

FOR ONLINE PUBLICATION

Appendix for

“Does Uncertainty Cause Inertia in Decision Making? An Experimental Study of the Role of Regret Aversion and Indecisiveness”

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A Other Theories that Predict a Switch

As I discuss in Section 2.1, SEU predicts that the DM will switch tickets provided that switching is rewarded with a bonus. In this appendix I show that several theories make the same prediction as SEU. These theories are Rank-Dependent Utility (Quiggin 1982), Maxmin Expected Utility (Gilboa and Schmeidler 1989), Smooth Ambiguity Preferences (Klibanoff, Marinacci, and Mukerji 2005, 2012), Variational Preferences (Maccheroni, Marinacci, and Rustichini 2006), Prospect Theory (Kahneman and Tversky 1979), Regret Theory (Bell 1982; Loomes and Sugden 1982), and Disappointment Theory (Bell 1985; Loomes and Sugden 1986).¹

Rank-Dependent Utility

Preferences are complete and reference-independent. In all lotteries the DM holds a single belief. Simplifying (1) and (2) from the main text, utilities are given by

$$\begin{aligned}U_{RD}(Original) &= w + W(0.5) x \\U_{RD}(Alternative) &= w + b + W(0.5) x.\end{aligned}$$

The DM will switch tickets when switching is rewarded with a bonus.

Models of Ambiguity Aversion

Next I discuss the predictions of the major models of ambiguity aversion: Maxmin Expected Utility, Smooth Ambiguity Preferences, and Variational Preferences.

¹A recent theory of reference-dependent preferences proposed by Krähmer and Stone (2013) allows for both regret and disappointment. This theory also predicts a switch. See Sautua (2016) for a detailed discussion of this and other predictions made by Krähmer and Stone’s theory.

In these models, preferences are complete and reference-independent. When the lottery is ambiguous the DM entertains multiple beliefs. The probability weighting function equals the identity function.

Maxmin Expected Utility

The utilities of the tickets are

$$\begin{aligned} U_{MEU}(Original) &= \text{Min}_{P(S) \in [1-p, p]} [w + P(S) x] \\ U_{MEU}(Alternative) &= \text{Min}_{P(S) \in [1-p, p]} [w + b + (1 - P(S)) x]. \end{aligned}$$

The DM evaluates each ticket in the most pessimistic way, given her set of beliefs $[1 - p, p]$. The DM is indifferent between the tickets in the absence of a switching bonus. On the other hand, when there is a bonus she strictly prefers the Alternative Ticket and hence will switch tickets.²

Smooth Ambiguity Preferences

The utilities of the tickets are

$$\begin{aligned} U_{SP}(Original) &= \int_{P(S) \in [1-p, p]} \phi(w + P(S) x) d\mu(P(S)) \\ U_{SP}(Alternative) &= \int_{P(S) \in [1-p, p]} \phi(w + b + (1 - P(S)) x) d\mu(P(S)), \end{aligned}$$

for some increasing function $\phi(\cdot)$ and subjective probability distribution $\mu(\cdot)$ over $P(S)$. For each $P(S) \in [1 - p, p]$ the expected utilities of the tickets are $w + P(S) x$ and $w + b + (1 - P(S)) x$, and the DM is averse to the uncertainty in these expected utility levels that results from her subjective uncertainty about $P(S)$ as represented by $\mu(\cdot)$. Because the DM is clueless about the probability distribution of the likelihood of S over the range $[1 - p, p]$, it is natural to assume that $\mu(\cdot)$

²Ghirardato et al. (2004) introduce a generalization of the Maxmin Model called the α -Maxmin Model. Given some $\alpha \in [0, 1]$, the utilities of the tickets are

$$\begin{aligned} U_{\alpha MEU}(Original) &= \alpha \text{Min}_{P(S) \in [1-p, p]} [w + P(S)x] + (1 - \alpha) \text{Max}_{P(S) \in [1-p, p]} [w + P(S)x] \\ U_{\alpha MEU}(Alternative) &= \alpha \text{Min}_{P(S) \in [1-p, p]} [w + b + (1 - P(S))x] \\ &\quad + (1 - \alpha) \text{Max}_{P(S) \in [1-p, p]} [w + b + (1 - P(S))x]. \end{aligned}$$

Notice that the Maxmin Model corresponds to $\alpha = 1$. The α -Maxmin Model also implies indifference in the absence of a switching bonus and a strict preference for the Alternative Ticket when there is a bonus.

is the uniform distribution with support $[1 - p, p]$.³ Since $\phi(\cdot)$ is increasing, it follows that the DM will switch tickets when the Alternative Ticket pays a bonus.

Variational Preferences

The utilities of the tickets are

$$\begin{aligned} U_{VP}(Original) &= \text{Min}_{P(S) \in [1-p, p]} [w + P(S) x + \eta(P(S))] \\ U_{VP}(Alternative) &= \text{Min}_{P(S) \in [1-p, p]} [w + b + (1 - P(S)) x + \eta(1 - P(S))], \end{aligned}$$

for some nonnegative convex function $\eta(\cdot)$. We can see that the DM will switch tickets when the Alternative Ticket pays a bonus.

Prospect Theory

Preferences are complete and reference-dependent. The DM holds a single belief. The reference point is the same for both tickets and is fixed at initial wealth w : $R_O = R_A = R \equiv (S : w, S^C : w)$. Because final wealth with either ticket is at least as large as initial wealth, both tickets involve potential gains but do not yield any loss. At the moment of the keep-or-switch decision, the DM anticipates any potential gain relative to initial wealth. Simplifying (1) and (2) from the main text, utilities are given by

$$\begin{aligned} U_{PT}(Original|R) &= w + W(0.5) x + W(0.5) \mu(x) \\ U_{PT}(Alternative|R) &= w + b + W(0.5) x \\ &\quad + [(1 - W(0.5)) \mu(b) + W(0.5) \mu(b + x)]. \end{aligned}$$

The DM will switch tickets when switching is rewarded with a bonus.⁴

Regret Theory

The DM entertains a single belief. The probability weighting function equals the identity function. Preferences are complete and reference-dependent. When the

³That is,

$$\mu(P(S)) = \begin{cases} \frac{1}{2^{p-1}} & \text{if } P(S) \in [1 - p, p] \\ 0 & \text{if } P(S) \notin [1 - p, p] \end{cases} .$$

⁴Strictly speaking, Prospect Theory does not feature consumption utility in its original formulation. Thus, to follow the theory closely I should write utilities as $U_{PT}(Original|R) = W(0.5) \mu(x)$ and $U_{PT}(Alternative|R) = (1 - W(0.5)) \mu(b) + W(0.5) \mu(b + x)$. It is clear, however, that the prediction of the theory remains the same.

DM evaluates a ticket, the referent is the *other* ticket. That is, we can write the referents as $R_O \equiv (S : w + b, S^C : w + b + x)$ and $R_A \equiv (S : w + x, S^C : w)$.

Consider how a DM feels after playing the lottery. Given the realized state of the world, the DM compares the outcome of the chosen ticket with the outcome of the rejected ticket. If the chosen ticket wins the lottery, the DM feels happy as she knows that she would have failed to win had she made a different choice. That is, winning produces *rejoicing*. On the other hand, if the chosen ticket fails to win, the DM feels sad as she knows that she would have won had she chosen the other ticket. A failure to win induces *regret* about the choice made. At the moment of the keep-or-switch decision, the DM anticipates any rejoicing or regret that could result from her choice. Simplifying (1) and (2) from the main text, the utilities of the tickets are

$$\begin{aligned} U_{RT}(\text{Original}|R_O) &= w + 0.5 x + [0.5 \mu(x - b) + 0.5 \mu(-x - b)] \\ U_{RT}(\text{Alternative}|R_A) &= w + b + 0.5 x + [0.5 \mu(b - x) + 0.5 \mu(x + b)]. \end{aligned}$$

Loss aversion produces *regret aversion*: regret following a failure to win is felt more severely than rejoicing following a win. Regret aversion, however, does not play a role in the choice between tickets. In the absence of a switching bonus, the tickets are ex-ante identical and hence the DM is indifferent between them. A switching bonus, on the other hand, makes the Alternative Ticket more attractive: now the Alternative Ticket yields higher consumption utility, a smaller expected loss, and a larger expected gain. Thus, when $b > 0$ the DM will switch tickets.

Disappointment Theory

The DM holds a single belief. The probability weighting function equals the identity function. Preferences are complete and reference-dependent. The reference point of a ticket is fixed at the certainty equivalent of the ticket, based on its consumption utility. That is, $R_O \equiv (S : w + 0.5 x, S^C : w + 0.5 x)$ and $R_A \equiv (S : w + b + 0.5 x, S^C : w + b + 0.5 x)$.

Consider how the DM feels once the lottery is resolved. Because winning the prize yields a gain relative to the certainty equivalent of the ticket, the DM experiences *elation* if she wins. Conversely, since failing to win yields a loss relative to the certainty equivalent, the DM experiences *disappointment* if she does not win. At the moment of the keep-or-switch decision, the DM anticipates any elation or disappointment that could result from her choice. Simplifying (1) and (2) from

the main text, the utilities of the tickets are

$$\begin{aligned}
 U_{DT}(Original|R_O) &= w + 0.5 x + [0.5 \mu(0.5 x) + 0.5 \mu(-0.5 x)] \\
 U_{DT}(Alternative|R_A) &= w + b + 0.5 x + [0.5 \mu(-0.5 x) + 0.5 \mu(0.5 x)].
 \end{aligned}$$

Loss aversion produces *disappointment aversion*: disappointment resulting from a failure to win is felt more severely than elation following a win. Disappointment aversion, however, does not affect the DM's choice behavior. In the absence of a switching bonus, the tickets are ex-ante identical and hence the DM is indifferent. In contrast, when there is a bonus the DM strictly prefers the Alternative Ticket, as it features the same potential for disappointment and elation as the Original Ticket but yields higher consumption utility. Therefore, when $b > 0$ the DM will switch tickets.

B List of Academic Majors

Majors that are Math-intensive or intensive in formal logic: Actuarial Mathematics; Aerospace Engineering; Applied Mathematics; Architecture; Astrophysics; Biochemistry; Bioengineering; Biophysics; Business Economics; Chemical Engineering; Chemistry; Civil Engineering; Computational and Systems Biology; Computer Science; Economics; Earth & Environmental Sciences; Electrical Engineering; Environmental Engineering; Finance; Financial Actuarial Mathematics; Financial Engineering; Geophysics & Space Physics; Masters in Business Administration; Materials Science; Mechanical Engineering; Philosophy; Physics; Statistics.

Majors that are neither Math-intensive nor intensive in formal logic: Afro-American Studies; Anthropology; Applied Linguistics; Art; Art History; Asian American Studies; Asian Humanities; Asian Studies; Atmospheric, Oceanic and Environmental Sciences; Biology; Chicano Studies; Chinese; Classical Civilization; Cognitive Sciences; Communication Studies; Comparative Literature; Culture & Performance; Design Media Arts; Ecology & Evolutionary Biology; Education; English; Environmental Sciences; Epidemiology; Ethnomusicology; French; Gender Studies; Geography; Global Studies; History; Human Biology & Society; International Development Studies; Law; Linguistics; Music Performance; Marine Biology; Masters of Information & Library Sciences; Microbiology, Immunology & Molecular Genetics; Molecular Toxicology; Molecular, Cell & Developmental

Biology; Music; Neuroscience; Nursing; Physiological Sciences; Political Science; International Relations; Psychobiology; Psychology; Public Health; Public Policy; Social Welfare; Sociology; Study of Religion; Undecided.

C Preference over Colors in the BASE Condition

The BASE condition fails to fully control for the influence of the intrinsic preferences over colors on choice behavior. Yet, in this appendix I show that excess inertia from BASE cannot be fully explained by the preference over colors. Divide the population of DMs into the following mutually exclusive types based on their preferences: Knightian, R-D SEU maximizers, Color Choosers (those DMs who pick their preferred color when they are indecisive), and Other. Each DM is randomly assigned to one of the experimental conditions. Let $P(\textit{Keep}|\textit{Condition } i)$ denote the proportion of participants from Condition i who keep the Original Ticket. Such proportion defines the amount of inertia from Condition i . By the Law of Total Probability, we have that

$$P(\textit{Keep}|\textit{Condition } i) = \sum_j P(\textit{Keep}|\textit{Condition } i, \textit{Type } j) P(\textit{Type } j|\textit{Condition } i). \quad (1)$$

First notice that random assignment to experimental conditions ensures that the distribution of types remains the same across conditions: $P(\textit{Type } j|\textit{BASE}) = P(\textit{Type } j|\textit{CONTROL})$. The theoretical framework predicts that Knightian DMs and R-D SEU maximizers will stick with the Original Ticket in the BASE condition but will switch in the CONTROL condition. In addition, a proportion $\mu \in (0, 1)$ of Other DMs are predicted to stick with the Original Ticket in both conditions: $P(\textit{Keep}|\textit{Condition } i, \textit{Other}) = \mu$, $i = \textit{BASE}, \textit{CONTROL}$. These are DMs who are inattentive, or who do not care about the keep-or-switch decision, or who believe in fate, etc. The proportion $1 - \mu$ of Other DMs who do switch are the ones whose preferences I discussed in Section 2.1 from the main text and in Appendix A (SEU maximizers, Maxmin EU maximizers, etc.).⁵

⁵For expositional convenience, I have abstracted from decision errors. The specification of type-specific choice probabilities, however, can be reinterpreted in a way that accommodates decision errors. First, assume that Knightian DMs and R-D SEU maximizers do not make mistakes—they always keep the Original Ticket in the BASE condition but switch in the CONTROL condition. Second, think of inertia among Other DMs as a result of both choices based on a genuine preference for the Original Ticket and decision errors. Some DMs of the Other type have a true preference for the Original Ticket (e.g., those who believe in fate); others would

Now consider the predictions for choice behavior among the Color Choosers. Because tickets are randomly assigned in the BASE condition, half of the Color Choosers will stick with the Original Ticket. On the other hand, since the Alternative Ticket has a higher expected value than the Original one in the CONTROL condition, all DMs of this type will switch in the CONTROL condition. That is,

$$P(\text{Keep}|\text{Condition } i, \text{Color Choosers}) = \begin{cases} 0 & \text{if } i = \text{CONTROL} \\ 0.5 & \text{if } i = \text{BASE} \end{cases}.$$

Replacing the type-specific choice probabilities for the BASE and CONTROL conditions in (1), we obtain:

$$\begin{aligned} P(\text{Keep}|\text{BASE}) &= P(\text{Knightian}) + P(\text{R-D SEU}) \\ &\quad + 0.5 P(\text{Color Choosers}) + \mu P(\text{Other}) \\ P(\text{Keep}|\text{CONTROL}) &= \mu P(\text{Other}). \end{aligned}$$

Thus,

$$\begin{aligned} P(\text{Keep}|\text{BASE}) - P(\text{Keep}|\text{CONTROL}) &= P(\text{Knightian}) + P(\text{R-D SEU}) \\ &\quad + 0.5 P(\text{Color Choosers}). \end{aligned}$$

The problem is to assess whether excess inertia from the BASE condition (i.e., the left-hand side of the above equality) might be entirely driven by Color Choosers. Suppose this is the case—that is, suppose that there are no Knightian DMs or R-D SEU maximizers. Then, $P(\text{Keep}|\text{BASE}) - P(\text{Keep}|\text{CONTROL}) = 0.5 P(\text{Color Choosers})$. Replacing excess inertia on the left-hand side with its sample value, we can solve for $P(\text{Color Choosers})$; this yields $P(\text{Color Choosers}) = 0.78$. In turn, this implies that $P(\text{Other}) = 0.22$. Finally, using that $\mu = \frac{P(\text{Keep}|\text{CONTROL})}{P(\text{Other})}$ we obtain $\mu = 1.41$, which violates the restriction $\mu < 1$. This shows that excess inertia from the BASE condition is too large to be entirely driven by the preference over colors. Put differently, this exercise provides further support for the claim that regret aversion and indecisiveness are jointly significant determinants of inertia in BASE.

actually prefer to switch but mistakenly end up sticking with the Original Ticket (e.g., some inattentive SEU maximizers).

D Economic Applications

In this appendix I provide three examples to illustrate how economic behavior of a SEU maximizer could differ from that of a R-D SEU maximizer or that of a Knightian DM. As in the main text, I assume that consumption utility is linear and the gain-loss function is piecewise-linear with $\eta = 1$.

Technology Adoption

A farmer has long been using a production technology whose yield is \$10 worth of crops. She learns that a new production technology is available. This technology yields either \$12 or \$9 worth of crops, but the probability distribution of the yield is yet unknown. The farmer considers switching to the new technology. What will she decide?

If the farmer is a SEU maximizer who believes that each possible outcome could occur with equal probability, then she will switch. Now consider a R-D SEU maximizer that maintains the same belief. Because she has been using the current technology for a long time, she perceives its payoff as the reference point. Thus, the utility of sticking with the current technology is $w + 10$. On the other hand, the farmer anticipates that switching might result in a gain of \$2 or a loss of \$1. This implies that the expected utility of switching is $w + 10.5 + 0.5 [2 - \lambda]$. She will prefer to stick with the current technology if and only if $\lambda > 3$. Last, consider a Knightian DM who believes that the likelihood of the high yield lies within the range $[0.2, 0.8]$. (Thus, $p = 0.8$.) Keeping the current technology would be strictly preferred if and only if $1 - p > \frac{1}{3}$, while switching would be strictly preferred if and only if $p < \frac{1}{3}$. Because $1 - p < \frac{1}{3}$ and $p > \frac{1}{3}$, the farmer will remain indecisive and hence will stick with the status quo.

Investment

An investor faces a business opportunity that features a fixed cost of \$0.50, and a payoff of \$1 if state S occurs and $-\$0.9$ otherwise. The investor does not know the likelihood of S but believes that it lies within the range $[0.2, 0.8]$. The government offers a subsidy that covers the full fixed cost. Will the investor take up this business opportunity?

A SEU maximizer (whose belief is 0.5) will take advantage of the large government subsidy and will decide to invest. Notice that she would not invest if the fixed cost were not subsidized. Thus, in this case the subsidy has a large effect on

the investor's behavior.

Now consider a Knightian DM. If she knew that the actual likelihood of S is close to 0.8, investing would be optimal; on the other hand, if she knew that the likelihood is close to 0.2, she would prefer not to invest. Because the investor believes that the likelihood of S could take any value between 0.2 and 0.8, she will be indecisive and hence will not invest. In this case, the large government subsidy is insufficient to induce the investor to take up the business opportunity. This example suggests that choice behavior in ambiguous environments may be significantly less sensitive to changes in relevant economic variables than standard models (like SEU) would predict.⁶

Health Insurance

This example builds on one provided by Bell (1982, p. 972). If a DM becomes ill, her recovery requires medical expenses that amount to \$1. She believes that the probability that she will become ill is $0 < \pi < 1$. She currently does not have health insurance. The insurance premium is π . Will the DM purchase insurance?

A SEU maximizer will be indifferent as the insurance contract is fair. Now consider a R-D SEU maximizer whose reference point is determined by expectations. Suppose that her original plan was to remain uninsured. This implies that her reference point is the status quo (i.e., lack of insurance). The expected utility of remaining uninsured is $w - \pi$. On the other hand, the purchase of health insurance yields a gain of $\pi(1 - \pi)$ if the DM becomes ill and a loss of π if she does not. The potential gain comes from the prospect of saving money in case she gets sick, while the potential loss comes from the feeling that the insurance premium is a waste of money if she does not get sick. Thus, the expected utility of being insured is $w - \pi + [\pi(1 - \pi) - (1 - \pi)\lambda\pi]$. A loss-averse DM ($\lambda > 1$) whose original plan was to remain uninsured will follow through on her plan.

Now suppose that a policy that gets the DM to think carefully about the benefits of health insurance induces her to plan to insure. Given this plan, the DM will come to perceive the purchase of insurance as the reference point. In this

⁶Two studies document that choices made by many individuals in ambiguous environments are relatively insensitive to changes in economic variables. In a laboratory experiment on asset markets, Bossaerts et al. (2010) find that many participants hold a portfolio that yields identical wealth across ambiguous states of the world for an open set of prices and probabilities. This finding cannot be readily reconciled with SEU and is consistent with preferences that display ambiguity aversion. Using data from a field experiment with Malawian farmers, Bryan (2013) finds that the provision of partial insurance is less likely to induce the adoption of a new crop among farmers measured to be ambiguity-averse.

case, the expected utility of being insured is $w - p$. On the other hand, being uninsured brings a loss of $\$(1 - \pi)$ if the DM becomes ill and a gain of $\$\pi$ if she does not. The potential loss comes from the additional medical expenses in case of illness, whereas the potential gain comes from saving the insurance premium in the good health scenario. Therefore, the expected utility of remaining uninsured is $w - \pi + [-\lambda\pi(1 - \pi) + (1 - \pi)\pi]$. Now the DM will switch away from the status quo and will purchase insurance.⁷

References for Appendix

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⁷Research in social psychology has documented a ‘mere-measurement effect’: asking people whether they are likely to engage in a certain behavior can induce them to engage in such behavior (Greenwald et al. 1987; Morwitz and Johnson 1993; Levav and Fitzsimons 2006). One possible explanation for this effect is that measuring people’s intentions may induce people to make a plan, and loss-averse individuals are likely to go through the plan because a deviation might produce a loss. This hypothesis suggests that simply measuring people’s intentions to purchase health insurance might make it more likely that they actually insure.

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Appendix Tables

Appendix Table A1 summarizes some demographic characteristics of the pool of participants. (Participants reported this information on one of the forms that they filled out.) For each experimental condition, it shows the percentage of participants who previously participated in other experiments (at any lab on campus and at the Anderson Behavioral Lab in particular), are women, are Asian, are undergraduate students, pursue a major that is Math-intensive or intensive in formal logic, and are native English speakers. For each of these observable characteristics, the last column of the table displays the result of a chi-square test of differences in proportions across conditions. Although some differences do exist, particularly in the proportions of undergraduate students and native English speakers, participants seem to be broadly balanced on observable characteristics.

Table A1
Demographic Characteristics of Participants

Variable	Condition							Chi-Square Test
	BASE (N = 50)	TRUST (N = 51)	CONTROL (N = 49)	REG (N = 52)	END (N = 47)	IND (N = 48)	BCR (N = 49)	p-value*
Other Experiments (%)	86	82	84	78	83	67	84	0.251
Anderson Lab (%)	74	71	73	63	74	50	71	0.107
Female (%)	80	80	82	82	72	75	73	0.796
Asian (%)	62	57	61	57	60	46	43	0.335
Undergraduate (%)	92	96	94	86	94	79	71	0.001
Math-Related Major (%)	46	33	31	33	28	44	24	0.217
English 1 st Language (%)	60	67	67	80	81	63	82	0.046

* The p-values are for chi-square tests of differences in proportions. For each variable, the null hypothesis is that the percentage of participants with the relevant characteristic is the same in all experimental conditions.

Table A2
Summary of Sessions

Condition	Date	Time	Number of Participants	Number of Keep Choices	Percentage of Keep Choices
BASE	March 05 2014	11 AM	7	4	57%
	November 12 2013	12:30 PM	10	4	40%
	November 18 2013	2 PM	11	11	100%
	November 19 2013	1:20 PM	12	8	67%
	November 20 2013	2:20 PM	10	8	80%
	TOTAL		50	35	70%
TRUST	October 7 2014	11 AM	11	9	82%
	October 7 2014	12 PM	9	6	67%
	October 8 2014	2:30 PM	11	10	91%
	October 8 2014	3:30 PM	9	6	67%
	October 9 2014	12:30 PM	11	9	82%
	TOTAL		51	40	78%
CONTROL	April 08 2014	5 PM	12	4	33%
	February 10 2014	2 PM	10	3	30%
	January 29 2014	2:30 PM	9	3	33%
	January 29 2014	10:30 AM	7	1	14%
	January 31 2014	3:15 PM	11	4	36%
	TOTAL		49	15	31%
REG	February 24 2014	2:30 PM	12	7	58%
	February 24 2014	3:15 PM	11	6	55%
	February 24 2014	11 AM	10	7	70%
	February 26 2014	2:30 PM	10	5	50%
	March 07 2014	2:30 PM	9	3	33%
	TOTAL		52	28	54%
END	May 20 2014	4:45 PM	10	6	60%
	May 20 2014	5:30 PM	8	3	38%
	May 22 2014	11 AM	5	0	0%
	May 23 2014	4 PM	8	3	38%
	May 29 2014	11:10 AM	10	1	10%
	May 30 2014	10:10 AM	6	4	67%
TOTAL		47	17	36%	
IND	March 05 2014	2:30 PM	10	7	70%
	November 12 2013	2 PM	9	5	56%
	November 18 2013	2:50 PM	12	11	92%
	November 19 2013	12:30 PM	8	8	100%
	November 20 2013	3:10 PM	9	7	78%
	TOTAL		48	38	79%
BCR	August 25 2014	4 PM	11	4	36%
	August 25 2014	4:45 PM	4	3	75%
	August 26 2014	4 PM	8	4	50%
	August 28 2014	2:30 PM	3	1	33%
	August 28 2014	3:30 PM	5	2	40%
	September 2 2014	4 PM	3	2	67%
	September 4 2014	3 PM	5	2	40%
	September 4 2014	4 PM	3	2	67%
	September 9 2014	3 PM	7	4	57%
	TOTAL		49	24	49%

APPENDIX, SECTION E: EXPERIMENTAL PROCEDURES, INSTRUCTIONS, AND FORMS

BASE CONDITION

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #1, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- The experimenter comes by each participant's desk. Each participant picks an envelope containing a ticket. Half of the participants receive a RED ticket and the other half receives a BLUE ticket.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. At this time, they are informed that they have the chance to switch tickets and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

General Instructions

Welcome to this session. Thanks for coming.

This session will take about 35 minutes. You will receive a \$6 minimum payment if you complete the study. These \$6 are yours. In the session you will have the chance to earn additional money. Whatever you earn from the study today will be added to this minimum payment. All payments will be made with Bruincard deposits in the next two or three weeks.

During this short study, you will be asked to fill out some questionnaires and you will play an individual lottery that involves real money.

Your questionnaire responses as well as the lottery outcome will be kept strictly confidential. At your carrel, you will find a sticker with your Participant ID Number. Please write down this number on the front page of each of the forms that you fill out.

Before we begin, we ask you to respect the following guidelines:

- No talking is allowed. If you have any questions during the study, please raise your hand. I will come to your place and answer your question privately.
- Every participant's task is individual and should be completed in private. Do not look at what other participants are doing.

If you do not comply with these rules, we will be forced to exclude you from the study. Thank you for your cooperation.

Should you have any questions or concerns at this point, please raise your hand. Otherwise, we will move on to the specific instructions.

Specific Instructions #1

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant.

On the front desk you see two identical bags. As of now, they are empty. Each assistant will keep one of the bags in a separate room next door throughout the session.

At the end of the session, each assistant will fill her bag with 10 red and blue balls in total. After setting up the bag, she will call half of the participants, one at a time, and she will randomly draw a ball in front of each participant. Then she will put the ball back into the bag.

In a minute, you will receive a ticket to play an INDIVIDUAL lottery. You will get ONE of two types of tickets:

- (a) The RED ticket pays \$10 if the assistant randomly draws a RED ball from the bag, and nothing if she draws a blue ball.
- (b) The BLUE ticket pays \$10 if the assistant randomly draws a BLUE ball from the bag, and nothing if she draws a red ball.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

To determine which ticket you get, I will come by your desk and you will pick an envelope from this box I am showing to you. The envelope contains a ticket. Half of you will receive a RED ticket and the other half will get a BLUE ticket. This way, tickets will be randomly assigned.

You can be sure that the bag will have one of the following compositions:

- (i) 8 red balls and 2 blue balls

OR

- (ii) 2 red balls and 8 blue balls.

In other words, the bag will have

- (i) 80% red balls and 20% blue balls

OR

- (ii) 20% red balls and 80% blue balls.

The assistant will set up the bag for each participant AS SHE PLEASES. She is the ONLY person in the lab who will know the actual composition of the bag. She will not reveal this information to anyone at any time, not even after resolving the lottery.

Once the assistant has set up the bag, she will call you INDIVIDUALLY and will randomly draw a ball in front of you.

After drawing a ball, she will check which ticket you are playing and hence will determine whether or not you won the prize.

Please note that, at the moment of setting up the bag in the room next door, the assistant will not know which ticket you are playing. She will only check your ticket after drawing a ball. This way, you can be assured that this is a fair lottery.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, I will come by your desk and you will pick an envelope with a ticket. Please check which ticket you have and stick your Participant ID Number on the envelope. You will take the envelope with you to the room next door when the assistant calls you.

Then, you will provide some personal information and fill out the first part of a personality questionnaire.

Participant ID Number: _____

Personal Information

All responses will be kept strictly confidential.

(1) Have you participated in other studies conducted in a lab on campus? If yes, please indicate which labs you have been to.

(2) What is your age?

(3) What is your gender? Male _____ Female _____

(4) What is your racial or ethnic background?

White or Caucasian _____ Black or African American _____ Hispanic _____
Asian _____ Native American _____ Multiracial _____ Other _____

(5) What is your major? If you have one, please specify it. If not, indicate “undecided”.

(6) What year are you classified for in the current semester?

Freshman _____ Sophomore _____ Junior _____ Senior _____
Masters student _____ Doctoral student _____

(7) Please indicate the country where you were raised.

(8) What is your native language?

Questionnaire: How I am in general (Part I)

Here are a number of characteristics that may or may not apply to you. For each statement in the table, please indicate the extent to which you agree or disagree with that statement, by checking the appropriate column.

All responses will be kept strictly confidential.

I am someone who...	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neither Agree Nor Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
Is talkative					
Tends to find fault with others					
Does a thorough job					
Is depressed					
Is original, comes up with new ideas					
Is reserved					
Is helpful and unselfish with others					
Can be somewhat careless					
Is relaxed, handles stress well					
Is curious about many different things					
Is full of energy					
Starts quarrels with others					
Is a reliable worker					
Can be tense					
Is ingenious, a deep thinker					
Generates a lot of enthusiasm					
Has a forgiving nature					
Tends to be disorganized					
Worries a lot					
Has an active imagination					
Tends to be quiet					
Is generally trusting					

Once you are done, please raise your hand. I will come by your desk and give you another handout.

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You have a ticket to play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, one of the assistants will call you individually to play the lottery in a room next door.

If you are playing a RED ticket, you will win the prize if the assistant draws a red ball.

If you are playing a BLUE ticket, you will win the prize if the assistant draws a blue ball.

The bag contains either

(i) 80% red balls and 20% blue balls

OR

(ii) 20% red balls and 80% blue balls.

The assistant will set up the bag AS SHE PLEASES, without knowing which ticket you are playing.

She will not reveal the composition of the bag to anyone at any time.

Now you can go ahead and complete the second part of the personality questionnaire.

Questionnaire: How I am in General (Part II)

Here are a number of characteristics that may or may not apply to you. For each statement in the table, please indicate the extent to which you agree or disagree with that statement, by checking the appropriate column.

All responses will be kept strictly confidential.

I am someone who...	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neither Agree Nor Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
Tends to be lazy					
Is emotionally stable, not easily upset					
Is inventive					
Has an assertive personality					
Can be cold and aloof					
Perseveres until the task is finished					
Can be moody					
Values artistic, aesthetic experiences					
Is sometimes shy, inhibited					
Is considerate and kind to almost anyone					
Does things efficiently					
Remains calm in tense situations					
Prefers work that is routine					
Is outgoing, sociable					
Is sometimes rude to others					
Makes plans and follows through with them					
Gets nervous easily					
Likes to reflect, play with ideas					
Has few artistic interests					
Likes to cooperate with others					
Is easily distracted					
Is sophisticated in art, music or literature					

Once you are done, please raise your hand. I will come by your desk and give you further instructions.

Participant ID Number: _____

Decision Form

Thanks for completing the previous questionnaires.

Soon you will play the lottery. Recall that there is a \$10 prize.

You have the chance to switch to the alternative ticket (the one that corresponds to the other color), if you so desire.

If you switch, you will receive \$0.10 in addition to what you get from the lottery.

Please indicate your decision below:

_____ I want to **KEEP** the original ticket

_____ I want to **SWITCH** to the alternative ticket

Your decision will be kept strictly confidential.

Should you have any questions before making the decision, please raise your hand and I will come by your desk.

Once you are done, please fold the Decision Form and raise your hand. I will let the assistants know that you are ready to play the lottery.

TRUST CONDITION

Procedures

- Participants are recruited using the lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number. Then, they are read General Instructions.
- Participants are given a handout with Specific Instructions #1. The experimenter reads these instructions aloud. The tickets are randomly assigned.
- Participants are given a handout with Specific Instructions #2. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #2, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #3, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. They are informed that they have the chance to switch to the alternative ticket and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

There is one red ball and one blue ball inside this small bag I am holding. Please pass the bag along and check it out.

On your carrel you can find an empty envelope, a blank card, and a pencil. Feel free to inspect these materials.

Next, I will come by your desk and you will randomly draw a ball from the bag. You are the only person that should see the color of the ball you drew. After you check the color, please put the ball back into the bag.

Then, once I leave your desk, write down the color you drew on the blank card. Wait for me to leave your desk so that I cannot see what you write on the card. Please make sure your handwriting is clear.

Last, place the card inside the envelope. Please stick your participant ID Number on the envelope.

In a moment, I will explain to you what we will use the cards for.

Specific Instructions #2

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant.

On the front desk you see two identical bags. As of now, they are empty. Each assistant will keep one of the bags in a separate room next door throughout the session.

At the end of the session, each assistant will fill her bag with 10 red and blue balls in total. After setting up the bag, the assistant will call half of the participants, one at a time, and she will randomly draw a ball in front of them. Then she will put the ball back into the bag.

You will use the card that you placed inside the envelope to play an INDIVIDUAL lottery. The card is a ticket to play the lottery.

- (a) The RED ticket pays \$10 if the assistant randomly draws a RED ball from the bag, and nothing if she draws a blue ball.
- (b) The BLUE ticket pays \$10 if the assistant randomly draws a BLUE ball from the bag, and nothing if she draws a red ball.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

You can be sure that the bag will have one of the following compositions:

- (i) 8 red balls and 2 blue balls

OR

- (ii) 2 red balls and 8 blue balls.

In other words, the bag will have

- (i) 80% red balls and 20% blue balls

OR

- (ii) 20% red balls and 80% blue balls.

The assistant will set up the bag AS SHE PLEASES. She is the ONLY person in the lab who will know the actual composition of the bag. She will not reveal this information to anyone at any time, not even after resolving the lottery.

Once the assistant has set up the bag, she will call you INDIVIDUALLY and will randomly draw a ball in front of you.

After drawing a ball, she will check which ticket you are playing and hence will determine whether or not you won the prize.

Please note that, at the moment of setting up the bag in the room next door, the assistant will not know which ticket you are playing. You are the only person who will know your ticket until the lottery is resolved. Also, the assistant will only check your ticket after drawing a ball. This way, you can be assured that this is a fair lottery.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions. Then, participants received “Specific Instructions #3,” which were identical to “Specific Instructions #2” from the BASE condition. After the experimenter read these instructions aloud, participants filled out the form titled “Questionnaire: How I am in General (Part II),” which was identical for all conditions. Finally, participants filled out the Decision Form, which was identical to the one from the BASE condition.]

CONTROL CONDITION, version H (Horizontal Stripe is the Status Quo)

[Version V differs from version H only in the status quo die. To reproduce the instructions for version V, take the ones from version H and replace the word HORIZONTAL with the word VERTICAL and the word VERTICAL with the word HORIZONTAL.]

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #1, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. At this time, they are informed that they have the chance to use the alternative die (instead of the original one) and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant. Each assistant will stay in a separate room next door throughout the session.

On your desk you can see two identical 10-sided dice with numbers 0-9. Feel free to inspect the dice to verify that they are indeed identical.

In addition, you can see two empty plastic cups. One has been labeled with a HORIZONTAL stripe and the other one has been labeled with a VERTICAL stripe. Feel free to inspect the cups to check that they are otherwise identical.

Now, please place one die inside each cup. You will use the die inside the cup labeled with a HORIZONTAL stripe to play an INDIVIDUAL lottery at the end of the session.

The lottery works as follows. At the end of the session, you will grab the cup labeled with a HORIZONTAL stripe and you will line up in the hallway. One of the assistants will call you individually. Then, once you are inside the room, you will roll the die in front of the assistant.

If the die comes up 0, 1, 2, 3 or 4, you will get \$10. If it comes up 5, 6, 7, 8 or 9, you will get nothing.

The assistant will simply record the outcome of the lottery. Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions.]

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You will play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, one of the assistants will call you individually to play the lottery in a room next door.

You will take the cup that has a HORIZONTAL stripe with you and you will roll the die in front of the assistant.

If the die comes up 0, 1, 2, 3 or 4, you will get \$10. If it comes up 5, 6, 7, 8 or 9, you will get nothing.

Now you can go ahead and complete the second part of the personality questionnaire.

[Next, participants filled out the form titled "Questionnaire: How I am in General (Part II)," which was identical for all conditions.]

Participant ID Number: _____

Decision Form

Thanks for completing the previous questionnaires.

Soon you will play the lottery. Recall that there is a \$10 prize.

You have the chance to switch to the alternative die (the one inside the cup labeled with a VERTICAL stripe), if you so desire. All you have to do is grab the cup labeled with a VERTICAL stripe instead of the cup labeled with a HORIZONTAL stripe when you line up to play the lottery.

If you switch to the alternative die, you will receive \$0.10 in addition to what you get from the lottery.

Please indicate your decision below:

_____ I want to KEEP the original die

_____ I want to SWITCH to the alternative die

Your decision will be kept strictly confidential.

Should you have any questions before making the decision, please raise your hand and I will come by your desk.

Once you are done, please fold the Decision Form and raise your hand. I will let the assistants know that you are ready to play the lottery.

REG CONDITION

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #1, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- The experimenter comes by each participant's desk. Each participant picks an envelope containing a ticket. Half of the participants receive an EVEN ticket and the other half receives an ODD ticket.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. At this time, they are informed that they have the chance to switch tickets and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant. Each assistant will stay in a separate room next door throughout the session.

Right now I have an empty plastic cup in my hand. Please pass it along and feel free to inspect it. We will use it in a minute.

On your desk you can see a 10-sided die with numbers 0-9, and a transparent plastic cup. Again, feel free to inspect these objects.

Now, I will collect the dice with the large plastic cup that you passed along.

Next, each assistant will randomly pick a die from the large cup.

Now, the assistants will also pick a transparent plastic cup from this pile. You can see that these transparent plastic cups are like the one you have on your desk. After picking a cup, the assistants will place the die into the cup. Each assistant will keep the die and the cup with her in the room next door until the end of the session.

At the end of the session, you will play an INDIVIDUAL lottery that will be resolved using the die.

The lottery works as follows. At the end of the session, you will line up in the hallway. One of the assistants will call you INDIVIDUALLY. Then, once you are inside the room, she will roll the die in front of you.

In a minute, you will get ONE of two types of tickets:

- (a) The ODD ticket pays \$10 if the die comes up 1, 3, 5, 7 or 9, and nothing otherwise.
- (b) The EVEN ticket pays \$10 if the die comes up 0, 2, 4, 6 or 8, and nothing otherwise.

To determine which ticket you get, I will come by your desk and you will pick an envelope from this box I am showing to you. The envelope contains a ticket. Half of you will receive an ODD ticket and the other half will get an EVEN ticket. This way, tickets will be randomly assigned.

After rolling the die, the assistant will check which ticket you are playing and will record the outcome of the lottery.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, I will come by your desk and you will pick an envelope with a ticket. Please check which ticket you have and stick your Participant ID Number on the envelope. You will take the envelope with you to the room next door when the assistant calls you.

Then, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions.]

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You will play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, one of the assistants will call you individually to play the lottery in a room next door.

Once you are inside the room, the assistant will roll the 10-sided die in front of you.

If you are playing an ODD ticket, you will win the prize if the die comes up 1, 3, 5, 7 or 9.

If you are playing an EVEN ticket, you will win the prize if the die comes up 0, 2, 4, 6 or 8.

After rolling the die, the assistant will check which ticket you are playing and will record the outcome of the lottery.

Now you can go ahead and complete the second part of the personality questionnaire.

[Next, participants filled out the form titled “Questionnaire: How I am in General (Part II),” which was identical for all conditions.]

Participant ID Number: _____

Decision Form

Thanks for completing the previous questionnaires.

Soon you will play the lottery. Recall that there is a \$10 prize.

You have the chance to switch to the alternative ticket, if you so desire.

If you switch, you will receive \$0.10 in addition to what you get from the lottery.

Please indicate your decision below:

_____ I want to KEEP the original ticket

_____ I want to SWITCH to the alternative ticket

Your decision will be kept strictly confidential.

Should you have any questions before making the decision, please raise your hand and I will come by your desk.

Once you are done, please fold the Decision Form and raise your hand. I will let the assistants know that you are ready to play the lottery.

END CONDITION

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud. At this time, participants are informed that they will have the chance to switch tickets and receive a \$0.10 bonus, if they so desire.
- Once the experimenter finishes reading Specific Instructions #1, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- The experimenter comes by each participant's desk. Each participant picks an envelope containing a ticket. Half of the participants receive an EVEN ticket and the other half receives an ODD ticket.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant. Each assistant will stay in a separate room next door throughout the session.

Right now I have an empty plastic cup in my hand. Please pass it along and feel free to inspect it. We will use it in a minute.

On your desk you can see a 10-sided die with numbers 0-9, and a transparent plastic cup. Again, feel free to inspect these objects.

Now, I will collect the dice with the large plastic cup that you passed along.

Next, each assistant will randomly pick a die from the large cup.

Now, the assistants will also pick a transparent plastic cup from this pile. You can see that these transparent plastic cups are like the one you have on your desk. After picking a cup, the assistants will place the die into the cup. Each assistant will keep the die and the cup with her in the room next door until the end of the session.

At the end of the session, you will play an INDIVIDUAL lottery that will be resolved using the die.

The lottery works as follows. At the end of the session, you will line up in the hallway. One of the assistants will call you INDIVIDUALLY. Then, once you are inside the room, she will roll the die in front of you.

In a minute, you will get ONE of two types of tickets:

- (a) The ODD ticket pays \$10 if the die comes up 1, 3, 5, 7 or 9, and nothing otherwise.
- (b) The EVEN ticket pays \$10 if the die comes up 0, 2, 4, 6 or 8, and nothing otherwise.

To determine which ticket you get, I will come by your desk and you will pick an envelope from this box I am showing to you. The envelope contains a ticket. Half of you will receive an ODD ticket and the other half will get an EVEN ticket. This way, tickets will be randomly assigned.

Before you play the lottery, you will have the chance to switch to the alternative ticket, if you so desire.

If you switch, you will receive \$0.10 in addition to what you get from the lottery.

I will give you a Decision Form, and all you will have to do is indicate whether you want to KEEP your original ticket or SWITCH to the alternative one, by checking the option that you prefer.

After rolling the die, the assistant will check your FINAL ticket and will record the outcome of the lottery.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, I will come by your desk and you will pick an envelope with a ticket. Please check which ticket you have and stick your Participant ID Number on the envelope. You will take the envelope and the Decision Form with you to the room next door when the assistant calls you.

Then, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions.]

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You will play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, one of the assistants will call you individually to play the lottery in a room next door.

Once you are inside the room, the assistant will roll the 10-sided die in front of you.

Before you play the lottery, you will have the chance to switch to the alternative ticket, if you so desire.

If you switch, you will receive \$0.10 in addition to what you get from the lottery.

I will give you a Decision Form, and all you will have to do is indicate whether you want to KEEP your original ticket or SWITCH to the alternative one, by checking the option that you prefer.

If you end up playing an ODD ticket, you will win the prize if the die comes up 1, 3, 5, 7 or 9.

If you end up playing an EVEN ticket, you will win the prize if the die comes up 0, 2, 4, 6 or 8.

After rolling the die, the assistant will check which ticket you are playing and will record the outcome of the lottery.

Now you can go ahead and complete the second part of the personality questionnaire.

[Next, participants filled out the form titled "Questionnaire: How I am in General (Part II)," which was identical for all conditions. Then, participants filled out the Decision Form, which was identical to the one from the REG condition.]

IND CONDITION

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #1, the assistants leave the main room and go to two separate rooms next door. They stay there until the end of the session.
- The experimenter comes by each participant's desk. Each participant picks an envelope containing a ticket. Half of the participants receive a RED₁ ticket and the other half receives a RED₂ ticket.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. At this time, they are informed that they have the chance to switch tickets and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants play the individual lottery in a room next door.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

Two assistants will help us today. They will do the same things but will proceed independently to help us run the session smoothly. So half of you will interact with one of the assistants, and the other half will interact with the other assistant.

On the front desk you see two pairs of identical bags. Within each pair, the bags are labeled Bag 1 and Bag 2. As of now, they are empty. Each assistant will keep one pair of bags in a separate room next door throughout the session.

At the end of the session, each assistant will fill each of the two bags with 10 red and blue balls in total. After setting up the bags, she will call half of the participants, one at a time, and she will randomly draw a ball from ONE of the bags in front of each participant. Then she will put the ball back into the bag.

In a minute, you will receive a ticket to play only ONE of two possible INDIVIDUAL lotteries. One lottery involves Bag 1 alone, while the other one involves Bag 2 alone. So you will get ONE of two types of tickets:

- (a) The RED_1 ticket involves Bag 1 only. It pays \$10 if the assistant randomly draws a RED ball from this bag, and nothing if she draws a blue ball.
- (b) The RED_2 ticket involves Bag 2 only. It pays \$10 if the assistant randomly draws a RED ball from this bag, and nothing if she draws a blue ball.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

To determine which ticket you get, I will come by your desk and you will pick an envelope from this box I am showing to you. The envelope contains a ticket. Half of you will receive a RED_1 ticket and the other half will get a RED_2 ticket. This way, tickets will be randomly assigned.

You can be sure that the compositions of the bags will be given by one of the following combinations:

- (i) Bag 1: 8 RED balls and 2 blue balls
Bag 2: 2 RED balls and 8 blue balls

OR

- (ii) Bag 1: 2 RED balls and 8 blue balls
Bag 2: 8 RED balls and 2 blue balls.

In other words, the compositions will be:

- (i) Bag 1: 80% RED balls
Bag 2: 20% RED balls

OR

- (ii) Bag 1: 20% RED balls
Bag 2: 80% RED balls.

The assistant will set up the bags for each participant AS SHE PLEASES. She is the ONLY person who will know the actual compositions of the bags. She will not reveal this information to anyone at any time, not even after resolving the lottery.

Once the assistant has set up the bags to play your own lottery, she will call you INDIVIDUALLY and will check which lottery you are playing. Then, she will randomly draw a ball from the corresponding bag in front of you, and she will record the outcome of the lottery.

Please note that, at the moment of setting up the bags in the room next door, the assistant will not know which ticket you are playing. She will only check your ticket right before drawing a ball. This way, you can be assured that this is a fair lottery.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, I will come by your desk and you will pick an envelope with a ticket. Please check which ticket you have and stick your Participant ID Number on the envelope. You will take the envelope with you to the room next door when the assistant calls you.

Then, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions.]

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You have a ticket to play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, one of the assistants will call you individually to play the lottery in a room next door.

If you are playing a RED₁ ticket, the assistant will draw a ball from Bag 1, and you will win the prize if she draws a red ball.

If you are playing a RED₂ ticket, the assistant will draw a ball from Bag 2, and you will win the prize if she draws a red ball.

In each bag, there are 10 red and blue balls in total. The compositions of the bags are either

- (i) Bag 1: 80% RED balls
Bag 2: 20% RED balls

OR

- (ii) Bag 1: 20% RED balls
Bag 2: 80% RED balls

The assistant will set up the bags AS SHE PLEASES, without knowing which ticket you are playing.

The assistant will not reveal the compositions of the bags to anyone at any time.

Now you can go ahead and complete the second part of the personality questionnaire.

[Next, participants filled out the form titled "Questionnaire: How I am in General (Part II)," which was identical for all conditions.]

Participant ID Number: _____

Decision Form

Thanks for completing the previous questionnaires.

Soon you will play the lottery. Recall that there is a \$10 prize.

You have the chance to switch to the alternative ticket (the one that corresponds to the other bag), if you so desire.

If you switch, you will receive \$0.10 in addition to what you get from the lottery.

Please indicate your decision below:

_____ I want to **KEEP** the original ticket

_____ I want to **SWITCH** to the alternative ticket

Your decision will be kept strictly confidential.

Should you have any questions before making the decision, please raise your hand and I will come by your desk.

Once you are done, please fold the Decision Form and raise your hand. I will let the assistants know that you are ready to play the lottery.

BCR CONDITION

Procedures

- Participants are recruited using the Anderson Lab's online recruitment system.
- Participants enter the lab, are seated at a carrel and are asked to sign the Consent Form to participate in the study.
- Once they have agreed to participate in the study, they are assigned a Participant ID Number.
- Participants are given a handout with General Instructions and Specific Instructions #1. The experimenter reads these instructions aloud.
- Once the experimenter finishes reading Specific Instructions #1, the assistant leaves the main room and goes to a room next door. He stays there until the end of the session.
- The experimenter comes by each participant's desk. Each participant picks an envelope containing a ticket. Half of the participants receive a RED₁ ticket and the other half receives a RED₂ ticket.
- Participants fill out a questionnaire about personal information and the first portion of a personality questionnaire.
- Participants receive a handout with Specific Instructions #2, which remind them of the lottery that will take place at the end of the session. The experimenter reads these instructions aloud.
- Participants fill out the second portion of the personality questionnaire.
- Participants receive a Decision Form. At this time, they are informed that they have the chance to switch tickets and receive a \$0.10 bonus, if they so desire. They make a keep-or-switch decision.
- Participants receive another Decision Form. They make a series of keep-or-switch choices for varying values of the switching bonus. One of all the choices they make (including the one with a \$0.10 bonus) will be randomly selected as the choice-that-counts.
- Participants line up in the hallway. The assistant calls them individually to play the lottery in the room next door. The assistant randomly selects the keep-or-switch choice that counts and then resolves the lottery.

[The general section of the instructions (“General Instructions”) was identical for all conditions.]

Specific Instructions #1

On the front desk you see a pair of identical bags. The bags are labeled Bag 1 and Bag 2. As of now, they are empty. The assistant will keep them in a separate room next door throughout the session.

At the end of the session, the assistant will fill each of the two bags with 10 red and blue balls in total. After setting up the bags, he will call one participant at a time, and he will randomly draw a ball from ONE of the bags in front of the participant. Then he will put the ball back into the bag.

In a minute, you will receive a ticket to play only ONE of two possible INDIVIDUAL lotteries. One lottery involves Bag 1 alone, while the other one involves Bag 2 alone. So you will get ONE of two types of tickets:

- (a) The RED_1 ticket involves Bag 1 only. It pays \$10 if the assistant randomly draws a RED ball from this bag, and nothing if he draws a blue ball.
- (b) The RED_2 ticket involves Bag 2 only. It pays \$10 if the assistant randomly draws a RED ball from this bag, and nothing if he draws a blue ball.

Please note that the lottery is real. You will actually receive \$10 if you happen to win the prize.

To determine which ticket you get, I will come by your desk and you will pick an envelope from this box I am showing to you. The envelope contains a ticket. Half of you will receive a RED_1 ticket and the other half will get a RED_2 ticket. This way, tickets will be randomly assigned.

Now let me tell you how we will determine the compositions of Bag 1 and Bag 2. On the front desk you can see an empty plastic cup. You can also see eleven pieces of paper. Each piece of paper features a different number between 0 (inclusive) and 10 (inclusive). Now I will fold them and put them into the plastic cup. The assistant will randomly draw a number and write it down without showing it to anyone else; then he will fold the piece of paper again and put it back into the cup. Next he will repeat this procedure.

The first number drawn by the assistant will determine the number of RED balls in Bag 1. The second number will determine the number of RED balls in Bag 2. (Recall that each bag will contain 10 red and blue balls in total.)

The assistant is the ONLY person who will know the compositions of Bag 1 and Bag 2. He will not reveal this information to anyone at any time, not even after resolving the lottery.

At the end of the session, you will line up in the hallway. The assistant will call you INDIVIDUALLY and will check which lottery you are playing. Then, he will randomly draw a ball from the corresponding bag in front of you, and he will record the outcome of the lottery.

Should you have any questions now, please raise your hand, and I will come by your desk. Otherwise, we will proceed with the study.

Next, I will come by your desk and you will pick an envelope with a ticket. Please check which ticket you have and stick your Participant ID Number on the envelope. You will take the envelope with you to the room next door when the assistant calls you.

Then, you will provide some personal information and fill out the first part of a personality questionnaire.

[Next, participants filled out the forms titled “Personal Information” and “Questionnaire: How I am in General (Part I),” which were identical for all conditions.]

Specific Instructions #2

Thank you for completing the previous section. The next section will contain the second part of the personality questionnaire.

Here is a reminder of what will happen at the end of the session:

You have a ticket to play an INDIVIDUAL lottery that offers a \$10 prize. After you are done with all the questionnaires, the assistant will call you individually to play the lottery in a room next door.

If you are playing a RED₁ ticket, the assistant will draw a ball from Bag 1, and you will win the prize if he draws a RED ball.

If you are playing a RED₂ ticket, the assistant will draw a ball from Bag 2, and you will win the prize if he draws a RED ball.

The compositions of the bags were randomly determined. The assistant drew two numbers between 0 and 10 independently. The first number determined the number of RED balls (out of 10) in Bag 1. The second number determined the number of RED balls (also out of 10) in Bag 2.

The assistant is the ONLY person who knows the compositions of Bag 1 and Bag 2 and he will not reveal this information to anyone at any time.

Now you can go ahead and complete the second part of the personality questionnaire.

[Next, participants filled out the form titled “Questionnaire: How I am in General (Part II),” which was identical for all conditions. Then, participants filled out the Decision Form, which was identical to the one from the IND condition.]

Decision Form (Part II)

Thanks for completing the first part of the Decision Form. Now you will complete the second part. This one is the last form that you will fill out before playing the lottery. Please look carefully at the following table:

Which option do you prefer?

OPTION 1		OPTION 2	
			SWITCH to the alternative ticket when the bonus is
	1	2	
(1)			\$0.20
(2)			\$0.30
(3)	KEEP the original ticket		\$0.40
(4)			\$0.50
(5)			\$0.60
(6)			\$0.70
(7)			\$0.80
(8)			\$0.90
(9)			\$1

For each of the nine rows, all you have to do is choose between OPTION 1 and OPTION 2. You have just made a similar decision when the bonus is \$0.10. For each row, indicate your choice by checking the corresponding box.

Your earnings will be determined as follows. Before you play the lottery in the room next door, I will roll a ten-sided die in front of you. The die has numbers 0 through 9 on it. The number that comes out will determine which of the rows will be the row-that-counts. If number 0 comes out, then we will implement the choice you made in the first part of the Decision Form when the bonus was \$0.10. If any other number comes out, we will carry out the choice that corresponds to that row in the table. For example, suppose that 5 comes out. Then we will implement the choice you made in row 5. This means that if your choice in that row was to switch tickets, you will play the lottery with the alternative ticket and you will receive \$0.60 in addition to what you get from the lottery.

Now you can go ahead and make the choices. Please raise your hand once you are done.