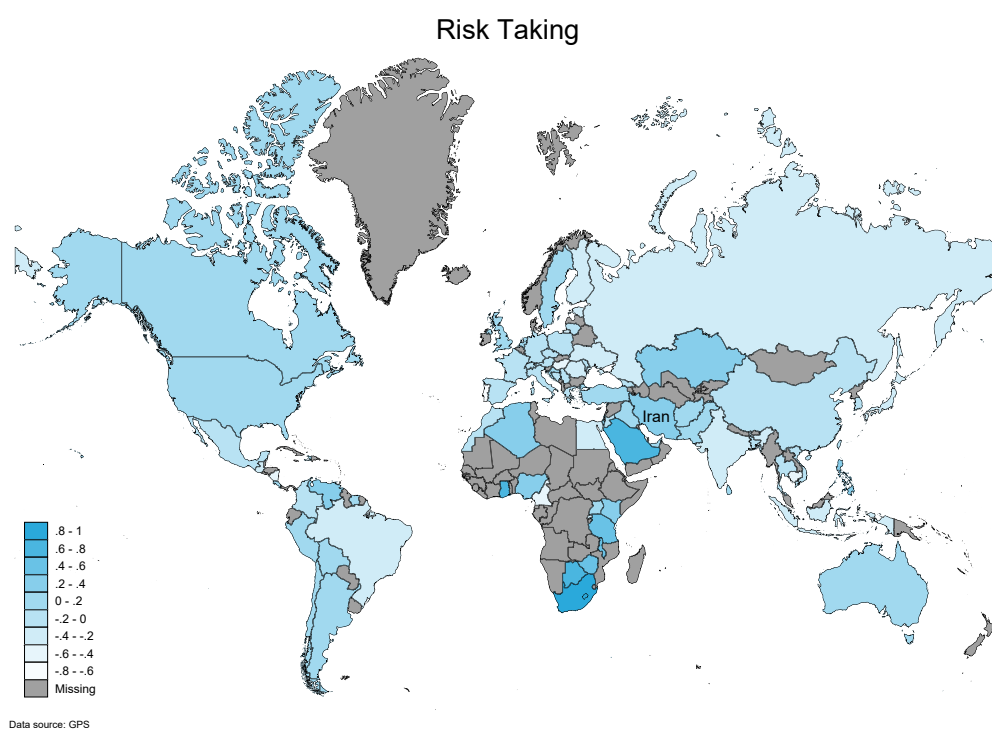


(e) Mean Risk-Taking Level for Iranian Population

Figure 1: CCEI Scores, Mean Patience Level, and Mean Risk-Taking Level for Kidney Donors and the Iranian Population



(a)



(b)

Figure 2: World Maps of Patience and Risk Taking. This figure reproduces Figure (1) on page 1661 of Falk et al. (2018).

Online Appendix

Additional Tables & Figures

Table A1: Correlation between Patience and Big 5 Personality Traits

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Patience	1.000					
(2) Big5_Extraversion	-0.015	1.000				
(3) Big5_Agreeableness	-0.009	0.055	1.000			
(4) Big5_Conscientiousness	-0.184***	0.076	-0.023	1.000		
(5) Big5_Neuroticism	-0.035	0.128*	0.197***	-0.060	1.000	
(6) Big5_Openness	-0.051	-0.242***	0.203***	0.251***	-0.038	1.000

Notes. The Big5_* correspond to the Big Five Personality factors and are derived from a 10-item short version of the Big Five Personality Inventory. The sample includes all participants in the Kidney market. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A2: Correlation Between Patience and Impulsiveness (BIS measure) and its Components

Variables	(1)	(2)	(3)	(4)	(5)
(1) Patience	1.000				
(2) BIS	-0.030	1.000			
(3) BIS_m	-0.059	0.609***	1.000		
(4) BIS_a	-0.033	0.687***	0.521***	1.000	
(5) BIS_np	-0.026	-0.372***	0.266***	0.317***	1.000

Notes. The BIS measures impulsiveness and is derived from a 15-item version of Barratt Impulsiveness Scale. The BIS components, BIS_m, BIS_a, and BIS_np correspond to Motor Impulsiveness, Attentional Impulsiveness, and Non-planning Impulsiveness, respectively. The sample includes all participants in the Kidney market. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A3: Correlation Between Patience and Seeking Advice

Variables	(1)	(2)	(3)
(1) Patience	1.000		
(2) Advice	-0.021	1.000	
(3) Advice_Important	0.045	0.321***	1.000

Notes. The variable Advice is a dummy that takes the value 1 if the participant sought advice from others before deciding whether to donate or not, and 0 if they didn't seek advice. The variable Advice_Important is a dummy variable, taking the value of 1 if the advice sought by the participant before making a donation was deemed important, and 0 if it was not considered important. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A4: Mean differences in IQ, Math, and CCEI scores between different respondents.

	IQ	Math	CCEI	IQ	Math	CCEI
	immediately			after 6 months		
	negative impact on life					
No	-0.569 (0.512)	0.013 (0.241)	0.027 (0.030)			
Don't know	-0.541 (0.581)	-0.270 (0.273)	-0.007 (0.033)			
Yes	3.711*** (0.443)	1.421*** (0.208)	0.835*** (0.026)			
	will ever fully recover					
No	-0.084 (0.594)	-0.267 (0.281)	0.011 (0.035)			
Don't know	-0.961** (0.414)	-0.533*** (0.196)	-0.030 (0.024)			
Yes	3.739*** (0.323)	1.681*** (0.153)	0.860*** (0.019)			
	physical condition deteriorate					
No	-1.026** (0.497)	-0.001 (0.239)	-0.011 (0.030)			
Don't know	-1.636*** (0.447)	-0.339 (0.215)	-0.012 (0.027)			
No				-1.430** (0.550)	0.242 (0.266)	-0.005 (0.033)
Don't know				-1.739*** (0.476)	-0.213 (0.230)	-0.018 (0.028)
Yes	4.268*** (0.354)	1.518*** (0.170)	0.854*** (0.022)	4.548*** (0.407)	1.405*** (0.197)	0.861*** (0.024)
	employment prospect					
No change	0.370 (0.418)	0.403** (0.198)	0.015 (0.025)			
Worsen	0.192 (0.559)	0.034 (0.264)	0.004 (0.033)			
Yes				-0.082 (0.385)	-0.329* (0.181)	-0.006 (0.022)
Reference Group	3.014*** (0.320)	1.143*** (0.151)	0.839*** (0.019)	3.255*** (0.279)	1.521*** (0.131)	0.851*** (0.016)

Notes: The table shows the differences in mean IQ, math, and the CCEI scores among respondents who were asked different questions regarding the adverse effects of donation. The last row in each panel shows the mean score in the reference group for each question. The answer “Yes” in the last panel refers to those respondents who replied there will be an adverse employment effect after 6 month. The “reference group” in this panel refers to “get better” for columns 1-3 and ‘no’ for columns 4-6. Standard errors are reported in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

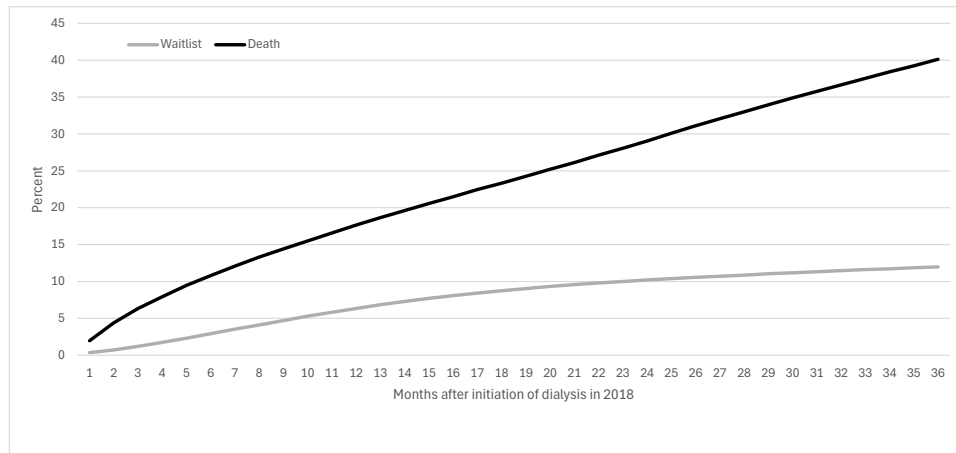


Figure A1: Cumulative incidence of kidney transplant wait-listing and death in the 3 years following dialysis initiation in 2018. Figure reproduced from <https://usrds-adr.niddk.nih.gov/2023/end-stage-renal-disease/7-transplantation>

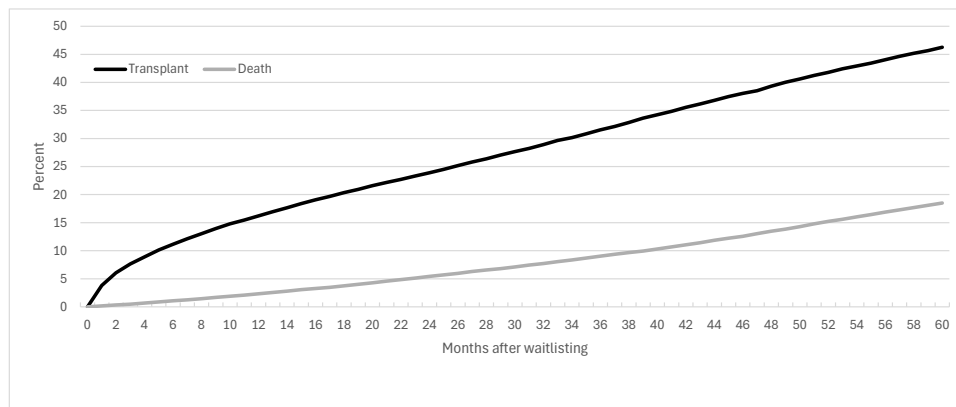


Figure A2: Cumulative incidence of receiving a kidney transplant or of dying within 5 years after wait-listing in 2016 for patients with ESRD. Figure reproduced from <https://usrds-adr.niddk.nih.gov/2023/end-stage-renal-disease/7-transplantation>

Experimental Script

The experimental script is divided into 3 parts.

Part 1 reproduces the information form initially a version translated into English together with the original version in Persian.

Part 2 reproduces the consent form translated into English.

Part 3 provides the full experimental script including the full content of all 11 tasks translated into English.

Part 1: Information Form (translated into English)

Information for participants

The project

The project is being run by the Economics department of the University of Warwick. We plan to carry out a series of experimental sessions with a number of subjects which will involve completing a series of simple questionnaires and tasks. The results of these sessions will hopefully lead to the production of one or more academic research papers.

Your participation

If you agree to participate in the project, we will ask you to attend a session in which you may be asked to complete a number of questionnaires and attempt a number of tasks. You will be paid both a show-up fee and a supplement based on your performance in the tasks you undertake.

The entire process will be entirely anonymous from the very start - your answers and performance will be linked to an ID number and not your true name (for example you may be “subject ID06”. There will be no way of linking your true identity to any of the data we have collected.

The anonymous data generated in the session will be used as the basis for at least one academic paper, and possibly more. Since the data is anonymous from the moment the study starts it will be impossible

for anyone to link you to the data that is used so your name or identity will never appear in any work related to this research.

You will be asked to sign a consent form if you agree to take part in the study and a receipt at the point when you are paid. Both of these documents will be kept in a secure location for 10 years following the end of the study and then destroyed.

Participation in the project is entirely voluntary and you have the right to withdraw at any point without giving any reason. However, if you do end your participation early you may receive a reduced payment since the payment is in part performance-related.

Potential benefits

You will receive a show-up fee and an additional fee dependent upon your performance in the tasks during the session. More details about the nature of the payment will be made available during the session when you are provided with further instructions. To give an example, similar sessions in the past have typically resulted in payments in the range of 300,000-750,000 Rials for the session and you will always receive the show-up fee of 200,000 Rials irrespective of your performance during the session.

Complaints

It is up to you whether or not you take part in this interview. Nothing negative will happen if you decide not to take part. Your views are important to us and we hope you will agree to take part. Should you have any complaints relating this study conducted by a University of Warwick, please contact the Deputy Registrar: Jo Horsburgh (J.Horsburgh@warwick.ac.uk) Deputy Registrar, Deputy Registrar's Office, University of Warwick Coventry, CV4 8UW. PA– Natasha Lynch (Tel: +44 24 765 22706; n.lynch@warwick.ac.uk)

Please also see: www2.warwick.ac.uk/services/rss/researchgovernance/complaint_procedure

Information Form in Persian

اطلاعاتی برای مشارکت‌کنندگان در طرح

طرح

این طرح تحقیقاتی توسط دانشکده اقتصاد دانشگاه واریک (University of Warwick) اجرا می‌شود. هدف ما برگزاری تعدادی جلسه شامل پرسشنامه‌ها و تستهای ساده با اهدا کنندگان کلیه می‌باشد. نتایج این جلسات در نهایت منجر به تولید یک یا چند مقاله پژوهشی-دانشگاهی خواهد شد.

مشارکت شما

در صورت موافقت شما با همکاری در این پروژه تحقیقاتی، ما از شما خواهیم خواست که با در ادامه تعدادی پرسشنامه را پر کرده و چند تست ساده را بگذرانید. ابتدا صرفاً جهت شرکت در جلسه مبلغی به شما پرداخت خواهد شد. همچنین با توجه به عملکرد شما در پاسخ دادن به تستها نیز مبالغ دیگری، جدای از مبلغ اولیه، به شما پرداخت خواهد شد.

تمامی مراحل انجام پروژه از ابتدا تا انتها بصورت ناشناس انجام خواهد شد، یعنی در همه مراحل جوابها و عملکرد شما نه با نام شما بلکه با یک شماره خاص مرتبط خواهد شد (مثلاً مشارکت کننده شماره ۶). در نهایت اسم شما به هیچ عنوان در داده‌هایی که ما جمع‌آوری خواهیم کرد بکار برده نخواهد شد.

داده‌های جمع‌آوری شده بصورت ناشناس برای نوشتن یک و یا چند مقاله علمی مورد استفاده قرار خواهد گرفت. از آنجا که این داده‌ها از ابتدا بصورت ناشناس جمع‌آوری می‌گردد، به هیچ عنوان کسی نخواهد توانست که این داده‌ها را مرتبط با نام و هویت شما بکند؛ بنابراین اسم و هویت شما در هیچ یک از تحقیقاتی که از داده‌های جمع‌آوری شده ما استفاده می‌کنند، نخواهد آمد.

اگر شما موافق مشارکت در این مطالعه باشید، از شما درخواست خواهد شد که فرم رضایت و همچنین رسید پرداخت، بعد از پرداخت پول، را امضا کنید. هر دو این اسناد به مدت ۱۰ سال بعد از اتمام این پروژه در یک مکان امن نگهداری شده و آنگاه از بین خواهند رفت. مشارکت در این پروژه کاملاً داوطلبانه می‌باشد و شما مختارید که در هر مرحله‌ای از اجرای آن، بدون اعلام دلیل، انصراف دهید. هر چند، از آنجایی که مقداری از مبلغ پرداختی مرتبط با عملکرد شما در پاسخ دادن به تستها می‌باشد، در صورتی که مشارکت شما نیمه تمام باقی بماند، مبلغ پرداختی به شما کمتر خواهد بود.

منافع بالقوه برای شما

شما بخاطر مشارکت در طرح یک مبلغ اولیه دریافت خواهید کرد. علاوه یک مبلغ اضافه که بستگی به عملکردتان در انجام تستها در طول جلسه دارد. جزییات بیشتر مرتبط با نحوه‌ی پرداختها در طول جلسه به اطلاع شما خواهد رسید. بعنوان مثال، در جلسات مشابه قبلی، مبالغی بین ۳۵ هزار تومان تا ۷۰ هزار تومان برای یک جلسه پرداخت شده است و شما جدای از عملکردتان در جلسه، صرفاً برای مشارکت در مطالعه مبلغ ۲۰ هزار تومان دریافت خواهید کرد.

شکایات

مشارکت در این طرح کاملاً در اختیار شماست. عدم تمایل شما به مشارکت هیچ بار منفی برای شما نخواهد داشت. نظر شما برای ما محترم خواهد بود، هر چند امیدواریم که در این طرح مشارکت کنید. لطفاً در صورت داشتن هر شکایتی مرتبط با اجرای این مطالعه توسط دانشگاه واریک، با ایمیل زیر تماس بگیرید:

Jo Horsburgh (J.Horsburgh@warwick.ac.uk)

Deputy Registrar, Deputy Registrar's Office, University of Warwick

Coventry, CV4 8UW

PA – Natasha Lynch (Tel: +44 24 765 22706; n.lynch@warwick.ac.uk)

لطفاً همچنین به لینک زیر مراجعه کنید: www2.warwick.ac.uk/services/rss/researchgovernance/complaints_procedure/

Part 2: Consent Form

I confirm that I have read and understood the information sheet dated [DATE] which I may keep for my records.

I agree to take part in the above study and am willing to take part in the session dated [DATE] which may involve undertaking a number of tasks and/or completing a number of questionnaires.

I understand that the data generated during the session will be entirely anonymous so my name and identity will not be linked to the data that is generated.

I understand that my anonymous data may also be used for future research.

I understand that my participation is voluntary and that I am free to withdraw at any time.

Name of person taking consent:

Date:

Please complete the part below

Name of participant:

Signature:

Part 3: Main Tasks

Task 1

This section consists of 12 questions. Please answer all the questions to the best of your ability.

1.1- How would you rate your happiness at the moment? (1-7)

Note: 1 is completely sad, 2 is very sad, 3 is fairly sad, 4 is neither happy nor sad, 5 is fairly happy, 6 is very happy, 7 is completely happy

1.2- Are you male or female? (m/f) 1-Male 2-Female

1.3- What is your age? (years,months) (yymm)

1.4- How many siblings do you have?

1.5- What is your religion? 1- Islam-Shiite 2-Islam-Sunni 3-Islam 4-Christian 5-None 6-Others

1.6- Do you pray or fast during Ramadan? 1- Always 2- Sometimes 3-Never

1.7- Are you married? (y/n) 1-Yes 2- No 3- Divorced

1.8-Do you have children? (y/n) 1-Yes 2- No

1.9- What is your highest level of education?

(1) Elementary school (2) Secondary school (3) High school (4) Diploma (5) Upper diploma (6) Bachelor and higher (7) Illiterate

1.10- Have you ever donated blood before? 1-Yes 2- No

1.11- Do you plan to donate organs after the event of your death? 1-Yes 2- No

1.12- Do you know the how much someone who donates his kidney earns?

Task 2

Please answer the following questions to the best of your ability.

2.1- Have you ever been employed? 1-Yes (Go to 2.2) 2-No (Go to 2.9)

2.2- Are you currently employed? 1- Yes (Go to 2.3) 2-No (Go to 2.5)

If you are employed:

2.3 What is your current monthly salary?

2.4 What is your job title?

Go to 2.9

If you are unemployed:

2.5 What was your last monthly salary?

2.6 What was your job title?

2.7 When did you leave that employment (unemployment duration in month)?

2.8 For what reason?

2.9 Do you own a house or rent a place: 1- Own 2- Rent 3-Live with parents

2.10-Do you own a car? 1-Yes 2-No

If you are married:

2.11- Is your wife/husband employed? 1-Yes 2- No

2.12- What is their monthly salary?

2.13- Suppose we are willing to give you some money to change your decision. What's the minimum amount that makes you happy to do so?

2.14- Do you know anyone around you who has donated his/her kidney before? 1-Yes 2-No

2.15- Did you discuss the decision to donate your kidney with anyone?

1-Yes, and they were okay with it. 2-Yes, and they were not happy with it. 3- No

2.16- How important was the advice of others when making the decision? 1-very important, 2-important, 3-not important.

2.17- How much you were paid for your kidney?

2.18- Were you happy to still donate your kidney if the receiver was not an Iranian? 1-Yes, 2-No

2.19- Were you happy to still donate your kidney for 10 percent less than the amount that you have received? 1-Yes 2-No

2.20- Are you happy to sign the organ donation for at the end of this session? 1- Yes, 2-No

Task 3

3.1- Do you expect your happiness level to fall after the operation has been completed? 1-Yes, 2-No

3.2- How would you rate your happiness after the operation is complete? (1-7)

Note: 1 is completely sad, 2 is very sad, 3 is fairly sad, 4 is neither happy nor sad, 5 is fairly happy, 6 is very happy, 7 is completely happy

3.3- How about 6 months after the operation? (1-7)

Note: 1 is completely sad, 2 is very sad, 3 is fairly sad, 4 is neither happy nor sad, 5 is fairly happy, 6 is very happy, 7 is completely happy

3.4- What other alternatives you considered to selling your kidney?

1-Bank loan 2- Borrowing from family and friends 3- Sell my assets (house, car, jewellery, etc) 4- No alternative

3.5- Do you think you will ever fully recover? 1- Yes, 2-No, 3- I don't know

3.6- What is your blood type?

A+ A- B+ B- O+ O- AB+ AB-

3.7- Do you think your physical condition will deteriorate after the donation? 1- yes, 2-No 3- I don't know

3.8 How about 6 months later? 1- Yes, 2- No, 3- I don't know

3.9- Do you think your life will be negatively affected by the operation? 1- Yes, 2- No, 3- I don't know

3.10- How do you think your employment prospects will change immediately after the operation? 1- Improved 2- Worsened 3- No effect

3.11- How about 6 months later? 1- Improved 2- Worsened 3- No effect

3.12- Do you have any health insurance? 1- Social Security 2- Health Insurance 3- Iranian Health Insurance 4- Not insured

3.13- Under which of the following conditions you will be willing to change your donation decision?

1-A bank loan of 100 million Rials, 3 years payment length, and maximum of ... percent interest rate

2-Leasing a Saipa's Pride, payment in 5 years, and maximum monthly payment of

3.14- Any similar conditions as above?

Task 4

Please do your best to answer the following questions – you will be paid 10000 Rials per correct answer.

You may use a pencil and paper to help answer the questions but no calculators. There is also an example provided:

Example: You know that your chance to win 5000 RLS in a gamble is 10%. If you repeated this many times what would you make on average in each gamble.

Answer: 500 RLS.

4.1- What's 30% of 200,000 Rials?

4.2- You know that your chance to win 5000 Rials in a gamble is 30%. If you repeated this many times what would you make on average in each gamble?

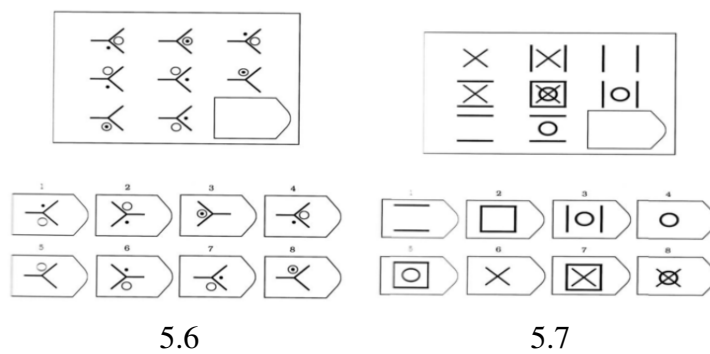
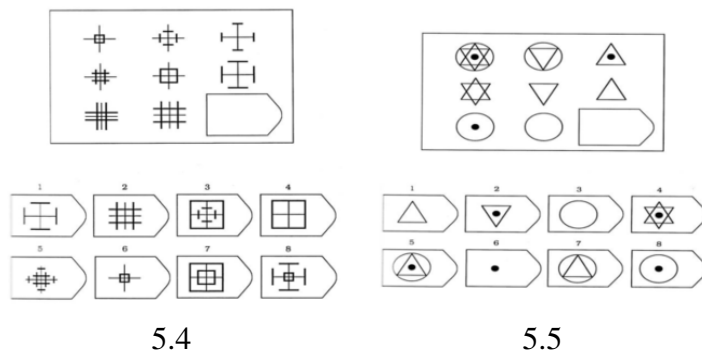
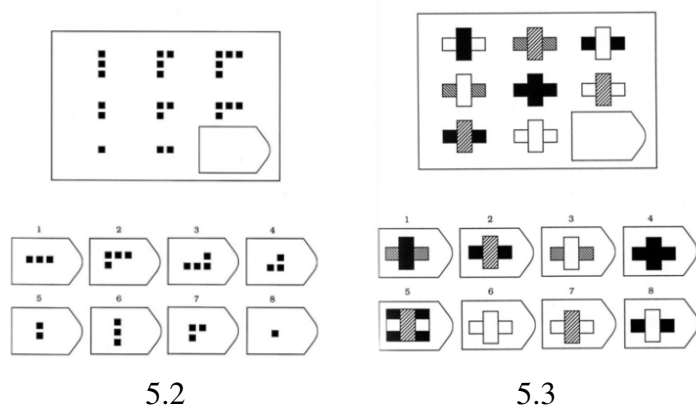
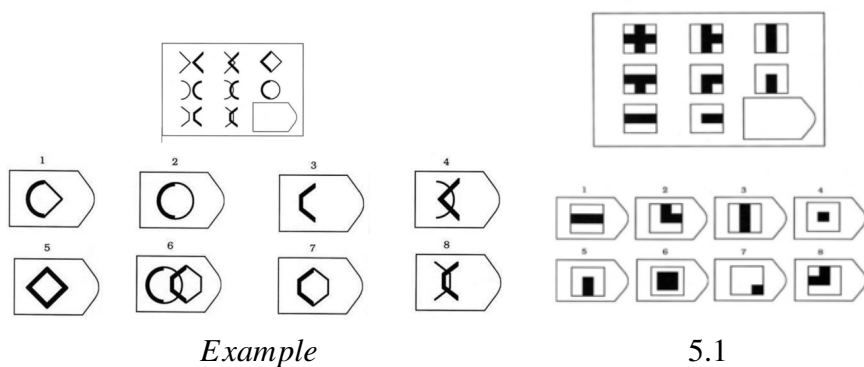
4.3- The original price of a coat is 200000 RLS and you pay 150000 RLS for it. Calculate the percentage discount?

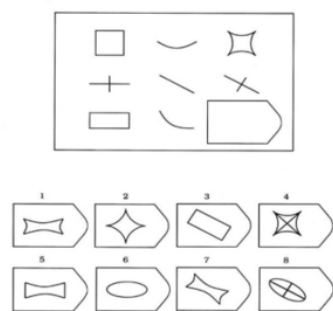
4.4- Job 1 pays 5 million Rials per month. Job 2 pays 2 million per month plus 15% commission. How much would you need to sell to get paid the same as job 1?

Task 5

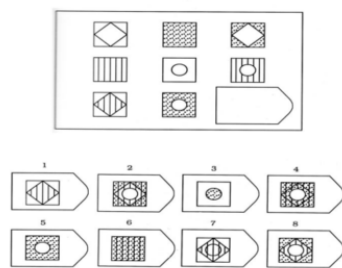
You have 8 minutes to answer all 15 questions.

Example: The correct answer in the following example is 7.

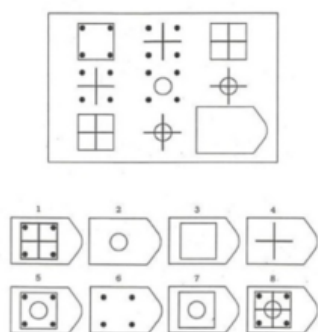




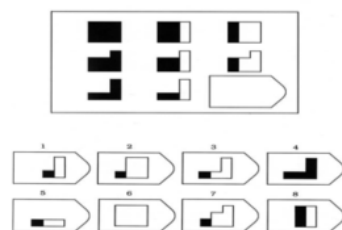
5.8



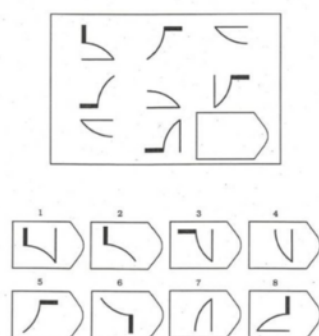
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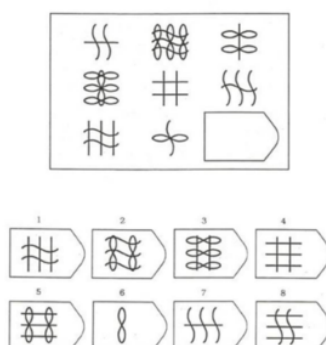
5.10



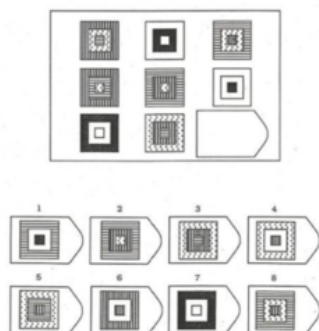
5.11



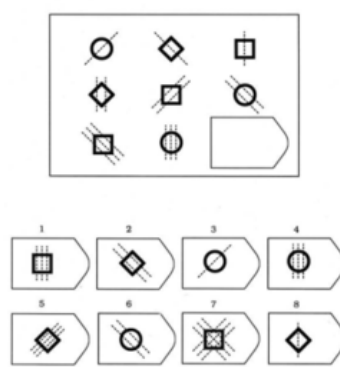
5.12



5.13



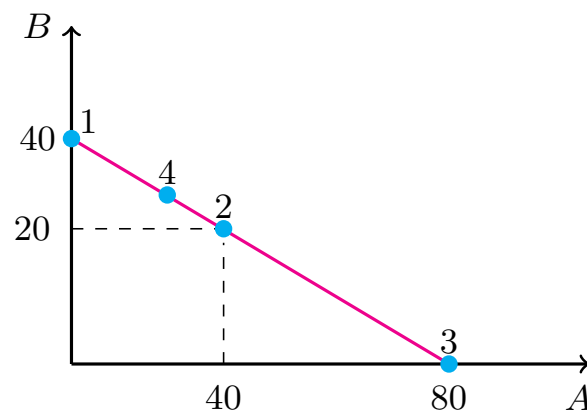
5.14



5.15

Task 6

In this section, 25 charts are shown. In each chart, your task is to distribute points between two accounts A, the horizontal axis, and B, the vertical axis. Note that every 4 points is equivalent to 10,000 Rials. In each round, after you allocate your points, the computer will randomly select one account. Each of the two accounts A and B have the same chance of being selected. Your earnings in this round then is equal to the points you have allocated to the selected account. You will be paid in cash at the end of the session. An example of the charts that you will be shown is given below:



You may choose any point on the red line, for example, points 1, 2, 3, 4 or any other points you wish. By choosing a point on the line, the points that are allocated to each account A and B are determined. For example, if you choose point 2 on the line, you allocate 40 points to account A and 20 points to account B. The probability that each of the accounts A and B is selected is the same and is 50 percent. Hence, by choosing point 2, there is a 50 percent chance that you earn 40 points (equivalent to 100,000 Rials) and 50 percent chance that you earn 20 points (50,000 Rials). If you choose point 3, then there is a 50 percent chance that you earn 80 points (200,000 Rials) and 50 percent chance that you earn 0 points (0 rials). The points are calculated at the end of the session and you will be paid what you earn. After calculating the points, a new chart will be shown. Each chart is randomly selected and is independent of your choice in the previous chart. Your task in each chart is the same as described above. A total of 25 charts like the example above will be shown. How your reward is calculated: After round 25 and the end of this activity, a chart is randomly selected by the computer from the 25 charts shown to you. The computer will randomly select a number between 1 and 25. This number is the number of the chart from which your points will be calculated and you will be paid from. In order to practice, you will first be shown 2 practice charts. You can click the start button once you are sure you do not have any problem with this

section to display the main charts.

Task 7

Start with the first question. Depending on whether the participant chooses the lottery or the safe option, go to the respective next question. This procedure is repeated four times.

Please imagine the following situation: You can choose between a sure payment and a lottery. The lottery gives you a 50 percent chance of receiving 300 thousands Rial. With an equally high chance you receive nothing. Now imagine you had to choose between the lottery and a sure payment. We will present to you have different situations. The lottery is the same in all situations The sure payment is different in every situation.

1. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 160 thousands Rial as a sure payment?

(a) lottery go to question 17

(b) sure payment go to question 2

2. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 80 thousands Rial as a sure payment?

(a) lottery go to question 10

(b) sure payment go to question 3

3. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 40 thousands Rial as a sure payment?

(a) lottery go to question 4

(b) sure payment go to question 7

4. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 60 thousands Rial as a sure payment?

(a) lottery go to question 5

(b) sure payment go to question 6

5. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 70 thousands Rial as a sure payment?

(a) lottery

(b) sure payment

6. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 50 thousands Rial as a sure payment?

(a) lottery

(b) sure payment

7. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 20 thousands Rial as a sure payment?

(a) lottery go to question 8

(b) sure payment go to question 9

8. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 30 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

9. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 10 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

10. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 120 Thousands Rial as a sure payment?

(a) lottery go to question 14

(b) sure payment go to question 11

11. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 100 Thousands Rial as a sure payment?

(a) lottery go to question 13

(b) sure payment go to question 12

12. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 90 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

13. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 110 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

14. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 140 Thousands Rial as a sure payment?

(a) lottery go to question 15

(b) sure payment go to question 16

15. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 150 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

16. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 130 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

17. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 240 Thousands Rial as a sure payment?

(a) lottery go to question 25

(b) sure payment go to question 18

18. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 200 Thousands

Rial as a sure payment?

(a) lottery go to question 22

(b) sure payment go to question 19

19. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 180 Thousands Rial as a sure payment?

(a) lottery go to question 20

(b) sure payment go to question 21

20. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 190 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

21. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 170 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

22. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 220 Thousands Rial as a sure payment?

(a) lottery go to question 23

(b) sure payment go to question 24

23. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 230 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

24. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 210 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

25. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 280 Thousands Rial as a sure payment?

(a) lottery go to question 29

(b) sure payment go to question 26

26. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 260 Thousands Rial as a sure payment?

(a) lottery go to question 27

(b) sure payment go to question 28

27. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 270 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

28. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 250 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

29. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 300 thousands Rial as a sure payment?

(a) lottery go to question 31

(b) sure payment go to question 30

30. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 290 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

31. What would you prefer: a 50 percent chance of winning 300 thousands Rial when at the same time there is 50 percent chance of winning nothing, or would you rather have the amount of 310 Thousands Rial as a sure payment?

(a) lottery

(b) sure payment

Task 8

Please answer the following question to the best of your ability.

- 8.1- What amount of money would make you indifferent to 1,000,000 Rials paid to you in 2 weeks?
- 8.2- What amount of money would make you indifferent to 1,000,000 Rials paid to you in 1 month?
- 8.3- How much money did you receive for donating your kidney from the receiver not the government?
- 8.4- Have you spent the money? 1-Yes 2-No
- 8.5- If so, please describe what you did with the money:
- 8.6- Please describe what other non-monetary compensations you have received for donating your kidney?
- 8.7 Are you on any prescribed medication for depression? (Yes/No)
- 8.8 How confident are you that if you needed a kidney yourself in the future you would be able to obtain one through the current system? Please indicate which statement below best represents your belief. (very sure that you would) (sure that you would) (uncertain) (sure that you would not) (very sure that you would not)
- 8.9 Would you recommend being a donor to family and friends who needed the money? (Yes/No)

Task 9

Start with the first question. Depending on whether the participant chooses the earlier or the delayed option, go to the respective next question. This procedure is repeated four times.

Suppose you were given the choice between the following: receiving a payment today or a payment in 2 weeks. We will now present to you have situations. The payment today is the same in each of these situations. The payment in 2 weeks is different in every situation. For each of these situations we would like to know which you would choose.

1. Would you rather receive 80 thousands Rial today or 142 thousands Rial in 2 weeks?

(a) today go to question 17 (b) in 2 weeks go to question 2

2. Would you rather receive 80 thousands Rial today or 111 thousands Rial in 2 weeks?

(a) today go to question 10 (b) in 2 weeks go to question 3

3. Would you rather receive 80 thousands Rial today or 95 thousands Rial in 2 weeks?

(a) today go to question 7 (b) in 2 weeks go to question 4

4. Would you rather receive 80 thousands Rial today or 88 thousands Rial in 2 weeks?

(a) today go to question 6 (b) in 2 weeks go to question 5

5. Would you rather receive 80 thousands Rial today or 84 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

6. Would you rather receive 80 thousands Rial today or 92 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

7. Would you rather receive 80 thousands Rial today or 103 thousands Rial in 2 weeks?

(a) today go to question 8 (b) in 2 weeks go to question 9

8. Would you rather receive 80 thousands Rial today or 107 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

9. Would you rather receive 80 thousands Rial today or 99 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

10. Would you rather receive 80 thousands Rial today or 126 thousands Rial in 2 weeks?

(a) today go to question 14 (b) in 2 weeks go to question 11

11. Would you rather receive 80 thousands Rial today or 119 thousands Rial in 2 weeks?

(a) today go to question 13 (b) in 2 weeks go to question 12

12. Would you rather receive 80 thousands Rial today or 115 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

13. Would you rather receive 80 thousands Rial today or 123 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

14. Would you rather receive 80 thousands Rial today or 134 thousands Rial in 2 weeks?

(a) today go to question 16 (b) in 2 weeks go to question 15

15. Would you rather receive 80 thousands Rial today or 130 thousands Rial in 2 weeks? (a) today (b) in 2 weeks

16. Would you rather receive 80 thousands Rial today or 138 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

17. Would you rather receive 80 thousands Rial today or 173 thousands Rial in 2 weeks?

(a) today go to question 18 (b) in 2 weeks go to question 25

18. Would you rather receive 80 thousands Rial today or 188 thousands Rial in 2 weeks?

(a) today go to question 22 (b) in 2 weeks go to question 19

19. Would you rather receive 80 thousands Rial today or 181 thousands Rial in 2 weeks?

(a) today go to question 20 (b) in 2 weeks go to question 21

20. Would you rather receive 80 thousands Rial today or 185 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

21. Would you rather receive 80 thousands Rial today or 177 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

22. Would you rather receive 80 thousands Rial today or 196 thousands Rial in 2 weeks?

(a) today go to question 23 (b) in 2 weeks go to question 24

23. Would you rather receive 80 thousands Rial today or 200 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

24. Would you rather receive 80 thousands Rial today or 192 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

25. Would you rather receive 80 thousands Rial today or 157 thousands Rial in 2 weeks?

(a) today go to question 29 (b) in 2 weeks go to question 26

26. Would you rather receive 80 thousands Rial today or 150 thousands Rial in 2 weeks?

(a) today go to question 28 (b) in 2 weeks go to question 27

27. Would you rather receive 80 thousands Rial today or 146 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

28. Would you rather receive 80 thousands Rial today or 154 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

29. Would you rather receive 80 thousands Rial today or 165 thousands Rial in 2 weeks?

(a) today go to question 31 (b) in 2 weeks go to question 30

30. Would you rather receive 80 thousands Rial today or 161 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

31. Would you rather receive 80 thousands Rial today or 169 thousands Rial in 2 weeks?

(a) today (b) in 2 weeks

Task 10

How well do the following statements describe your personality? Please indicate which reply you think fits you the best.

I see myself as someone who ...

10.1 ...is reserved

(1-disagree strongly) (2-disagree a little) (3-neither agree nor disagree) (4-agree a little) (5-agree strongly)

10.2 ...is generally trusting

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.3 ...tends to be lazy

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.4 ...is relaxed, handles stress well

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.5 ...has few artistic interests

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.6 ...is outgoing, sociable

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.7 ...tends to find fault with others

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.8 ...does a thorough job

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.9 ...gets nervous easily

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

10.10 ...has an active imagination

(disagree a little) (neither agree nor disagree) (agree a little) (agree strongly)

Task 11

For each of the following statements, please indicate which reply best describes you.

11.1 I plan tasks carefully

(rarely/never)(occasionally)(often)(almost always)

11.2 I do things without thinking

(rarely/never)(occasionally)(often)(almost always)

11.3 I don't "pay attention"

(rarely/never)(occasionally)(often)(almost always)

11.4 I concentrate easily

(rarely/never)(occasionally)(often)(almost always)

11.5 I save money on a regular basis

(rarely/never)(occasionally)(often)(almost always)

11.6 I squirm at plays or lectures

(rarely/never)(occasionally)(often)(almost always)

11.7 I am a careful thinker

(rarely/never)(occasionally)(often)(almost always)

11.8 I plan for job security

(rarely/never)(occasionally)(often)(almost always)

11.9 I say things without thinking

(rarely/never)(occasionally)(often)(almost always)

11.10 I act "on impulse"

(rarely/never)(occasionally)(often)(almost always)

11.11 I get easily bored when solving thought problems

(rarely/never)(occasionally)(often)(almost always)

11.12 I act on the spur of the moment

(rarely/never)(occasionally)(often)(almost always)

11.13 I buy things on impulse

(rarely/never)(occasionally)(often)(almost always)

11.14 I am restless at lectures or talks

(rarely/never)(occasionally)(often)(almost always)

11.15 I plan for the future

(rarely/never)(occasionally)(often)(almost always)

End of session

Thanks for your participation.