

DISCUSSION PAPER SERIES

IZA DP No. 14702

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Preferences Survey**

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## ABSTRACT

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# The Australian Twins Economic Preferences Survey

This paper describes the Australian Twins Economic Preferences Survey (ATEPS). The dataset comprises a wide variety of preference and behavioral measures (risk aversion, impatience, ambiguity aversion, trust, confidence) elicited using incentivised decision tasks. 1,120 Australian adult twins (560 pairs) completed the survey, making it one of the largest datasets containing incentivised preference measures of twins. As the survey was conducted during the COVID-19 pandemic, we also collected information on experiences related to the pandemic, along with a variety of questions on political attitudes and mental wellbeing. We hope that ATEPS can make a valuable contribution to social science and genetics research.

**JEL Classification:** D90, D91, I10, Y90

**Keywords:** economic preferences, twins, twin study

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## Introduction

Economists have long sought to understand the nature and malleability of people's economic preferences. Since preferences underly important life choices, a deeper understanding of them may shed light on the pathways through which advantage and disadvantage transmit. With this motivation in mind, ATEPS was conceived to better understand how people's economic preferences are formed by the influence of genetics, family and environment.

For more than a decade, twins research has been making important contributions to our understanding of economic preferences and related behavioral tendencies such as risk aversion (Cesarini et al. 2009; Zhong et al. 2009; Le et al, 2010; Simonson & Sela; 2011; Beauchamp et al. 2017; Harden et al. 2017; Nicolau & Shane 2019), impatience (Anokhin et al. 2011; Hubler 2018), ambiguity aversion (Cesarini et al. 2012), trust (Casarini et al. 2008; Hiraishi et al. 2008; Sturges et al. 2010; Van Lange et al. 2014; Wootton et al. 2016; Reimann et al. 2017) and overconfidence (Cesarini et al. 2009). However, only a few of these studies have elicited behaviors using monetarily incentivized decision tasks, which are conceptually superior to hypothetical or attitudinal measures. Moreover, rarely have multiple preference and behavioral measures been elicited within the same sample, allowing their inter-correlations to be explored and controlled for. ATEPS contains incentivized measures of numerous behavioral traits for a large sample of Australian adult twins.

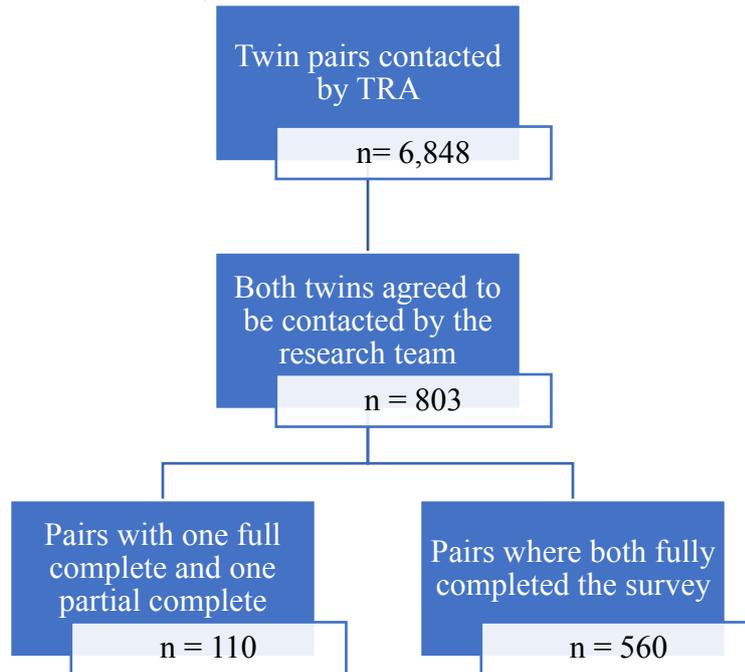
The timing of this survey also coincided with the COVID-19 pandemic. Beyond the direct health impacts, public health restrictions have changed the structure of work and social connection in Australia. These changes may have had a profound impact on individuals' economic preferences and ATEPS presents a unique opportunity to examine this impact using within-twin pair variation.

## Sample

Our sample was collected in collaboration with Twins Research Australia (TRA), which maintains the largest twin registry in Australia. TRA recruited twins from their registry by approaching them initially through email, and then progressing to SMS or targeted phone calls. The recruitment sample was drawn from active members of the registry aged 18-65 years at the time of recruitment. Twin pairs with both twins who opted in were then sent an individualized link to an online survey (administered using Qualtrics) by the research team. The survey was first emailed to participants on 8 September 2020 and then progressively sent to additional participants until 25 February 2021. The survey was closed on 1 March 2021. Our protocols and procedures were approved by the University of Technology Sydney Human Research Ethics Committee (application numbers ETH19-4381 and ETH20-5410) and by TRA.

Figure 1 details how the sample filtered down from TRA's recruitment pool to our final sample. TRA recruited from a pool of 6,848 twin pairs. Of these, 803 pairs agreed to be sent the survey. 1,447 individuals started the survey with 1,249 fully completing it. After limiting the sample to fully completing pairs, we have 560 pairs.

**Figure 1: Recruitment hierarchy**



Note: One triplet group was contacted, and two siblings fully completed the survey (not included in figures in the third row).

A significant feature of ATEPS is its relatively large sample size. To obtain this sample, TRA recruited for 25 weeks, with an initial pilot batch used to test for any process issues. The sign-up rate from email and SMS invitations to this pilot group was lower than expected. Based on related studies, we determined that 450 twin pairs would constitute a viable sample. To ensure at least this benchmark, we added a prize draw for participants and TRA engaged in limited recruitment via phone calls targeted at twin pairs where one had already signed up. There were two rounds of phone calls – one in December and one in January. These calls prioritized dizygotic twins, who are underrepresented in TRA’s registry.

The research team contacted participants by email shortly after they opted into the study. Follow-up emails were then sent to those who had not yet completed the survey typically 10 days after the initial email. At most, twin pairs received two further follow-ups before the survey was closed. We also engaged in limited SMS and phone call reminders targeted at half pair completes in December and in February. Participants were not required to complete the survey in one sitting, and if they exited the survey they could restart where they left off later.

There are 401 monozygotic pairs and 159 dizygotic pairs in the pair-completes sample. In total 82.9% of the sample are female. Because it was difficult to reach our recruitment benchmark with only same-sex pairs, we included mix-sex dizygotic twins, although the majority (73.6%) are same-sex.

**Table 1: Sample Characteristics**

Characteristic	Monozygotic twins	Dizygotic twins
Number of pairs	401	159
<i>Male-male</i>	57	18
<i>Female-female</i>	334	99
<i>Male-female</i>	-	42
Mean age	44.0	46.3
Married	51.0%	50.3%
University educated	58.9%	59.8%
Employed	85.9%	83.7%

Note: Zygosity status was determined by self-report if one twin indicated having been genetically tested, and if twins reported different blood types they were classified as dizygotic. For all other twins we used responses to the peas-in-a-pod questionnaire.

### The Survey

A copy of the complete survey is available in the Supplementary Material, along with a detailed codebook describing the variables available. Table 2 summarises the main features of the survey, which we expand on below.

**Table 2: Survey Modules**

Module	Survey questions
Zygosity	Peas-in-the-pod; blood type; known status
Risk	Investment task (Gneezy & Potters 1997); Lottery choice task (Eckel & Grossman 2002); Multiple price list (MPL) task (Holt & Laury 2002)
Time	MPL task; certainty equivalent (Benhabib et al, 2010)
Ambiguity	MPL task
Trust	Trust game (Berg et al. 1995)
(Over)confidence	Matrix puzzle task; Investment task
Stated preferences	Risk, patience, trust (Falk et al. 2016)
Default bias	Superannuation plan
Status quo	Switching – superannuation, private health insurance, electricity
Demographics	Sex; Australia born; State; city/country; marital status; children (plus ages); education; employment; retirement; household income; self-assessed health; disability
Mental health	Loneliness (3-items); depression and anxiety (PHQ-4)
Politics	Party affiliation; conservatism; view towards politicians
Covid-19	Exposure; risk perceptions; worry

### Zygosity

Zygosity status was determined by self-report if one twin indicated having been genetically tested. If twins reported different blood types they were classified as dizygotic. For all other twins we used responses to the peas-in-a-pod questionnaire, which has been shown to predict zygosity with more than 90% accuracy (Ooki et al. 1990). Of the 518 same-sex twin pairs who fully completed the survey, the zygosity status of 184 (35%) is determined by self-reported genetic test results, 25 pairs (4.8%) are classified as dizygotic due to different blood type and the remainder are classified using the peas-in-a-

pod questionnaire. We also included TRA's recorded zygosity status at the time of recruitment for each pair, along with how that status was determined.

### Economic preferences

Participants' risk, time, ambiguity preferences and trust were revealed using experimental choice tasks. A unique feature of ATEPS is that participants' preferences were elicited multiple times with different tasks, which can help researchers deal with measurement error (Gillen et al. 2019).

#### *Risk preferences*

Risk preferences refer to a person's proclivity towards risky options. Typically, economic experiments measure this through an individual's choice between lotteries with higher and lower variance. For example, an individual is more risk taking if they would prefer a lottery over a sure payment. We used three distinct choice tasks.

In the first task, based on Gneezy & Potters (1997), participants were told that they were given a sum of money and able to invest it in a risky project. For each question, we varied both the probability that the project would be successful and the return from a successful investment. Participants were asked what amount they would choose to invest.

In the second task, based on Eckel & Grossman (2002), participants were asked to choose between six lotteries, which each had a 50% chance of yielding a low or high payoff. More risk seeking individuals would pick the lottery with the greater difference in payoffs.

In the third task, based on Gillen et al (2019)'s adaptation of Holt & Laury (2002), participants were told that there was a box with a certain proportion of red and black balls. Participants first chose red or black as their winning colour. They then had to choose across a multiple price list (MPL) between a sure payment or receiving payment only if a ball drawn from the box matched the colour they chose (50% chance).

#### *Ambiguity aversion*

Ambiguity aversion refers to the tendency for people to prefer known risks over unknown risks (Ellsberg, 1961). This is typically studied using incentivised lottery choice tasks where the probabilities of outcomes are left ambiguous. A measure of a person's ambiguity aversion is given by the degree to which a person makes choices that are more risk averse in the ambiguous choice task, relative to the same task with known probabilities. To elicit ambiguity aversion, participants completed a task identical to the third task measuring risk preferences except that they were not told the proportion of red and black balls in the box.

#### *Time preferences*

Time preferences refer to the weight assigned by a person to future consumption relative to current consumption. People who are less patient tend to discount the future more heavily.

Our first task used a series MPLs where participants were asked to choose between a payment sooner or a higher payment later. We varied the amounts and delay between the sooner and later payment, and for each MPL we had a 'now' versus 'future' and 'now + X weeks' versus 'future + X weeks' condition, which can reveal present or future biased behaviour.

We also included a certainty equivalent task where participants could nominate an amount that would make them indifferent between that amount today and \$X at a future date. To incentivize the choice, we followed Benhabib et al. (2010) by incorporating a Becker-Debreu-Marshack (Becker et al. 1964) mechanism to determine the actual amount received.

### *Trust*

We measured willingness to trust others using a trust game (Berg et al. 1995). This game involved a sender deciding how much money to send to a receiver. The money sent to a receiver is increased by a factor of three and the receiver can then choose how much to send back. A sender is more trusting if they send a greater amount; a receiver is more trustworthy if they return a larger share.

### *Stated preferences*

The survey also elicited stated preferences. Using a scale from 0 to 10, participants were asked to rate their perception of their risk preferences, time preferences and their willingness to trust others following Falk et al. (2016).

## Behavioural biases

Another aim of the study is to decompose the variation in participants' propensity to be affected by behavioural biases. Specifically, we obtained measures of default bias, status quo bias and overconfidence.

### *Default bias*

Default bias refers to the tendency to prefer the default option over its alternatives. We measured default bias by asking participants about their default behaviour in the superannuation market (compulsory retirement savings). As studies have shown, the failure to switch away from default funds and investment strategies can greatly reduce income during retirement (Productivity Commission 2018). We asked participants whether they are enrolled in their default superannuation fund and whether they make voluntary contributions.

### *Status quo bias*

Status quo bias refers to the tendency to prefer that the current state of affairs remains the same. We measured status quo bias by asking participants how frequently they compare their existing policy to other policies in electricity and private health insurance markets.

### *Overconfidence*

We adopted an approach similar to Cheung & Johnstone (2017) to measure overconfidence by repeating our first risk preference task but with the outcome tied to whether the person scored in the top 50% of participants in a cognitive ability challenge. We would expect that people who are more confident will be less likely to reduce the amount invested compared to the original task.

For the cognitive challenge, participants were incentivised with payment to solve ten puzzles chosen from the matrix reasoning item bank (MaRs-IB) (Chierchia et al. 2019). These tasks are similar to Raven's Matrices. We chose 10 tasks such that the expected average score (based on the original study) was six correct. Although the MaRs-IB is a validated measure of non-verbal reasoning, it has not been validated specifically using the 10 sub-items we selected, so scores on the puzzle task should be used as a measure of cognition with caution.

As a more conventional measure of overconfidence, participants were also asked how many of the puzzles they believed they answered correctly and what they perceived their rank to be.

### Demographics, wellbeing and COVID-19

The survey included several demographics questions, such as relationship status, household composition, education, finances and employment. Some questions were targeted specifically towards understanding the impact of the COVID-19 pandemic on economic preferences. For example, participants were asked whether they had experienced any change in their employment due to COVID-19 restrictions and whether they had been tested for COVID-19. Because of the highly politicized nature of the government response to the pandemic, and the possible influence of political preferences on economic preferences, we included questions on voting attitudes, attitudes towards politicians (Pop-Eleches & Pop-Eleches, 2012) and a conservatism scale (Everett et al. 2013).

The survey also included a loneliness instrument and a measure of anxiety and depressive symptoms. The loneliness instrument was a three-item questionnaire adapted from Hughes et al (2004). Anxiety and depressive symptomology were elicited using the PHQ-4 (see Kroenke 2009 for a validation study).

### Payment

At the end of the survey, a random number generator picked one of the decision tasks and we played it out for real. It was made clear to participants in the Information Statement and survey instructions that they would only be paid based on their responses once both members of the twin pair had completed the survey. Participants also had to explicitly confirm their understanding of this payment condition by selecting ‘Yes’ prior to answering the substantive questions in the survey. They were informed that they would need to provide valid bank details, and that payments would be processed within 10 days of both twins completing the survey. A small number of participants completed the survey but did not provide valid bank details (usually because of security concerns). These participants are included in the sample but can be filtered out if desired.

We calibrated payments so that participants would receive approximately \$16 AUD on average, relative to an expected engagement time of 45-60 minutes (the actual average payment was \$15).

### **Conclusion**

ATEPS is an important new resource for social science researchers interested in genetics. Pending TRA approval, ATEPS can also be linked to other existing TRA surveys, expanding its value further. ATEPS is freely available to use for non-commercial research purposes by people affiliated with a valid research institution. Eventually, a de-identified version of the survey will be uploaded to a public data repository. In the meantime, please contact us directly if you would like to access the data.

### **Acknowledgements**

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### Conflict of interest

None.

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## **Supplementary Material**

# **Codebook for the Australian Twins Economic Preferences Survey**

Last edited: 17 August 2021

To report any issues with the codebook or dataset, or for any other enquiries related to the study, please contact Nathan Kettlewell at [Nathan.Kettlewell@uts.edu.au](mailto:Nathan.Kettlewell@uts.edu.au).

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<b>Variable name</b>	<b>Definition</b>
<b>Survey data</b>	
StartDate	Date participant first clicked on the survey
EndDate	Date participant submitted the survey
Progress	Percent of the survey completed or last accessed
Durationinseconds	Time between first clicked on survey and submitted
RecordedDate	Date survey recorded (either date of submission or date of survey closure)
ExternalReference	Individual project ID (needed to link with other Twins Research Australia datasets)
UserLanguage	User Language
browser	Browser Meta Info – Browser
operating_system	Browser Meta Info – Operating System
screen_res	Browser Meta Info – Resolution
join_date	Date participant signed up for the survey
res_date	Date participant submitted the survey
<b>Twin information</b>	
twin_years	For how many years (including your childhood) have you lived with your twin?
DNA_test_had	Have you ever had a DNA test?
DNA_test_result	What was the result of the DNA test? Fraternal/Identical/Unsure
DZ	= 1 if dizygotic twins according to ATEPS (see <b>Note A</b> )
MZ	= 1 if monozygotic twins according to ATEPS (see <b>Note A</b> )
complete_pair	= 1 if both twins completed the survey
person_id	identifies the participant
twin_id	identifies which twin pair the participant belonged to
first_res	= 1 if the twin was the first in pair to complete the survey
payment_note	A variable for flagging people who did not comply with the payment procedure (e.g. by providing fake bank details). = 1 if the participant provided correct payment bank details (includes participants whose details may have been incorrect but they didn't earn a payment, unless details were obviously fake) = 2 if the participant provided fake payment details and declined the payment upon contact from the research team = 3 if the participant provided fake payment details and refused to provide correct details upon contact from the research team = 4 if the participant provided fake payment details and was not responsive to contact attempts by the research team = 5 if participant provided incorrect but not obviously fake payment details (e.g. details with minor typo) but

	then declined payment upon contact from the research team
	= 6 if participant provided incorrect but not obviously fake payment details (e.g. details with minor typo) but was not responsive to contact attempts by the research team
peas_pod_q1	Were you and your twin “as alike as two peas in a pod”? = 1 if As alike as two peas in a pod = 2 if Quite different = 3 if Usual sibling similarity
peas_pod_q2	Were you and your twin mixed up as children? = 1 if Yes, very often = 2 if Now and then = 3 if Never
peas_pod_q3	By whom were you mixed up? (You can choose more than one) (see <b>Note A</b> ) Nobody/Others/Parents/Teachers
num_twins	How many twins in the family started the survey
both_twins	Both twins participated in the survey
p_in_pod_score	Individual score on peas-in-pod questionnaire
p_in_pod_score_tot	Combined average score in peas-in-pod questionnaire
blood_type	Participant’s blood type A+/A-/AB+/AB-/B+/B-/O+/O-/Unsure
tra_zygosity	Zygosity status according to Twins Research Australia (TRA) at the time of the survey
tra_zygosity_how	How TRA determined the participant’s zygosity status

***Demographics***

age	Age at last birthday
gender	Gender of participant
aus_born	= 1 if born in Australia
male	= 1 if male
state	State or Territory live in = 1 if overseas = 2 if ACT = 3 if NSW = 4 if NT = 5 if QLD = 6 if SA = 7 if TAS = 8 if VIC = 9 if WA
live_city	= 1 if currently live in a major city (Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra)

***Family structure***

marital_status	Current relationship status = 1 if de-facto = 2 if married = 3 if separated
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	= 4 if single = 5 if widowed
household_members	How many people live in your household?
enjoy_hh_mem	How much do you enjoy the company of the people you are living with, on a scale of 1 to 10
dep_children	Number of dependent children
age_dep1	Age of child 1
age_dep2	Age of child 2
age_dep3	Age of child 3
age_dep4	Age of child 4
age_dep5	Age of child 5
age_dep6	Age of child 6
age_dep7	Age of child 7
age_dep8	Age of child 8
age_dep9	Age of child 9
age_dep10	Age of child 10
age_dep11	Age of child 11
age_dep12	Age of child 12
age_dep13	Age of child 13
age_dep14	Age of child 14
age_dep15	Age of child 15
age_dep16	Age of child 16
age_dep17	Age of child 17
age_dep18	Age of child 18
age_dep19	Age of child 19
age_dep20	Age of child 20
lacked_companionship	How often did you feel you lacked companionship in the last week? = 1 if never = 2 if rarely = 3 if sometimes = 4 if often
left_out	How often did you feel left out last week? = 1 if never = 2 if rarely = 3 if sometimes = 4 if often
isolated	How often did you feel isolated from others in last week? = 1 if never = 2 if rarely = 3 if sometimes = 4 if often
<b><i>COVID-19 pandemic impacts</i></b>	
covid_prob	Probability participant believes they will get COVID-19 in the next 3 months
covid_worry	Worry or concern about contracting COVID-19 on a scale of 1 to 10
covid_mort_belief	If you do get COVID-19, what is the percent chance you will die from it?

covid_impact	Currently experiencing any of the following:
covid_job_loss	Job loss/Reduction in come/work from home/NA
covid_red_income	= 1 if experienced job loss due to COVID-19
covid_work_home	= 1 if experienced reduction in income due to COVID-19
covid_red_hours	= 1 if experienced working from home due to COVID-19
covid_tested	= 1 if experienced a reduction in working hours due to COVID-19
covid_positive	= 1 if ever been tested for COVID-19
covid_results	= 1 if ever tested positive for COVID-19
covid_pos_friends	What month did you receive COVID-19 test results? How many relatives or close friends have tested positive for COVID-19

### ***Education and employment***

education	Highest level of education achieved = 1 if Year 11 or below = 2 if Year 12 or equivalent = 3 if Certificate/Trade certificate = 4 if Diploma/Advanced diploma = 5 if Graduate degree/Postgraduate degree
worked	= 1 if worked any time in the last 7 days
on_leave	= 1 if had a job but did not work in the last 7 days due to holidays, sickness or any other reason (only asked if <i>worked</i> = 0)
employed	= 1 if <i>worked</i> = 1 or <i>on_leave</i> = 1
looking_work	= 1 if currently actively looking for work (only asked if <i>worked</i> = 0 and <i>on_leave</i> = 0)
retired	= 1 if currently retired from the workforce (only asked if <i>employed</i> = 0 and <i>looking_work</i> = 0)
own_income	Average usual weekly income in the last month of participant = 0 if Nil income = 1 if \$1-\$149 = 2 if \$150-\$299 = 3 if \$300-\$399 = 4 if \$400-\$499 = 5 if \$500-\$649 = 6 if \$650-\$799 = 7 if \$800-\$999 = 8 if \$1,000-\$1,249 = 9 if \$1,250-\$1,499 = 10 if \$1,500-\$1,749 = 11 if \$1,750-\$1,999 = 12 if \$2,000-\$2,999 = 13 if \$3,000 or more = 14 if Negative income = 15 if Unsure

partner_income	Average usual weekly income in the last month of participant's partner = 0 if Nil income = 1 if \$1-\$149 = 2 if \$150-\$299 = 3 if \$300-\$399 = 4 if \$400-\$499 = 5 if \$500-\$649 = 6 if \$650-\$799 = 7 if \$800-\$999 = 8 if \$1,000-\$1,249 = 9 if \$1,250-\$1,499 = 10 if \$1,500-\$1,749 = 11 if \$1,750-\$1,999 = 12 if \$2,000-\$2,999 = 13 if \$3,000 or more = 14 if Negative income = 15 if Unsure
rec_gov_payments_singles	= 1 if receiving any income from government benefits, pensions or allowances (only asked if single, separated or widowed)
rec_gov_payments_couples	= 1 if receiving any income from government benefits, pensions or allowances (only asked married or de-facto)
hours_worked	Hours per week worked in all jobs
hours_worked_home	Hours per week worked at home
fin_security	Given your current needs and financial responsibility, would you say that you and your family are: = 1 if Poor = 2 if Just getting along = 3 if Comfortable = 4 if Very comfortable = 5 if Prosperous

***Politics and social positions***

vote_party	Party voted for in federal election = 1 if Greens = 2 if Labor Party = 3 if Liberal Party = 4 if Other Party = 5 if Nationals
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*How do you feel about the following issues on a scale of 1 to 100 where 0 is very negative and 100 is very positive?*

con_scale_abortion	Abortion
con_scale_welfare	Welfare benefits
con_scale_govt	Limited government
con_scale_military	Military and national security
con_scale_religion	Religion
con_scale_guns	Gun ownership
con_scale_marriage	Traditional marriage

con_scale_values	Traditional values
con_scale_fiscal	Fiscal responsibility
con_scale_business	Business
con_scale_family	Family unit
con_scale_patriot	Patriotism

*How do you feel about the following statements?*

= 1 if False

= 2 if Somewhat true

= 3 if True

pol\_power

Politicians care more about staying in power than about the interests of the people

pol\_misuse

Most politicians make a lot of money by misusing public office

pol\_dont\_care

Most politicians do not care what happens to people like me

pol\_job\_well

Most politicians do their job well most of the time

*How worried are you about the below?*

= 1 if Not worried at all

= 2 if Not worried much

= 3 if Somewhat worried

= 4 if Quite worried

= 5 if Extremely worried

worry\_own\_health

Own health

worry\_become\_ill

Prospect of becoming ill in the near future

worry\_fam\_health

Immediate family's health

worry\_elderly\_rel

Elderly relatives' health

worry\_income

Losing source of income

worry\_home

Losing home

worry\_australia

Future of Australia

worry\_world

Future of the World

sa\_health

How would you rate your current health?

= 1 if Poor

= 2 if Fair

= 3 if Good

= 4 if Very good

= 5 if Excellent

*Over the last 2 weeks, how often have you been bothered by the following problems?*

= 1 if Not at all

= 2 if Several days

= 3 if More than half the days

= 4 if Nearly every day

phq4\_nervous

Felt nervous, anxious or on edge

phq4\_worry

Not being able to stop or control worrying

phq4\_depressed

Feeling down, depressed or hopeless

phq4\_interest

Little interest or pleasure in doing things

lt\_cond = 1 if has a long-term health condition, impairment or disability that has lasted more than 6 months (see **Note B**)

***Risk preferences***

risk\_inv1 Amount invested in task 1 (40% chance triple amount)  
risk\_inv2 Amount invested in task 2 (50% chance 2.5 times amount)

risk\_eg Option chosen in Eckel & Grossman task out of 6 options  
risk\_mpl1\_colour Ball colour chosen for the risk task 1  
= 1 if black  
= 2 if red

*Would you rather a sure sum of money or the box gamble?*

= 1 if box gamble

= 2 if sure thing

risk\_mpl1\_c1 \$2 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c2 \$4 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c3 \$6 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c4 \$8 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c5 \$10 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c6 \$12 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c7 \$14 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c8 \$16 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c9 \$18 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c10 \$20 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c11 \$22 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c12 \$24 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c13 \$26 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c14 \$28 for sure or \$30 if ball is correct colour  
risk\_mpl1\_c15 \$30 for sure or \$30 if ball is correct colour  
risk\_mpl1\_switch First switch from 'gamble' to 'safe' (choices 1 to 15)  
= 16 if no switch

risk\_mpl2\_colour Ball colour chosen for the risk task 2

= 1 if black

= 2 if red

risk\_mpl2\_c1 \$2.50 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c2 \$5 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c3 \$7.50 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c4 \$10 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c5 \$12.50 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c6 \$15 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c7 \$17.50 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c8 \$20 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c9 \$22.50 for sure or \$25 if ball is correct colour  
risk\_mpl2\_c10 \$25 for sure or \$25 if ball is correct colour  
risk\_mpl2\_switch First switch from 'gamble' to 'safe' (choices 1 to 15)  
= 16 if no switch

risk_mpl1_switchL	Last switch from 'gamble' to 'safe' in MPL risk task 1 (choices 1 to 15) = 16 if no switch
risk_mpl1_irrat	Participant switched multiple times in MPL risk task 1 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
risk_mpl2_switchL	Last switch from 'gamble' to 'safe' in MPL risk task 2 (choices 1 to 15) = 16 if no switch
risk_mpl2_irrat	Participant switched multiple times in MPL risk task 1 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
risk_mpl1_num	Number of 'safe' choices in MPL risk task 1 (out of 15)
risk_mpl2_num	Number of 'safe' choices in MPL risk task 2 (out of 10)

***Time preferences***

time_ce1	Amount paid today that makes participant indifferent to \$20 in 12 weeks
time_ce2	Amount paid today that makes participant indifferent to \$15 in 6 weeks

***Select your preferred payment***

= 1 if paid later  
= 2 if paid now

time_mpl1_c1	\$15 now or \$15.50 in 8 weeks
time_mpl1_c2	\$15 now or \$16.50 in 8 weeks
time_mpl1_c3	\$15 now or \$17.50 in 8 weeks
time_mpl1_c4	\$15 now or \$18.50 in 8 weeks
time_mpl1_c5	\$15 now or \$19.50 in 8 weeks
time_mpl1_c6	\$15 now or \$20.50 in 8 weeks
time_mpl1_c7	\$15 now or \$21.50 in 8 weeks
time_mpl1_c8	\$15 now or \$22.50 in 8 weeks
time_mpl1_c9	\$15 now or \$23.50 in 8 weeks
time_mpl1_c10	\$15 now or \$24.50 in 8 weeks
time_mpl2_c1	\$13 now or \$15 in 12 weeks
time_mpl2_c2	\$13 now or \$15 in 12 weeks
time_mpl2_c3	\$13 now or \$16.50 in 12 weeks
time_mpl2_c4	\$13 now or \$18 in 12 weeks
time_mpl2_c5	\$13 now or \$19.50 in 12 weeks
time_mpl2_c6	\$13 now or \$21 in 12 weeks
time_mpl2_c7	\$13 now or \$22.50 in 12 weeks
time_mpl2_c8	\$13 now or \$24 in 12 weeks
time_mpl2_c9	\$13 now or \$25.50 in 12 weeks
time_mpl2_c10	\$13 now or \$27 in 12 weeks
time_mpl3_c1	\$15 in 4 weeks or \$15.50 in 12 weeks
time_mpl3_c2	\$15 in 4 weeks or \$16.50 in 12 weeks

time_mpl3_c3	\$15 in 4 weeks or \$17.50 in 12 weeks
time_mpl3_c4	\$15 in 4 weeks or \$18.50 in 12 weeks
time_mpl3_c5	\$15 in 4 weeks or \$19.50 in 12 weeks
time_mpl3_c6	\$15 in 4 weeks or \$20.50 in 12 weeks
time_mpl3_c7	\$15 in 4 weeks or \$21.50 in 12 weeks
time_mpl3_c8	\$15 in 4 weeks or \$22.50 in 12 weeks
time_mpl3_c9	\$15 in 4 weeks or \$23.50 in 12 weeks
time_mpl3_c10	\$15 in 4 weeks or \$24.50 in 12 weeks
time_mpl4_c1	\$13 in 6 weeks or \$13.50 in 18 weeks
time_mpl4_c2	\$13 in 6 weeks or \$15 in 18 weeks
time_mpl4_c3	\$13 in 6 weeks or \$16.50 in 18 weeks
time_mpl4_c4	\$13 in 6 weeks or \$18 in 18 weeks
time_mpl4_c5	\$13 in 6 weeks or \$19.50 in 18 weeks
time_mpl4_c6	\$13 in 6 weeks or \$21 in 18 weeks
time_mpl4_c7	\$13 in 6 weeks or \$22.50 in 18 weeks
time_mpl4_c8	\$13 in 6 weeks or \$24 in 18 weeks
time_mpl4_c9	\$13 in 6 weeks or \$25.50 in 18 weeks
time_mpl4_c10	\$13 in 6 weeks or \$27 in 18 weeks
time_mpl1_switch	First switch from 'now' to 'later' in time MPL task 1
time_mpl2_switch	First switch from 'now' to 'later' in time MPL task 2
time_mpl3_switch	First switch from 'now' to 'later' in time MPL task 3
time_mpl4_switch	First switch from 'now' to 'later' in time MPL task 4
time_mpl1_switchL	Last switch from 'now' to 'later' in time MPL task 1
time_mpl2_switchL	Last switch from 'now' to 'later' in time MPL task 2
time_mpl3_switchL	Last switch from 'now' to 'later' in time MPL task 3
time_mpl4_switchL	Last switch from 'now' to 'later' in time MPL task 4
time_mpl1_irrat	Participant switched multiple times in MPL time task 1 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
time_mpl2_irrat	Participant switched multiple times in MPL time task 2 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
time_mpl3_irrat	Participant switched multiple times in MPL time task 3 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
time_mpl4_irrat	Participant switched multiple times in MPL time task 4 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
time_mpl1_num_sooner	Number of 'sooner' choices in MPL time task 1
time_mpl2_num_sooner	Number of 'sooner' choices in MPL time task 2
time_mpl3_num_sooner	Number of 'sooner' choices in MPL time task 3
time_mpl4_num_sooner	Number of 'sooner' choices in MPL time task 4

time_pb1	Time of first switch in MPL time task 1 minus time of first switch in MPL time task 3
time_pb2	Time of first switch in MPL time task 2 minus time of first switch in MPL time task 4
time_pb1_num	Number of 'sooner' choices in MPL time task 1 minus Number of 'sooner' choices in MPL time task 3
time_pb2_num	Number of 'sooner' choices in MPL time task 2 minus Number of 'sooner' choices in MPL time task 4

### ***Trust game***

trust_sent	Amount sent in trust game
trust_return1	Amount sent back in trust game if \$1 received
trust_return2	Amount sent back in trust game if \$2 received
trust_return3	Amount sent back in trust game if \$3 received
trust_return4	Amount sent back in trust game if \$4 received
trust_return5	Amount sent back in trust game if \$5 received
trust_return6	Amount sent back in trust game if \$6 received
trust_return7	Amount sent back in trust game if \$7 received
trust_return8	Amount sent back in trust game if \$8 received
trust_return9	Amount sent back in trust game if \$9 received
trust_return10	Amount sent back in trust game if \$10 received
trust_return11	Amount sent back in trust game if \$11 received
trust_avg_return	Average amount returned across trust receiver scenarios

### ***Overconfidence***

puzzle_practice_first_click	Timing of first click in overconfidence practice puzzle
puzzle_practice_last_click	Timing of last click in overconfidence practice puzzle
puzzle_practice_answer_time	Time taken to answer the practice puzzle
puzzle_practice_num_clicks	Number of clicks in the practice puzzle
puzzle_q1_first_click	Timing of first click in Q1
puzzle_q1_last_click	Timing of last click in Q1
puzzle_q1_answer_time	Time taken to answer Q1
puzzle_q1_num_clicks	Number of clicks in Q1
puzzle_q2_first_click	Timing of first click in Q2
puzzle_q2_last_click	Timing of last click in Q2
puzzle_q2_answer_time	Time taken to answer Q2
puzzle_q2_num_clicks	Number of clicks in Q2
puzzle_q3_first_click	Timing of first click in Q3
puzzle_q3_last_click	Timing of last click in Q3
puzzle_q3_answer_time	Time taken to answer Q3
puzzle_q3_num_clicks	Number of clicks in Q3
puzzle_q4_first_click	Timing of first click in Q4
puzzle_q4_last_click	Timing of last click in Q4
puzzle_q4_answer_time	Time taken to answer Q4
puzzle_q4_num_clicks	Number of clicks in Q4
puzzle_q5_first_click	Timing of first click in Q5
puzzle_q5_last_click	Timing of last click in Q5
puzzle_q5_answer_time	Time taken to answer Q5
puzzle_q5_num_clicks	Number of clicks in Q5
puzzle_q6_first_click	Timing of first click in Q6

puzzle_q6_last_click	Timing of last click in Q6
puzzle_q6_answer_time	Time taken to answer Q6
puzzle_q6_num_clicks	Number of clicks in Q6
puzzle_q7_first_click	Timing of first click in Q7
puzzle_q7_last_click	Timing of last click in Q7
puzzle_q7_answer_time	Time taken to answer Q7
puzzle_q7_num_clicks	Number of clicks in Q7
puzzle_q8_first_click	Timing of first click in Q8
puzzle_q8_last_click	Timing of last click in Q8
puzzle_q8_answer_time	Time taken to answer Q8
puzzle_q8_num_clicks	Number of clicks in Q8
puzzle_q9_first_click	Timing of first click in Q9
puzzle_q9_last_click	Timing of last click in Q9
puzzle_q9_answer_time	Time taken to answer Q9
puzzle_q9_num_clicks	Number of clicks in Q9
puzzle_q10_first_click	Timing of first click in Q10
puzzle_q10_last_click	Timing of last click in Q10
puzzle_q10_answer_time	Time taken to answer Q10
puzzle_q10_num_clicks	Number of clicks in Q10
puzzle_q11_first_click	Timing of first click in Q11
puzzle_q11_last_click	Timing of last click in Q11
puzzle_q11_answer_time	Time taken to answer Q11
puzzle_q11_num_clicks	Number of clicks in Q11
puzzle_avg_speed	Average seconds to answer each puzzle task
conf_risk_inv1	Amount invested in task 1 (50% chance of 2.5 times the amount if scored in the top 50% on the puzzle task)
conf_risk_inv2	Amount invested in task 2 (50% chance of 2.5 times the amount if scored in the top 50% on the puzzle task)
conf_risk_inv1_diff	Response in investment task 1 minus confidence investment task 1
conf_risk_inv2_diff	Response in investment task 2 minus confidence investment task 2
puzzle_pred_correct	How many of the ten puzzles do you think you got right?
puzzle_pred_rank	Where do you think you will rank in the puzzle tank compared to other twins in the study, out of 100
puzzle_ptile	Percentile rank in puzzle task among people completing the survey
puzzle_score	Score on the puzzle task out of 10
conf_predrank_actual_diff	Difference between predicted and actual rank in puzzle task
<b><i>Stated preferences</i></b>	
risk_stated	How willing/unwilling are you to take risks on a scale of 0 to 10?
time_stated	How willing are you to give up something that is beneficial today to benefit more in the future on a scale of 0 to 10?

trust\_stated “I assume that people have the best intentions”. How well does this statement describe you on a scale of 0 to 10?

***Ambiguity preferences***

ambiguity\_mpl1\_colour Ball colour chosen for ambiguity MPL task 1  
= 1 if black  
= 2 if red

*Would you rather a sure sum of money or the box gamble?*

= 1 if box gamble

= 2 if sure thing

ambiguity\_mpl1\_c1 \$2 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c2 \$4 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c3 \$6 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c4 \$8 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c5 \$10 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c6 \$12 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c7 \$14 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c8 \$16 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c9 \$18 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c10 \$20 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c11 \$22 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c12 \$24 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c13 \$26 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c14 \$28 for sure or \$30 if ball is correct colour  
ambiguity\_mpl1\_c15 \$30 for sure or \$30 if ball is correct colour

ambiguity\_mpl1\_switch First switch from ‘gamble’ to ‘safe’ in Ambiguity Task 1

= 16 if no switch

ambiguity\_mpl1\_switchL Last switch from ‘gamble’ to ‘safe’ in Ambiguity Task 1

= 16 if no switch

ambiguity\_mpl1\_irrat Participant switched multiple times in MPL ambiguity task 1 or in the wrong switch order

= 0 if no irrational switch

= 1 if irrational switch

ambiguity\_mpl2\_colour Ball colour chosen for ambiguity MPL task 2  
= 1 if black  
= 2 if red

ambiguity\_mpl2\_c1 \$2.50 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c2 \$5 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c3 \$7.50 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c4 \$10 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c5 \$12.50 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c6 \$15 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c7 \$17.50 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c8 \$20 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c9 \$22.50 for sure or \$25 if ball is correct colour  
ambiguity\_mpl2\_c10 \$25 for sure or \$25 if ball is correct colour

ambiguity_mpl2_switch	First switch from 'gamble' to 'safe' in Ambiguity Task 2 = 16 if no switch
ambiguity_mpl2_switchL	Last switch from 'gamble' to 'safe' in Ambiguity Task 2 = 16 if no switch
ambiguity_mpl2_irrat	Participant switched multiple times in MPL ambiguity task 2 or in the wrong switch order = 0 if no irrational switch = 1 if irrational switch
ambiguity_mpl1_num_safe	Number of 'safe' choices in MPL ambiguity task 1 (out of 15)
ambiguity_mpl2_num_safe	Number of 'safe' choices in MPL ambiguity task 2 (out of 10)
ambiguity_mpl1_diff	First switch in MPL Risk Task 1 minus first switch in MPL Ambiguity Task 1
ambiguity_mpl2_diff	First switch in MPL Risk Task 2 minus first switch in MPL Ambiguity Task 2
ambiguity_mpl1_diff_safe	Number of 'safe' choices in MPL risk task 1 minus Number of 'safe' choices in MPL ambiguity task 1
ambiguity_mpl2_diff_safe	Number of 'safe' choices in MPL risk task 2 minus Number of 'safe' choices in MPL ambiguity task 2

***Behavioural biases related questions***

has_super	= 1 if they have a superannuation account
super_default	= 1 if enrolled in default superannuation fund (including if required by contract)
super_no_choice	= 1 if enrolled in default superannuation fund but required to by employer
super_voluntary_cont	= 1 if makes voluntary superannuation payments
elec_responsible	Are you responsible for managing your electricity connection? = 1 if No, another person is responsible = 2 if Yes, jointly responsible = 3 if Yes, solely responsible
elec_freq_check_price	How often (in days) participant checks for better electricity prices (see <b>Note C</b> )
elec_time_unit	Time unit selected for frequency compare policies (see <b>Note C</b> )
elec_never_compare	= 1 if Never checks for better electricity prices
phi_status	Currently covered by private health insurance = 1 if No = 2 if Unsure = 3 if Yes
phi_never_compare	=1 if they never check for better private health insurance policies
phi_freq_check_price	How often (in days) a person checks for private health insurance price (see <b>Note C</b> )

phi_time_unit	Time unit selected for frequency compare policies (see <b>Note C</b> )
phi_5_years	Participant has been covered by private hospital insurance for at least five years = 1 if No = 2 if Unsure = 3 if Yes
phi_any	= 1 if participant is covered by private hospital and/or extras (general treatment) insurance
phi_extras_any	= 1 if participant is covered by private extras (general treatment) insurance
phi_hosp_any	= 1 if participant is covered by private hospital insurance
phi_type	Type of health insurance = 1 if combined hospital and extras = 2 if extras only = 3 if hospital only = 4 if unsure

**Note A:** Zygosity status was determined by self-report if at least one twin indicated having been genetically tested. If twins reported different blood types they were classified as dizygotic. For all other twins we used responses to the peas-in-a-pod questionnaire. Twins are coded as MZ if their average score is  $\leq 6.5$  (i.e. total score  $\leq 13$  if both twins in sample). The third question (where people could give multiple answers) was scored as follows, regardless of other choices: [1] if mixed up by parents; [2] if mixed up by teachers but not parents; [3] if mixed up by others but not parents or teacher; [4] if mixed up by nobody.

**Note B:** Participants were able to view the following list of examples. Examples of long-term health conditions, impairments and disabilities are:

- Sight problems not corrected by glasses or contact lenses
- Hearing problems
- Speech problems
- Blackouts, fits or loss of consciousness
- Difficulty learning or understanding things
- Limited use of arms or fingers
- Difficulty gripping things
- Limited use of feet or legs
- A nervous or emotional condition which requires treatment
- Any condition that restricts physical activity or physical work (e.g., back problems, migraines)
- Any disfigurement or deformity
- Any mental illness which requires help or supervision
- Shortness of breath or difficulty breathing
- Chronic or recurring pain
- Long-term effects as a result of a head injury, stroke or other brain damage
- A long-term condition or ailment which is still restrictive even though it is being treated or medication is being taken for it
- Any other long-term condition such as arthritis, asthma, heart disease, Alzheimer's disease, dementia etc.

**Note C:** Participants were able to answer using two dropdown lists. In the first (D1), they selected a number, and in the second they selected a frequency (days, weeks, months or years). Values for the variable are equal to D1 if the selected days,  $D1*7$  if they selected weeks,  $D1*30.416667$  if they selected months, and  $D1*365$  if they selected years.

## Introduction

Thank you for participating in our study on economic behaviour.

### *Your task*

Your tasks will involve making financial decisions. This is not a test and there are no right or wrong decisions as different people have different preferences. By completing these tasks, you may earn **real money**, which will be paid to you after both you and your twin have completed the survey. Payments will be processed within 10 days of this date. It is important that you pay attention to your decisions in the tasks and choose according to your own preferences, because the amount of money you earn will be determined by the choices that you make.

### *Your payment*

After you and your twin complete the survey, **one task will be selected at random and the decision that you made in this task will be paid out for real**. Depending on your answers and the task that is selected, you have the potential to earn **\$0-\$37.50**. Any earnings will be delivered to you by bank transfer. To enable this, you will need to provide your Australian bank details. We will not share your bank details, or use them for any other purpose, and will delete this information after we process your payment. Research records and bank account details will be stored on a secure server and only the principal researchers will have access to these records. You will be asked to provide your bank details at the end of this survey.

It is very important for us that you **do not discuss your decisions with your twin until you have both completed the survey**. Doing so will undermine the validity of this study. You are welcome to discuss your choices with your twin after you have both completed the survey.

To confirm your understanding, please select the appropriate responses below.

I may earn real money from my responses to this survey.

- Yes
- No

I can discuss the survey with my twin before we have both completed it.

- Yes
- No

Both me and my twin need to complete the survey before we are paid.

- Yes
- No

For the tasks involving money, one task will be selected at random and the decision that I make in this task will be paid out for real.

Yes

No

At the end of the survey I will need to provide bank account details to enable payment of any money I earn.

Yes

No

## Zygoty

To begin, we will ask some questions to understand how similar you and your twin are.

For how many years (including your childhood) have you lived with your twin?

Have you ever had a DNA test to determine whether you and your twin are identical, or fraternal?

Yes

No

What was the result of the DNA test?

Identical

Fraternal

Unsure

What is your blood type? If you don't know, just select 'unsure'.

The following questions ask how alike you and your twin were in your childhood. Please choose the most fitting answer for each question.

Were you and your twin "as alike as two peas in a pod"?

As alike as two peas in a pod

Usual sibling similarity

Quite different

Were you and your twin mixed up as children?

- Yes, very often
- Now and then
- Never

By whom were you mixed up? (You can choose more than one)

- Parents
- Teachers
- Others
- Nobody

## Risk preferences

*Please choose truthfully because this task may be the one selected for payment*

You received \$15 from the researchers running the study. You can choose to keep it or invest all or some of it in a risky project. The risky project has a 40% chance of success.

The part of money not invested in the risky project is yours to keep.

The part of money invested in the risky project brings different returns depending on whether the project is successful or not.

If the project is successful (40% chance), you will receive 3 times the amount you chose to invest. If the project is unsuccessful (60% chance), you will lose the amount invested.

Please choose how much money you want to invest in the risky project. Note that you can pick any amount between \$0 and \$7.50, including \$0 or \$7.50:

0

7.5

Amount invested (\$)

*Please choose truthfully because this task may be the one selected for payment*

You can invest in another risky project if you would like. You can invest up to \$15, or you can choose to keep this money. The risky project has a 50% chance of success.

The part of money not invested in the risky project is yours to keep.

The part of money invested in the risky project brings different returns depending on whether the project is successful or not.

If the project is successful (50% chance), you will receive 2.5 times the amount you chose to invest. If the project is unsuccessful (50% chance), you will lose the amount invested.

Please choose how much money you want to invest in the risky project. Note that you can pick any amount between \$0 and \$15, including \$0 or \$15:

Amount invested (\$)  15

*Please choose truthfully because this task may be the one selected for payment*

Which of the following options would you prefer?

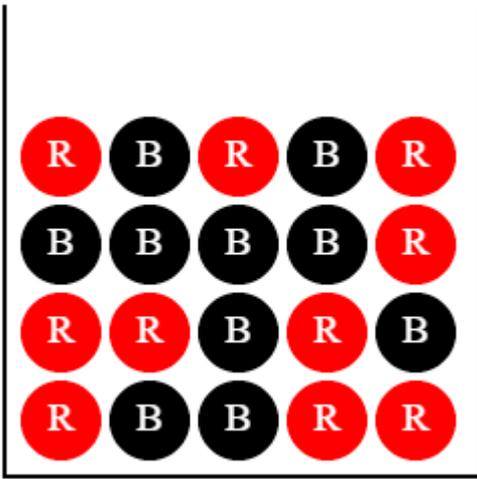
Each of the options will give you a 50% chance of the Low Payoff, and a 50% chance of the High Payoff.

Option	Low payoff (\$)	High payoff (\$)
1	1	35
2	6	30
3	8	26
4	10	22
5	12	18
6	14	14

Option 1     Option 2     Option 3     Option 4     Option 5     Option 6

*Please choose truthfully because this task may be the one selected for payment*

There is a box with 20 balls in it, like the one below.



Half of the balls in the box are **red** and the other half are **black**. In other words, there is an equal chance that a ball randomly drawn from the box by the computer will be either **red** or **black**.

Your task is to choose whether you would prefer a fixed amount of money for sure “the sure thing”, or whether you’d prefer for the computer to draw one of the balls from the box at random. If this ball is of the winning colour, you will receive \$30. If it is not of the winning colour, you receive nothing.

There are 15 questions for you to work through on the next page.

If this task is chosen for payment, the computer will randomly select one of the 15 questions.

Before you make your choices, please select whether you would like the winning colour to be black or red.

As my winning colour, I select:

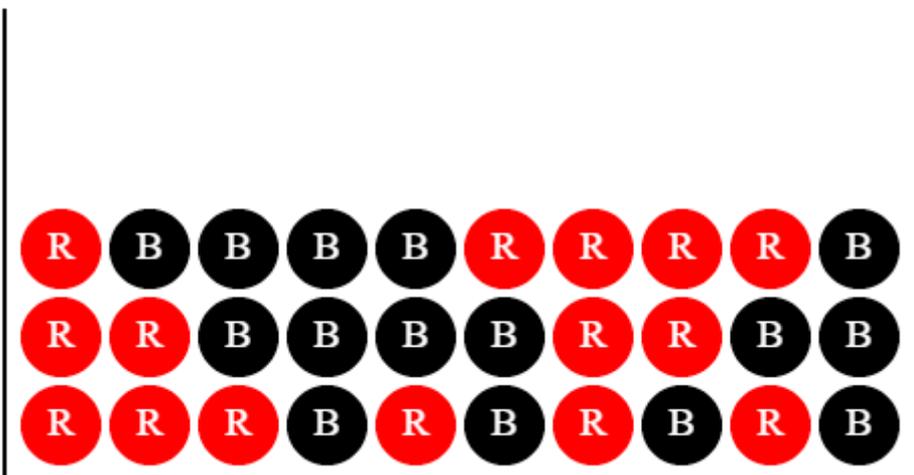
Select your preferred choice for each row below.

	Sure thing	Box gamble
\$2 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$4 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$6 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$8 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$10 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

	Sure thing	Box gamble
\$12 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$14 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$16 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$18 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$20 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$22 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$24 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$26 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$28 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$30 for sure (sure thing) or \$30 if $\{q://QID18/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

*Please choose truthfully because this task may be the one selected for payment*

There is a box with 30 balls in it, like the one below.



Half of the balls in the box are **red** and the other half are **black**. In other words, there is an equal chance that a ball randomly drawn from the box by the computer will be either **red** or **black**.

Your task is to choose whether you would prefer a fixed amount of money for sure “the sure thing”, or whether you’d prefer for the computer to draw one of the balls from the box at random. If this ball is of the winning colour, you will receive \$25. If it is not of the winning colour, you receive nothing.

There are 10 questions for you to work through on the next page.

If this task is chosen for payment, the computer will randomly select one of the 10 questions.

Before you make your choices, please select whether you would like the winning colour to be black or red.

As my winning colour, I select:

Select your preferred choice for each row below.

	Sure thing	Box gamble
\$2.50 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$5 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$7.50 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$10 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$12.50 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$15 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$17.50 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$20 for sure (sure thing) or \$25 if \$ {q://QID20/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>

	Sure thing	Box gamble
\$22.50 for sure (sure thing) or \$25 if $\{q://QID20/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$25 for sure (sure thing) or \$25 if $\{q://QID20/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

## Time preferences

*Please choose truthfully because this task may be the one selected for payment*

We want to know which payment option you prefer in each row of the four tables below. In each table the amount of money varies between dates, as well as the timing of when the payment will be made.

If this task is chosen for payment, we will randomly select one row from one of the tables and pay you according to which option you chose.

Be aware that for each row, the date of the payment will be X weeks after you and your twin complete the survey. For example, when we say the payment will be 'now', that means we will arrange the transfer as soon as you and your twin complete the survey (processed within 10 days). When we say 'in 8 weeks', that means 8 weeks after you and your twin complete the survey (and so on).

Please select your preferred payment in each row.

	Paid now	Paid in 8 weeks
\$15 now or \$15.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$16.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$17.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$18.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$19.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$20.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$21.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$22.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$23.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>
\$15 now or \$24.50 in 8 weeks	<input type="radio"/>	<input type="radio"/>

Pleased select your preferred payment in each row.

	Paid now	Paid in 12 weeks
\$13 now or \$13.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$15 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$16.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$18 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$19.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$21 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$22.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$24 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$25.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$13 now or \$27 in 12 weeks	<input type="radio"/>	<input type="radio"/>

Pleased select your preferred payment in each row.

	Paid in 4 weeks	Paid in 12 weeks
\$15 in 4 weeks or \$15.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$16.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$17.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$18.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$19.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$20.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$21.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$22.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>
\$15 in 4 weeks or \$23.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>

	Paid in 4 weeks	Paid in 12 weeks
\$15 in 4 weeks or \$24.50 in 12 weeks	<input type="radio"/>	<input type="radio"/>

Please select your preferred payment in each row.

	Paid in 6 weeks	Paid in 18 weeks
\$13 in 6 weeks or \$13.50 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$15 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$16.50 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$18 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$19.50 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$21 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$22.50 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$24 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$25.50 in 18 weeks	<input type="radio"/>	<input type="radio"/>
\$13 in 6 weeks or \$27 in 18 weeks	<input type="radio"/>	<input type="radio"/>

*Please choose truthfully because this task may be the one selected for payment*

What amount of \$X paid to you today, would make you indifferent to \$20 in 12 weeks? By indifferent we mean that you do not care which of the alternatives you ultimately get. In other words, you need to pick \$X such that you would prefer any amount higher than \$X to \$20 in 12 weeks and you would prefer \$20 in 12 weeks to any amount lower than \$X.

If this task is chosen for payment, the amount you get will be decided as follows:

- The computer will randomly pick a number between \$0 and \$20 (in \$0.01 increments).
- If the number the computer selects is greater than the \$X you said makes you indifferent between \$X received today and \$20 in 12 weeks, then you get paid the amount the computer selected today. This is because we know, based on your choice, that you prefer any amount larger than \$X received today to receiving \$20 in 12 weeks.
- Otherwise, you get \$20 in 12 weeks. This is because we know, based on your choice, that you prefer to receive \$20 in 12 weeks to receiving any amount lower than \$X today.
- It can be demonstrated that given this payment design, it is in your best interest to report your indifference amount truthfully if you want the payoff that maximises your welfare. So it pays to report

your indifference amount truthfully!

What is your \$X? Your answer can be any amount up to \$20.

0

20

Amount \$X paid today

*Please choose truthfully because this task may be the one selected for payment*

What amount of \$X paid to you today, would make you indifferent to \$15 paid in 6 weeks?

If this question is chosen for payment, we will pay you in the way described in the previous question. This time, the computer will pick a prize between \$0 and \$15 at random.

What is your \$X? You can choose any amount up to \$15.

0

15

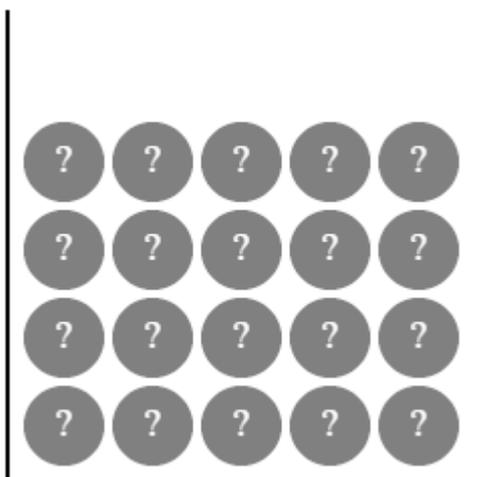
Amount \$X paid today

## Ambiguity preferences

*Please choose truthfully because this task may be the one selected for payment*

There is a box with 20 balls in it. Each of the balls in the box is either **red** or **black**.

This time, you do not know the ratio of red and black balls in the box. It has been decided by a random number generator. The balls could all be red, they could all be black, or there could be any combination of red and black balls.



Your task is to choose whether you would prefer a fixed amount of money for sure “the sure thing”, or whether you’d prefer for the computer to draw one of the balls from the box at random. If this ball is of the winning colour, you will receive \$30. If it is not of the winning colour, you receive nothing.

There are 15 questions for you to work through on the next page.

If this task is chosen for payment, the computer will randomly select one of the 15 questions.

Before you make your choices, please select whether you would like the winning colour to be black or red.

As my winning colour, I select:

Select your preferred choice for each row below.

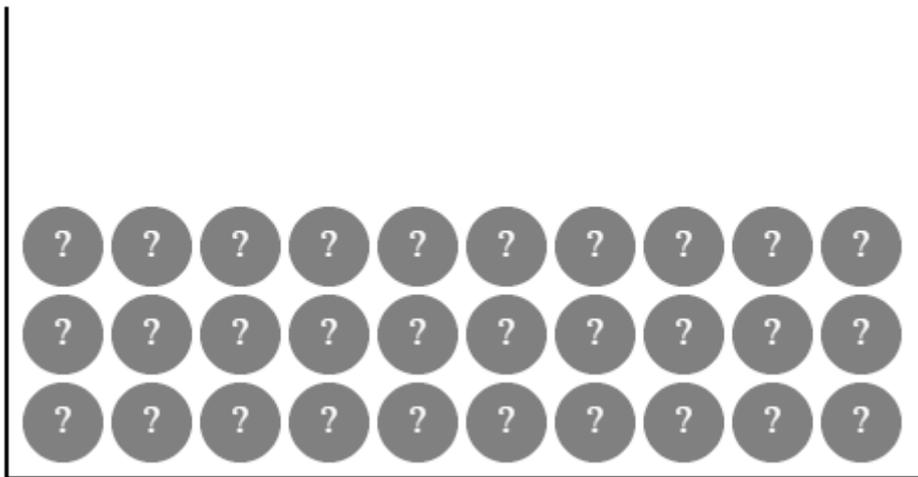
	Sure thing	Box gamble
\$2 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$4 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$6 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$8 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$10 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$12 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$14 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$16 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$18 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$20 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$22 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$24 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

	Sure thing	Box gamble
\$26 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$28 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>
\$30 for sure (sure thing) or \$30 if $\{q://QID29/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

*Please choose truthfully because this task may be the one selected for payment*

There is a box with 30 balls in it. Each of the balls in the box is either **red** or **black**.

Again, the ratio of red and black balls in the box has been decided by a random number generator. The balls could all be red, they could all be black, or there could be any combination of red and black balls.



Your task is to choose whether you would prefer a fixed amount of money for sure “the sure thing”, or whether you’d prefer for the computer to draw one of the balls from the box at random. If this ball is of the winning colour, you will receive \$25. If it is not of the winning colour, you receive nothing.

There are 10 questions for you to work through on the next page.

If this task is chosen for payment, the computer will randomly select one of the 10 questions.

Before you make your choices, please select whether you would like the winning colour to be black or red.

As my winning colour, I select:

Select your preferred choice for each row below.

	Sure thing	Box gamble
\$2.50 for sure (sure thing) or \$25 if $\{q://QID31/ChoiceGroup/SelectedChoices\}$ (box gamble)	<input type="radio"/>	<input type="radio"/>

	Sure thing	Box gamble
\$5 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$7.50 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$10 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$12.50 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$15 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$17.50 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$20 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$22.50 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>
\$25 for sure (sure thing) or \$25 if \$ {q://QID31/ChoiceGroup/SelectedChoices} (box gamble)	<input type="radio"/>	<input type="radio"/>

## Trust

*Please choose truthfully because this task may be the one selected for payment*

In this task you will be matched with another randomly selected participant in this study. The person you will be matched with will **not be your twin**.

You received \$11 from the researchers running the study. In this task, you are **the sender**. You have the option to send up to \$11 to your randomly selected matched participant (**the receiver**). Whatever money you send to the receiver will be tripled. If, for example, you decided to send \$5 to the receiver, the receiver will get \$15. The receiver then has the option to send back to you money from the amount that (s)he now owns.

The amount of money you don't send to the receiver and the amount of money you receive from the receiver, you get to keep. The receiver gets the amount of money that they received from you (= how much you sent times three) minus how much they decided to send back to you.

When deciding how much to send, both you and the receiver can choose any amount from \$0 up to the amount that you currently have (\$11).

This game could be chosen for your payment at the end, so be thoughtful about how you play!

Just to be sure you understand how this game works, please answer the following questions. You will need to get them all right to proceed.

I am the sender.

- True
- False

As the sender, I get to choose how much money I can send to the receiver.

- True
- False

Who is the receiver?

- The researchers involved in this study
- A randomly matched person who is also participating in this study (not my twin)

By how much will the money I send to the receiver be increased?

- Doubled
- Tripled
- Quadrupled

The receiver can send back to me any amount between \$0 to the amount (s)he received.

- True
- False

Now let's decide how much money to send to the receiver. You can choose any amount (in intervals of \$1) between 0 to \$11.

0    1    2    3    4    5    6    7    8    9    10    11

How much will you  
send?

*Please choose truthfully because this task may be the one selected for payment*

This task is the same game but now you play as **the receiver**.

You will again be randomly assigned to another participant in this survey (**the sender**) who is not your twin. Each question below shows different scenarios of how much the sender (who has received \$11 from the researchers) has sent to you. The difference between \$11 and the amount sent by the sender is how much

they kept for themselves.

For each of the scenarios you need to decide how much you want to send back to the sender. Whatever you don't send back, you get to keep. You can choose any amount (in intervals of \$1) between \$0 and the amount you have which is different in each scenario.

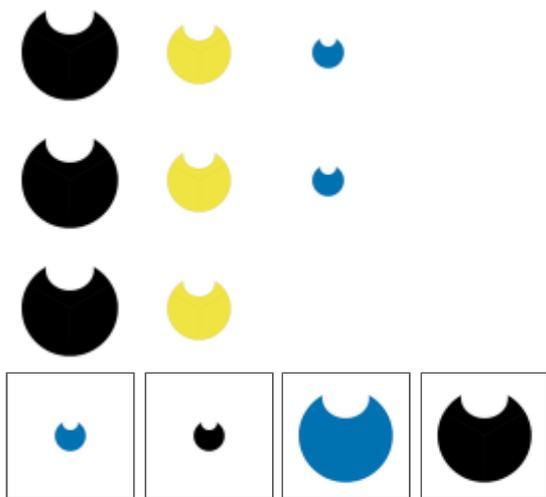
- The sender sends \$1, meaning you have \$3. How much do you send back?
- The sender sends \$2, meaning you have \$6. How much do you send back?
- The sender sends \$3, meaning you have \$9. How much do you send back?
- The sender sends \$4, meaning you have \$12. How much do you send back?
- The sender sends \$5, meaning you have \$15. How much do you send back?
- The sender sends \$6, meaning you have \$18. How much do you send back?
- The sender sends \$7, meaning you have \$21. How much do you send back?
- The sender sends \$8, meaning you have \$24. How much do you send back?
- The sender sends \$9, meaning you have \$27. How much do you send back?
- The sender sends \$10, meaning you have \$30. How much do you send back?
- The sender sends \$11, meaning you have \$33. How much do you send back?

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## Overconfidence

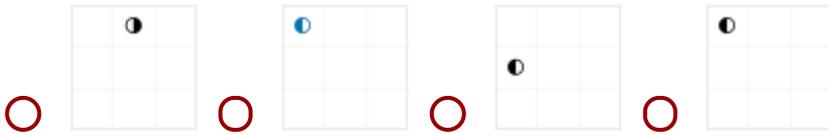
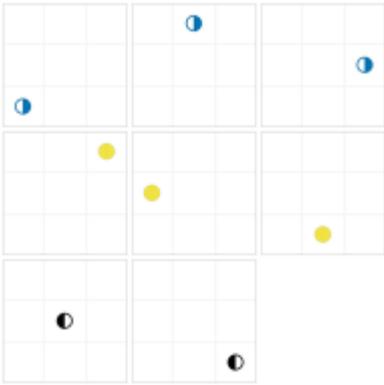
*Please choose truthfully because this task may be the one selected for payment*

In this section you will be asked to solve a series of ten puzzles. For each puzzle you will see an image with a piece missing. Your job is to select the missing piece from a set of different options. For example, for the image below you would need to select the most likely missing piece from the options 1-4.



You will have **30 seconds** to submit your answer for each puzzle and **will earn \$2 for every answer you get right**. A timer will tell you how long you have left to answer each puzzle. Some of the puzzles will be difficult to answer in 30 seconds.

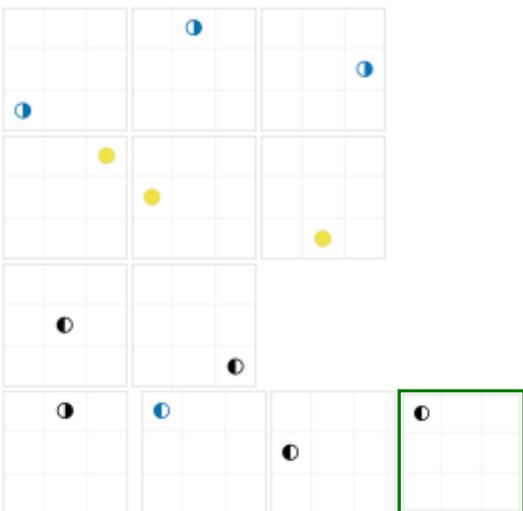
Before you do this task for real, let's do a practice question. Click next to move to the practice question when you're ready.



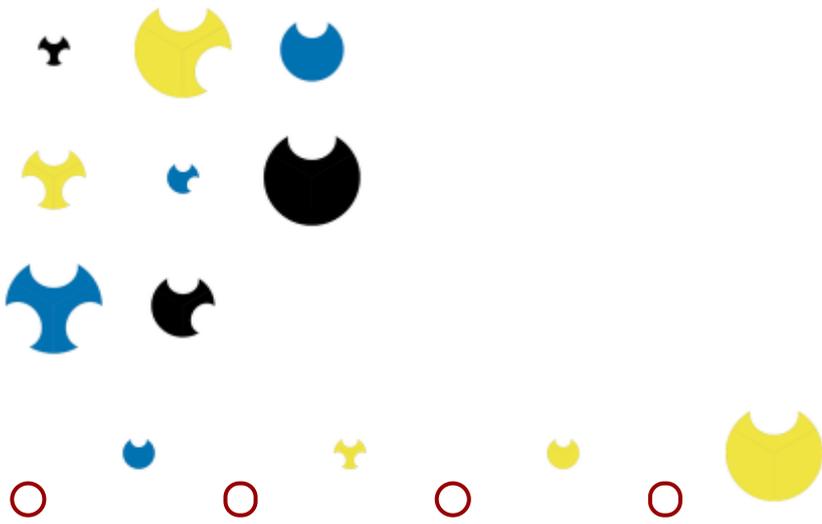
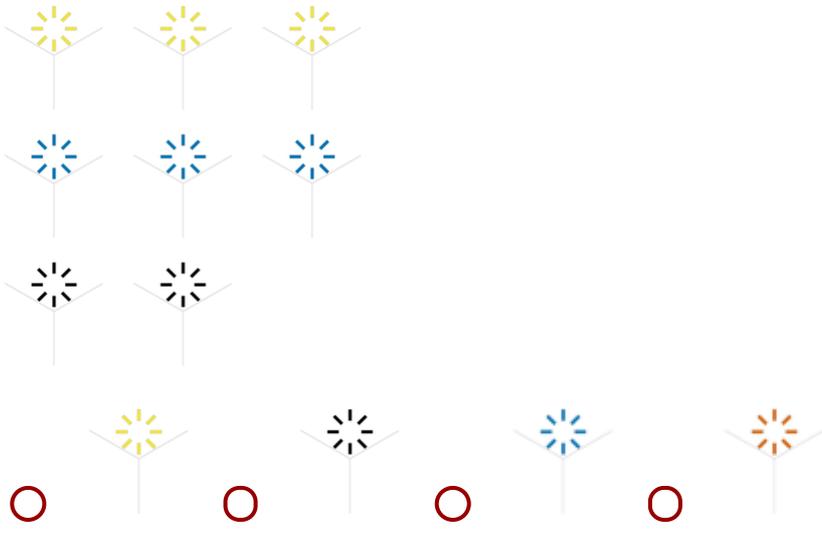
That answer was correct!

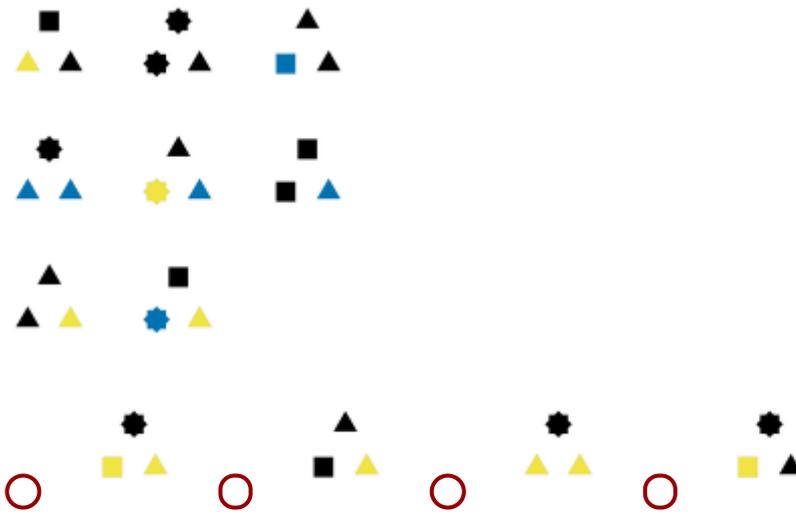
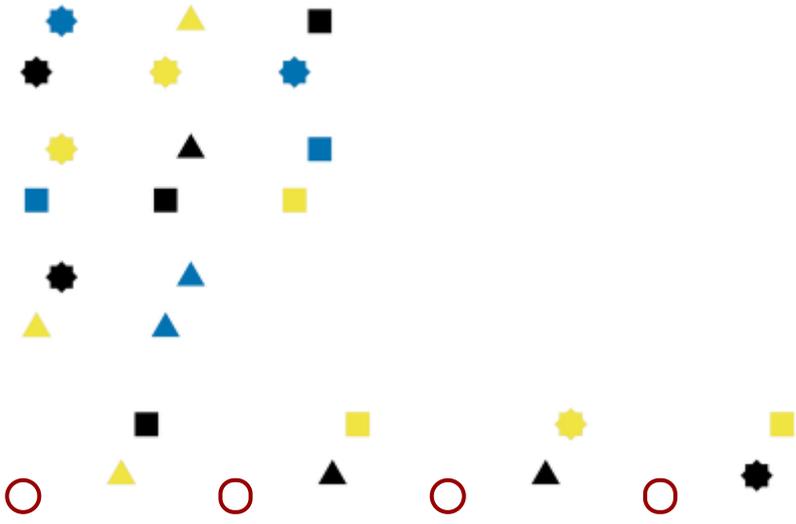
Please click next when you're ready to begin the real task. Please do your best. Remember, if this task is chosen for payment you will earn \$2 for every correct answer. Also, the better you do in this task, the more money you can make in the later tasks.

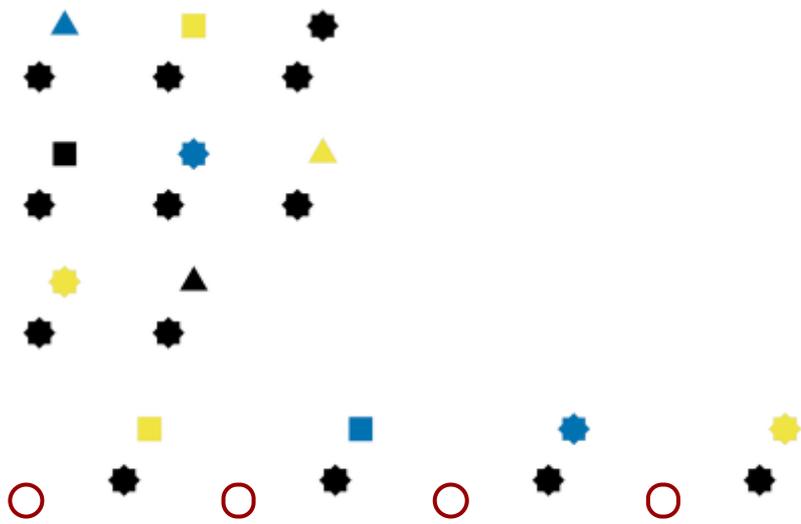
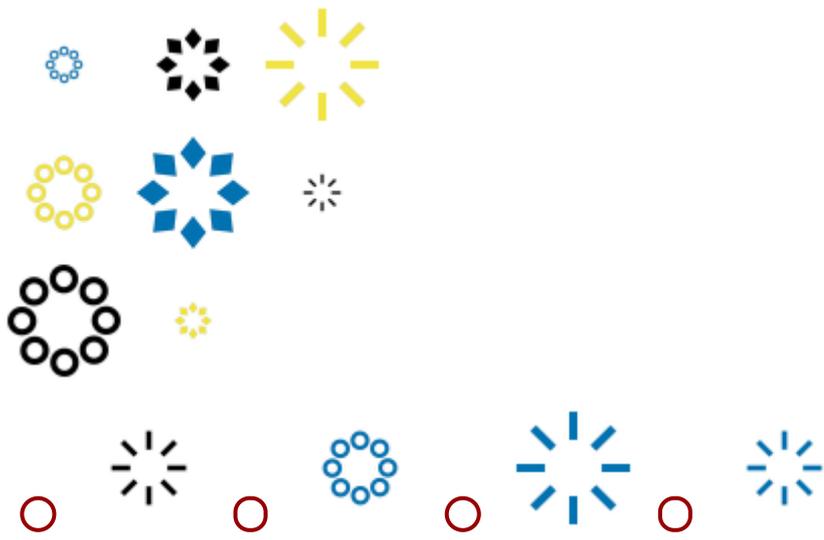
That answer was incorrect. The correct answer was option 4.

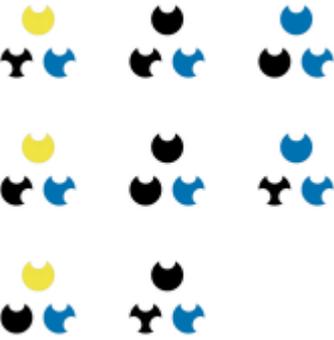
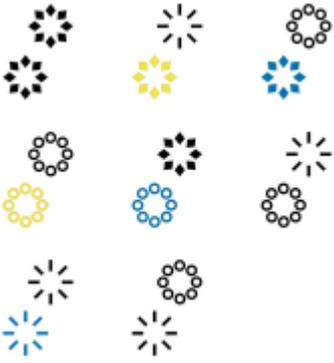


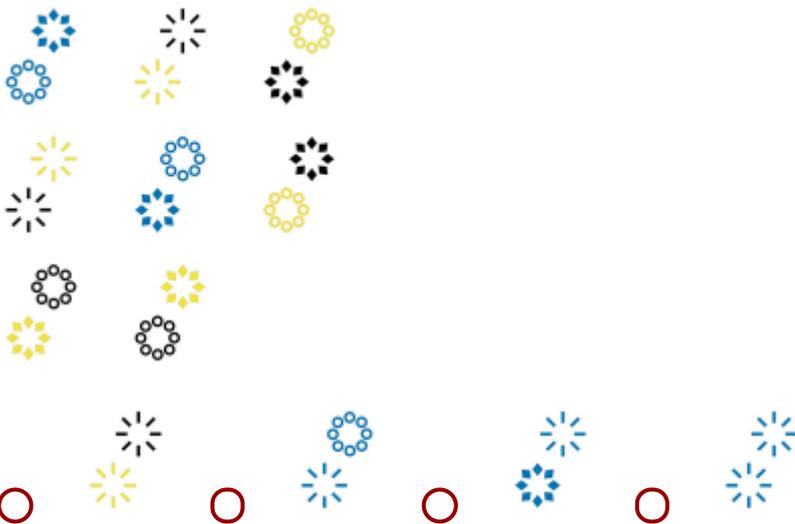
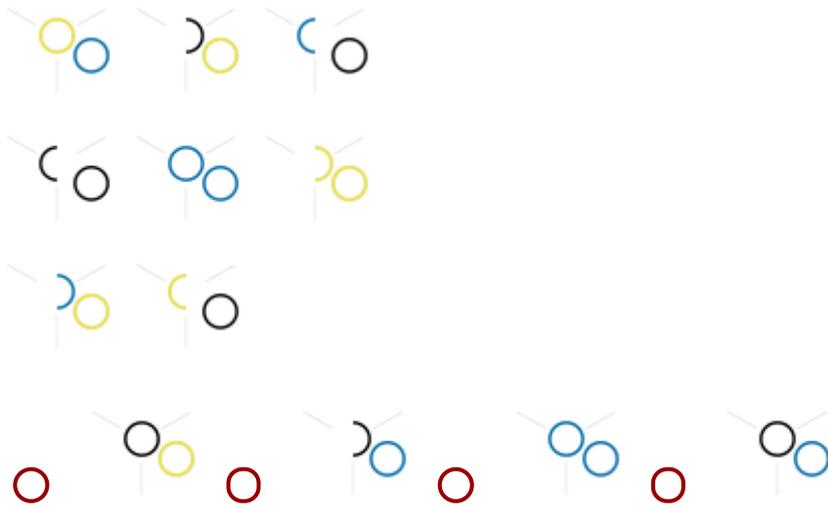
Please click next when you're ready to begin the real task. Please do your best. Remember, if this task is chosen for payment you will earn \$2 for every correct answer. Also, the better you do in this task, the more money you can make in the later tasks.











We will now ask you questions about investing in a risky project, which are similar to questions you saw earlier. However, this time the amount you receive if the project is successful will depend on where you rank (compared to other twins who have completed this survey) on the puzzle task you just completed.

***Please choose truthfully because this task may be the one selected for payment***

You received \$15 from the researchers running the study. You can choose to keep it or invest all or some of it in a risky project. The risky project has a 40% chance of success.

The part of money not invested in the risky project is yours to keep.

The part of money invested in the risky project brings different returns depending on whether the project is successful or not.

If the project is successful (40% chance) and you rank in the top 50% of participants in the puzzle task, you will receive 3 times the amount you chose to invest. If the project is successful but you rank in the bottom

50%, you will simply receive back the money you invested. If the project is unsuccessful (60% chance), you will lose the amount invested.

Please choose how much money you want to invest in the risky project. Note that you can pick any amount between \$0 and \$7.50, including \$0 or \$7.50:

0 7.5

Amount invested (\$)

*Please choose truthfully because this task may be the one selected for payment*

You received \$15 from the researchers running the study. You can choose to keep it or invest all or some of it in a risky project. The risky project has a 50% chance of success.

The part of money not invested in the risky project is yours to keep.

The part of money invested in the risky project brings different returns depending on whether the project is successful or not.

If the project is successful (50% chance) and you rank in the top 50% of participants in the puzzle task, you will receive 2.5 times the amount you chose to invest. If the project is successful but you rank in the bottom 50%, you will simply receive back the money you invested. If the project is unsuccessful (50% chance), you will lose the amount invested.

Please choose how much money you want to invest in the risky project. Note that you can pick any amount between \$0 and \$15, including \$0 or \$15:

0 15

Amount invested (\$)

How many of the ten puzzles do you think you got right?

Where do you think you will rank in the puzzle task compared to other twins in this study, out of 100? A person who thinks (s)he is the best, should select 1. A person who thinks (s)he is the worst, should select 100. A person who thinks (s)he is average, should pick 50, etc...

1    11    21    31    41    51    60    70    80    90    100

Answer

### Stated preferences

Please tell me, in general, how willing or unwilling you are to take risks? Use a scale from 0 to 10, where 0 means “completely unwilling to take risks” and a 10 means you are “very willing to take risks”.

0  1  2  3  4  5  6  7  8  9  10

How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future? Please again indicate your answer on a scale from 0 to 10, where 0 means you are “completely unwilling to do so” and a 10 means you are “very willing to do so”.

0  1  2  3  4  5  6  7  8  9  10

How well does the following statement describe you as a person? “I assume that people have only the best intentions.”

Please indicate your answer on a scale from 0 to 10, where 0 means “does not describe me at all” and 10 means “describes me perfectly”.

0  1  2  3  4  5  6  7  8  9  10

## Behavioural biases

In this section we will ask some questions about your real-life behaviour regarding certain financial choices.

Do you have a superannuation account?

- Yes
- No

For your main superannuation account, is the superannuation fund the default fund for your employer?

- Yes
- Yes - but my employment contract requires me to use this fund
- No
- Not applicable (e.g. self-managed fund)
- Unsure

Do you make any voluntary contributions to your superannuation account (including salary sacrifice)?

- Yes
- No
- Unsure

Are you responsible for managing your electricity connection, for example choosing provider and paying the bills? Select the most appropriate answer.

- No, another person in my household is responsible for this (e.g. my partner, parent)
- Yes, I am jointly responsible
- Yes, I am solely responsible

How often do you compare your electricity policy to other policies to see if you can get a better deal?

Every (choose a number)

Choose a unit of time (days, weeks, months, years)

Are you currently covered by private health insurance?

- Yes
- No
- Unsure

What type of private health insurance cover do you have?

- Combined hospital and extras
- Hospital only
- Extras only
- Unsure

Have you been covered by private hospital insurance for at least five years?

- Yes
- No
- Unsure

How often do you compare your private health insurance policy to other policies to see if you can get a better deal?

Every (choose a number)

Choose a unit of time (days, weeks, months, years)

## Demographics

Were you born in Australia?

- Yes
- No

What State or Territory do you currently live in?

Do you live in one of the following major cities: Sydney, Melbourne, Brisbane, Adelaide, Perth, Canberra?

- Yes
- No

Please indicate which of the following best describes your current relationship status?

- Single
- Married
- De-facto
- Widowed
- Separated

How many people reside in your household including you?

On a scale of 0 to 10 how much do you enjoy the company of people you are living with?

- 0  1  2  3  4  5  6  7  8  9  10

How many dependent children do you have? A dependent child is classified as a child who relies on you for financial maintenance. If you have children but do not support them financially, please select 0.

What is the age (in years) of your dependent child? If your child hasn't turned one yet, just write 0.

What are the ages (in years) of your  $\{q://QID85/ChoiceTextEntryValue\}$  dependent children? If your child hasn't turned one yet, just write 0.

Age of child 1

Age of child 2

Age of child 3

Age of child 4

Age of child 5

Age of child 6

Age of child 7

Age of child 8

Age of child 9

Age of child 10

Age of child 11

Age of child 12

Age of child 13

Age of child 14

Age of child 15

Age of child 16

Age of child 17

Age of child 18

Age of child 19

Age of child 20

Please note, this section is necessary to contextualise your responses. While we would appreciate if you could answer every question, note that questions marked with a \* can be skipped if you prefer not to answer them.

\*The next questions are about how you feel about different aspects of your life. For each one, tell us how often you felt that way in the last week.

	Never	Rarely	Sometimes	Often
First, how often did you feel that you lacked companionship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often did you feel left out?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often did you feel isolated from others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

From the options below, what is the highest level of education you have achieved?

- Year 11 or below
- Year 12 or equivalent
- Certificate/Trade certificate
- Diploma/Advanced diploma
- Graduate degree/Postgraduate degree

At any time at all during the last 7 days, did you do any work in a job, business or farm?

- Yes
- No

Did you have a job, business or farm, but did not work during the last 7 days because of holidays, sickness or any other reason (such as maternity leave or on workers compensation)?

- Yes

No

Are you currently actively looking for work?

Yes

No

Are you currently retired from the workforce?

Yes

No

Thinking about the last month, on average how much was your usual weekly income from all sources before tax and other deductions?

Are you currently receiving any income from government benefits, pensions, or allowances?

Yes

No

Thinking about the last month, on average how much was your and your partner's usual weekly income from all sources?

Your income

Your partner's income

Are you or your partner currently receiving any income from government benefits, pensions, or allowances?

Yes

No

Including any paid or unpaid overtime, approximately how many hours per week do you currently work in all your jobs?

Approximately how many hours each week do you currently work at home?

Given your current needs and financial responsibilities, would you say that you and your family are...

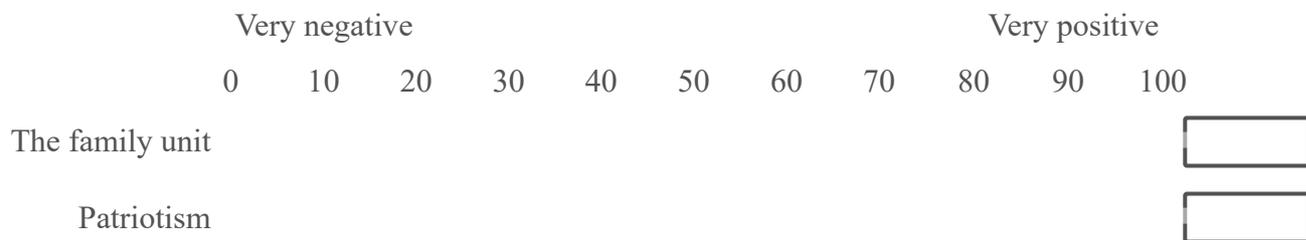
- Prosperous
- Very comfortable
- Comfortable
- Just getting along
- Poor
- Very poor

\*If Federal Government elections were held today, which party would you vote for?

- Greens
- Labor Party
- Liberal Party
- The Nationals
- Other party

\*How positive or negative do you feel about each issue on the scale of 0 to 100, where 0 represents very negative, and 100 represents very positive?

	Very negative		Very positive									
	0	10	20	30	40	50	60	70	80	90	100	
Abortion												
Welfare benefits												
Limited government												
Military and national security												
Religion												
Gun ownership												
Traditional marriage												
Traditional values												
Fiscal responsibility												
Business												



Rate the statements below on how true they are:

	True	Somewhat true	False
Most politicians care more about staying in power than about the interests of the people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most politicians make a lot of money by misusing public office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most politicians do not care what happens to people like me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most politicians do their job well most of the time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How worried are you about the below?

	Not worried at all	Not worried much	Somewhat worried	Quite worried	Extremely worried
Your own health	<input type="radio"/>				
The prospect of becoming ill in the near future	<input type="radio"/>				
Your immediate family's health	<input type="radio"/>				
Your elderly relatives' health	<input type="radio"/>				
Losing your source of income	<input type="radio"/>				
Losing your home	<input type="radio"/>				
The future of Australia	<input type="radio"/>				
The future of the World	<input type="radio"/>				

How would you rate your current health?

- Excellent
- Very good
- Good

- Fair
- Poor

\*Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious, or on edge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not being able to stop or control worrying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling down, depressed or hopeless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Little interest or pleasure in doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*Do you have any long-term health condition, impairment or disability (such as those listed [here](#)), that restricts you in your everyday activities, and has lasted or is likely to last for 6 months or more?

- Yes
- No

For the last part of this survey, we will ask you some questions about the COVID-19 epidemic.

\*Are you currently experiencing, or have you experienced, any of the following changes to your employment as a result of the COVID-19 restrictions?

- Job loss
- Reduction in working hours
- Reduction in income
- Working from home
- Not applicable

\*On a scale of 0 to 100 percent, what is the chance that you will get COVID-19 in the next three months? If you're not sure, please give your best guess.

0    10    20    30    40    50    60    70    80    90    100

Percent chance

\*On a scale of 0 to 10, how worried or concerned are you about contracting COVID-19/ coronavirus?

\*On a scale of 0 to 100 percent, if you do get COVID-19, what is the percent chance you will die from it? If you're not sure, please give your best guess.

0 10 20 30 40 50 60 70 80 90 100

Percent chance

\*Have you been tested for COVID-19 (regardless of the result)?

- Yes  
 No

\*Have you ever tested positive for COVID-19?

- Yes  
 No

\*Please tell us which month you received the results for the most recent time you were tested. If you're unsure, answer with your best guess.

\*How many of your close relatives and friends have tested positive for COVID-19? Write the number below (if none of your close relatives or friends have tested positive, write 0).

### Payment details and feedback

To make the payment we require your bank details. Please provide us with details of your Australian bank where you would like the money to be deposited. Unfortunately, we cannot handle international money transfers.

Account name

BSB

Account number

Thank you for completing our survey, we greatly appreciate your contribution to this research. If you would like to provide any feedback to the researchers, please do so in the text box below. **When you're done, click next to submit your responses.** You need to click next for the survey to register.

