Is the Endowment Effect an Expectations Effect?

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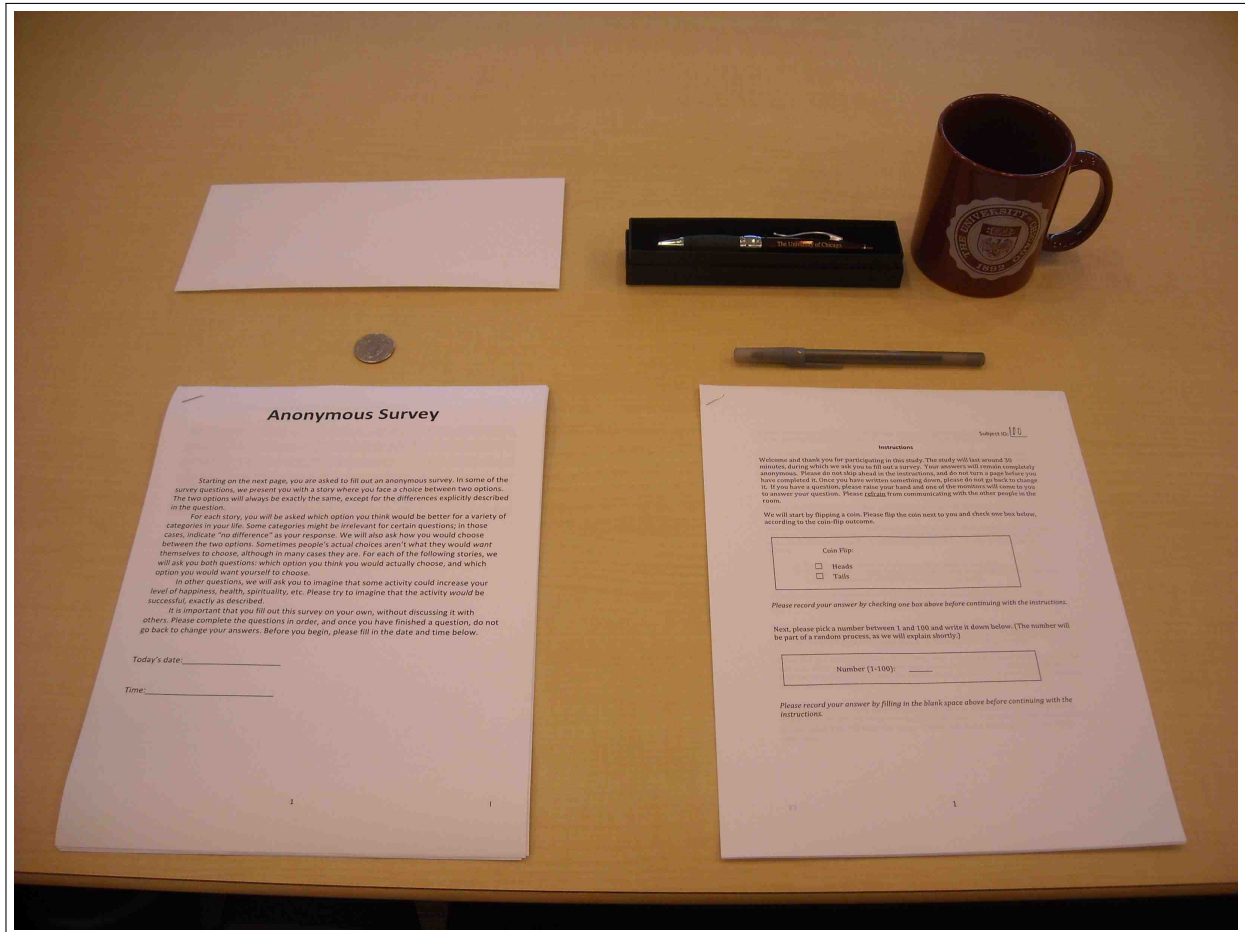
University of Chicago

Department of Economics

WEB APPENDIX

August 2, 2013

Appendix A: Experiment 1 Instruments Example

[Instructions start on the next page, followed by a recruiting flyer.]

Instructions

Welcome and thank you for participating in this study. The study will last around 30 minutes, during which we ask you to fill out a survey. Your answers will remain completely anonymous. Please do not skip ahead in the instructions, and do not turn a page before you have completed it. Once you have written something down, please do not go back to change it. If you have a question, please raise your hand and one of the monitors will come to you to answer your question. Please <u>refrain</u> from communicating with the other people in the room.

We will start by flipping a coin. Please flip the coin next to you and check one box below, according to the coin-flip outcome.

Coin Flip:

☐ Heads
☐ Tails

Please record your answer by checking one box above before continuing with the instructions.

Next, please pick a number between 1 and 100 and write it down below. (The number will be part of a random process, as we will explain shortly.)

Number (1-100): _____

Please record your answer by filling in the blank space above before continuing with the instructions.

In front of you are two items. You will get one of them as a gift to take home. Whether or not you can choose your gift is determined at random, as explained below in detail.

In brief, there is a 1% probability that you <u>will be able</u> to choose which item you take home. However, there is a 99% probability that you <u>will NOT be able</u> to choose, and that your gift will automatically be the pen if you flipped "heads" and automatically be the mug if you flipped "tails."

Feel free to inspect the items but please return them both to their places before we continue.

Please inspect the items but set them back before continuing with the instructions.

You will begin a survey shortly, but first you will learn how it will be decided which gift you take home. When you are finished with the survey, before you go home with your gift, the outcome of a random process will determine if you can choose it. This process will be as follows:

1) We will ask you which of the two items you want as your gift.
2) We will ask you to open the sealed envelope next to you. The envelope contains a randomly-selected number between 1 and 100 inside.

If the number you wrote down in the previous page <u>is the same</u> as the number in the envelope, your gift will be the item you have just chosen, regardless of your previous coin-flip.

If the number you wrote down in the previous page <u>is NOT the same</u> as the number in the envelope, your gift will be determined from the coin flip: your gift will automatically be the pen if you flipped "heads" and automatically be the mug if you flipped "tails."

Notice that you have a 1% chance (or 1/100) to be able to choose your gift at the end of the survey. In other words, there is a very high probability that you will take home the gift determined by the coin-flip, regardless of which gift you choose. If you have any questions, please raise your hand.

You will now answer two comprehension questions to make sure that you understand exactly how the gift you receive at the end of the study will be determined. After answering the questions you will begin the survey. Please turn to the next page to answer these questions.

Please answer the following two questions.

1. With 1% probability, the number I wrote down will turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ My gift will be the one I choose, regardless of the coin-flip.

☐ My gift will be _____, as determined by the coin-flip, regardless of my choice.

2. With 99% probability, the number I wrote down will not turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ My gift will be the one I choose, regardless of the coin-flip.

☐ My gift will be _____, as determined by the coin-flip, regardless of my choice.

Please raise your hand when you finish.

You are now going to take a survey. The questions on the survey are hypothetical and you are asked to imagine yourself in different situations. Please try to answer the questions as accurately as you can.

Before continuing, please complete the Anonymous Survey found on your desk.

After completing the Anonymous Survey, please proceed to the next page of instructions.

You will shortly find out the outcome of the random process that determines whether or not you choose your gift.

Please indicate which gift, the pen or the mug, you would like to receive regardless of the item that would be assigned to you by the coin flip. In other words, choose the item you want, which may or may not be the same as the item you would get based on the coin flip in the beginning.

My choice: _____

Please wait until everyone has filled in the blank space with a choice (pen or mug) and the monitor has instructed you to continue.

Before opening your envelope, please answer the next two questions. The questions are hypothetical so you are not required to purchase anything and your answers will not affect you in any way. But please answer truthfully, as if you were going to fulfill the purchase decisions. When answering, please ignore the fact that you will soon own one of the two items in front of you.

1.   **Pen:** What would be the maximum price that you would be willing to pay to purchase a pen like the one in front of you?

> I would be willing to pay up to $_____ to purchase a similar pen.

2.   **Mug:** What would be the maximum price that you would be willing to pay to purchase a mug like the one in front of you?

> I would be willing to pay up to $_____ to purchase a similar mug.

After you have answered the two questions above, please open your envelope.

If the number you wrote down is the same as the number in the envelope, your gift will be the item you have just chosen, regardless of the coin flip in the beginning.

If the number you wrote down is NOT the same as the number in the envelope, your gift will be the one determined by the coin flip in the beginning.

Are there any questions?

The monitors will now come by and distribute your gifts. You are free to leave once you have received your gift.

Thank you for participating. If you have any comments or thoughts you would like to share with us, please write them on the lines below. We are also curious to know: how did you decide which gift to choose?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Students Needed for Research Study!

The Becker Center needs students for a research study lasting less than 40 minutes. Participants will receive a $10 show-up fee and are needed immediately.

Contact: ucexperiments@gmail.com

ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com
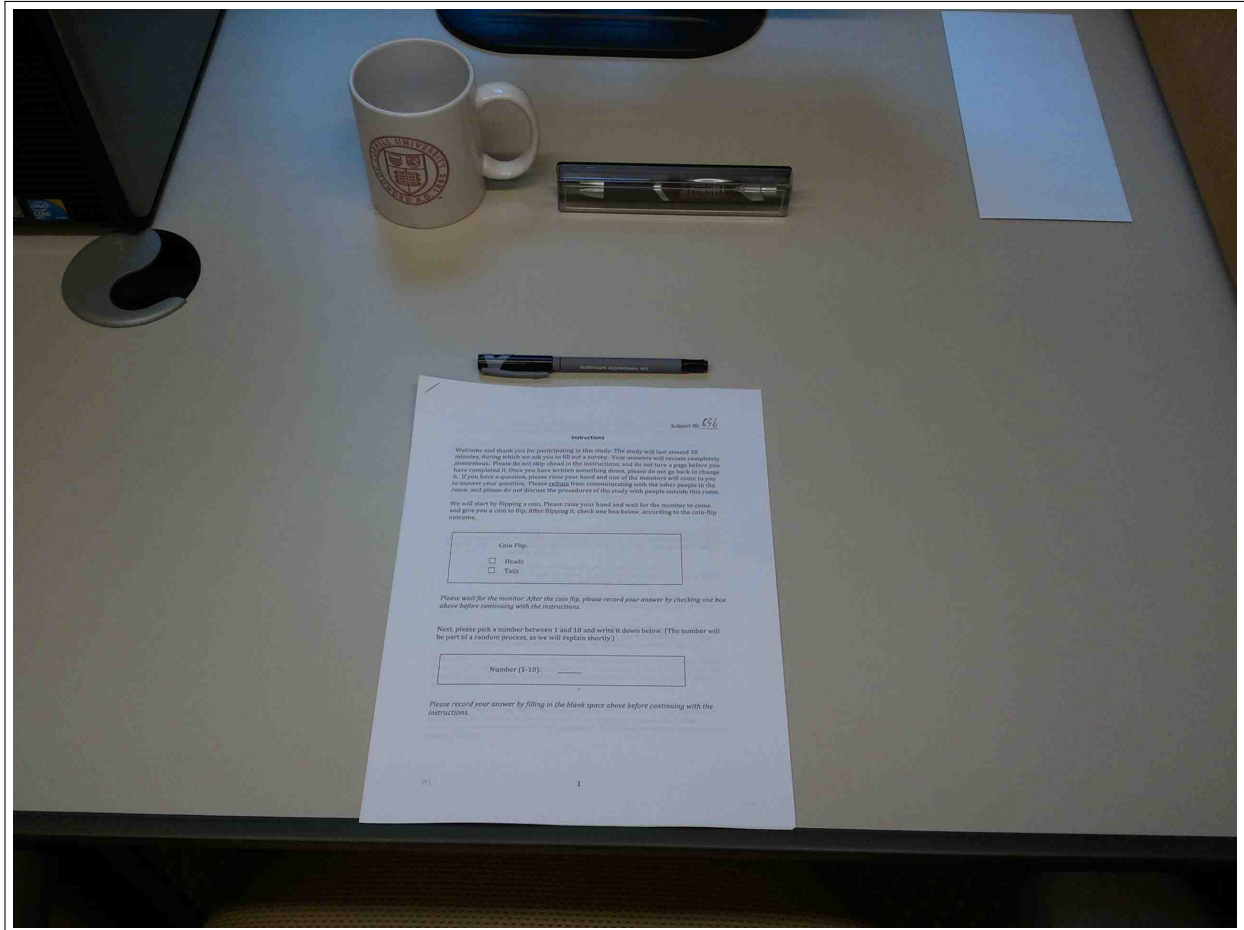ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com
ucexperiments@gmail.com

Appendix B: Experiment 2 Instruments Example

[Instructions start on the next page, followed by a recruiting screenshot.]

Instructions

Welcome and thank you for participating in this study. The study will last around 30 minutes, during which we ask you to fill out a survey. Your answers will remain completely anonymous. Please do not skip ahead in the instructions, and do not turn a page before you have completed it. Once you have written something down, please do not go back to change it. If you have a question, please raise your hand and one of the monitors will come to you to answer your question. Please <u>refrain</u> from communicating with the other people in the room, and please do not discuss the procedures of the study with people outside this room.

We will start by flipping a coin. Please raise your hand and wait for the monitor to come and give you a coin to flip. After flipping it, check one box below, according to the coin-flip outcome.

<div>

Coin Flip:

☐   Heads
☐   Tails

</div>

Please wait for the monitor. After the coin flip, please record your answer by checking one box above before continuing with the instructions.

Next, please pick a number between 1 and 10 and write it down below. (The number will be part of a random process, as we will explain shortly.)

<div>

Number (1-10):   _____

</div>

Please record your answer by filling in the blank space above before continuing with the instructions.

In front of you are two items. You will get one of them Your coin-flip has determined which one of them belongs to you as a gift to take home. Whether or not you can choose your gift to exchange your item for the other item is determined at random, as explained below in detail.

In brief, there is a 10% probability that you will be able to choose which item you take home. However, there is a 90% probability that you will NOT be able to choose, and that your take-home gift will automatically be the pen if you flipped "heads" and automatically be the mug if you flipped "tails." In brief, you own the pen if you flipped "heads" and the mug if you flipped "tails." The item you own is yours to keep. You own it for real, not just for the purpose of the study. There is a 10% probability that you will be able to exchange it for the other item if you want to. However, there is a 90% probability that you will NOT be able to exchange it.

Remember that everything written in these instructions is real: you will actually leave the room at the end of the session with one of the two items. Feel free to inspect the items but please return them both to their places before we continue.

Please inspect the items but set them back before continuing with the instructions.

You will begin a survey shortly, but first you will learn how it will be decided which item you take home whether or not you can exchange your item. When you are finished with the survey, before you go home with one of the items, the outcome of a random process will determine if you can choose your take-home item exchange the item you own for the other item. This process will be as follows:

1) We will ask you to choose which of the two items you want. whether you want to keep the item you own, or to exchange it for the other item.
2) We will ask you to open the sealed envelope next to you. The envelope contains a randomly-selected number between 1 and 10 inside.

If the number you wrote down in the previous page is the same as the number in the envelope, you will take home the item you have just chosen, regardless of your previous coin-flip. determined by your choice in (1). That is, if you have just chosen to keep the item you own, you will take it home; and if you have just chosen to exchange it, you will take home the other item.

If the number you wrote down in the previous page is NOT the same as the number in the envelope, you will take home the item determined by the coin flip: it will automatically be the pen if you flipped "heads" and automatically be the mug if you flipped "tails." you own. Remember that this was determined by the coin-flip: you own the pen if you flipped "heads" and the mug if you flipped "tails."

Notice that you have a 10% chance (or 1/10) to be able to choose exchange your take-

home item at the end of the survey. In other words, there is a pretty high probability that you will take home the item ==determined by the coin-flip, regardless of which item you choose.== you own as determined by the coin-flip, regardless of whether you choose to keep or exchange it. If you have any questions, please raise your hand.

You will now answer two comprehension questions to make sure that you understand exactly how the item you ==receive== take home at the end of the study will be determined. After answering the questions you will begin the survey. Please turn to the next page to answer these questions.

Please answer the following two questions.

1. With 10% probability, the number I wrote down will turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ I will take home the item I choose, regardless of the coin-flip.

☐ I will take home the _____, as determined by the coin-flip, regardless of my choice.

2. With 90% probability, the number I wrote down will not turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ I will take home the item I choose, regardless of the coin-flip.

☐ I will take home the _____, as determined by the coin-flip, regardless of my choice.

Please raise your hand when you finish.

Please do not proceed until the monitor has verified your answers to the questions above.

Once the monitor asks you to proceed, please proceed to the next page, where we ask you questions about characteristics that may or may not apply to you. When you finish these questions, you will proceed to choose your take-home gift. whether you want to keep the item you own, or exchange it for the other item.

Z1   4

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who <u>likes to spend time with others</u>? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

Disagree strongly 1	Disagree a little 2	Neither agree nor disagree 3	Agree a little 4	Agree strongly 5

<u>I see Myself as Someone Who</u>…

__1. Is talkative

__2. Tends to find fault with others

__3. Does a thorough job

__4. Is depressed, blue

__5. Is original, comes up with new ideas

__6. Is reserved

__7. Is helpful and unselfish with others

__8. Can be somewhat careless

__9. Is relaxed, handles stress well

__10. Is curious about many different things

__11. Is full of energy

__12. Starts quarrels with others

__13. Is a reliable worker

__14. Can be tense

__15. Is ingenious, a deep thinker

__16. Generates a lot of enthusiasm

__17. Has a forgiving nature

__18. Tends to be disorganized

__19. Worries a lot

__20. Has an active imagination

__21. Tends to be quiet

__22. Is generally trusting

__23. Tends to be lazy

__24. Is emotionally stable, not easily upset

__25. Is inventive

__26. Has an assertive personality

__27. Can be cold and aloof

__28. Perseveres until the task is finished

__29. Can be moody

__30. Values artistic, aesthetic experiences

__31. Is sometimes shy, inhibited

__32. Is considerate and kind to almost everyone

__33. Does things efficiently

__34. Remains calm in tense situations

__35. Prefers work that is routine

__36. Is outgoing, sociable

__37. Is sometimes rude to others

__38. Makes plans and follows through with them

__39. Gets nervous easily

__40. Likes to reflect, play with ideas

__41. Has few artistic interests

__42. Likes to cooperate with others

__43. Is easily distracted

__44. Is sophisticated in art, music, or literature

<u>Please check: Did you write a number in front of each statement?</u>

Z1   5

You will shortly find out the outcome of the random process that determines whether or not you ==choose your take-home gift.== <mark>can exchange the item you own.</mark>

Please indicate ==which gift, the pen or the mug, you would like to receive.== <mark>whether you would like to keep the item you own or trade it for the other item, by writing "keep" or "trade" in the box below.</mark> <u>Remember that at the end of the session you will actually take home with you one of the items; fill in the box below according to the item you prefer</u>.

+---+
| |
| My choice: _____ |
| |
+---+

Please wait until everyone has filled in the blank space with a choice ==(pen or mug)== <mark>(keep or trade)</mark> and the monitor has instructed you to continue.

Before opening your envelope, please carefully read and think about each of the following statements. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. **Notice that the scale now goes from 1 to 7.**

Disagree strongly	Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Agree	Agree strongly
1	2	3	4	5	6	7

___ a. I like the pen better than the mug.

___ b. During the session, I have spent some time thinking about how I would use the pen.

___ c. During the session, I have spent some time thinking about how I would use the mug.

___ d. During the session, I have spent more time thinking about the pen than about the mug.

___ e. During the session, I expected the pen to be the item I take home.

___ f. During the session, I expected the mug to be the item I take home.

___ g. During the session, I expected the pen more than the mug to be the item I take home.

___ h. During the session, I felt that I owned the pen. I felt that it was already mine.

___ i. During the session, I felt that I owned the mug. I felt that it was already mine.

___ j. During the session, I felt that I owned the pen more than I felt that I owned the mug.

After you have answered the questions above, please open your envelope.

If the number you wrote down is the same as the number in the envelope, you will take home the item you chose. own if you chose "keep" and the other item if you chose "trade." If the number you wrote down is NOT the same as the number in the envelope, you will take home the item you own (as determined by the coin flip in the beginning).

The monitors will now come by and distribute your take-home items. You are free to leave once you have received your item.
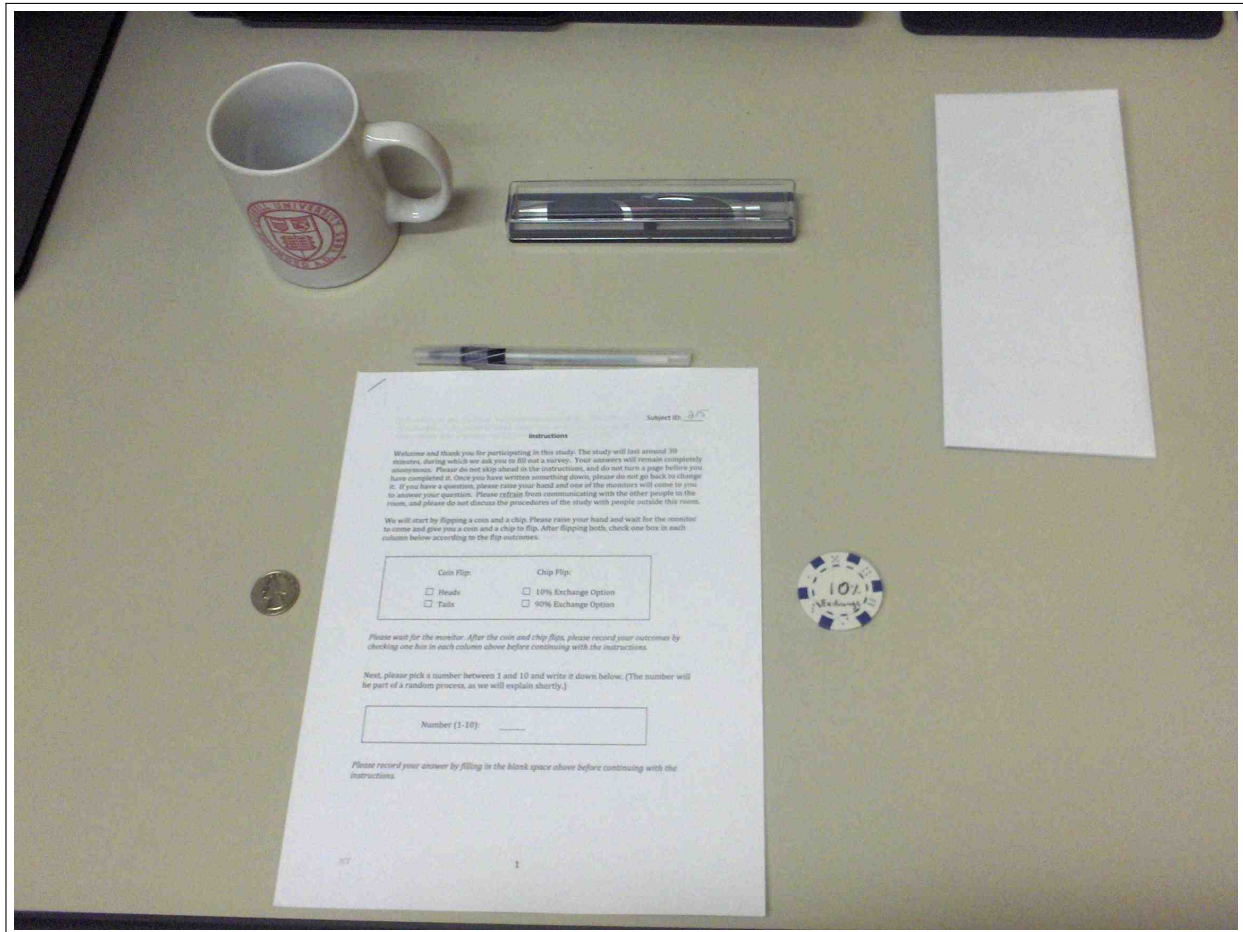
Thank you for participating. If you have any comments or thoughts you would like to share with us, please write them on the lines below. We are especially curious to know: how did you decide which item to choose?

_____
_____
_____
_____
_____
_____
_____

Study Information	
Study Name	Economic Decision Making II
Abstract	Take an in-person study on economic behavior and earn $10 OR 1 credit.
Description	You will participate in an anonymous survey, and we will ask you to make simple economic decisions.
Duration	40 minutes
Pay	10 Dollars
Researchers	Sean Garborg Email: **sean.garborg@gmail.com** Ori Heffetz Email: **oh33@cornell.edu**
Principal Investigator	**Principal Investigator**
Deadlines	Sign-Up: 1 hour(s) before the appointment Cancellation: 24 hour(s) before the appointment

Appendix C: Experiment 3 Instruments Example

[Instructions start on the next page.]

Instructions

Welcome and thank you for participating in this study. The study will last around 30 minutes, during which we ask you to fill out a survey. Your answers will remain completely anonymous. Please do not skip ahead in the instructions, and do not turn a page before you have completed it. Once you have written something down, please do not go back to change it. If you have a question, please raise your hand and one of the monitors will come to you to answer your question. Please <u>refrain</u> from communicating with the other people in the room, and please do not discuss the procedures of the study with people outside this room.

We will start by flipping a coin and a chip. Please raise your hand and wait for the monitor to come and give you a coin and a chip to flip. After flipping both, check one box in each column below according to the flip outcomes.

<div>

Coin Flip: Chip Flip:

☐ Heads   ☐ 10% Exchange Option
☐ Tails   ☐ 90% Exchange Option

</div>

Please wait for the monitor. After the coin and chip flips, please record your outcomes by checking one box in each column above before continuing with the instructions.

Next, please pick a number between 1 and 10 and write it down below. (The number will be part of a random process, as we will explain shortly.)

<div>

Number (1-10):   _____

</div>

Please record your answer by filling in the blank space above before continuing with the instructions.

In front of you are two items. Your coin-flip has determined which one of them belongs to you as a gift to take home. Whether or not you can choose to exchange your item for the other item is determined at random, as explained below in detail.

In brief, you own the pen if you flipped "heads" and the mug if you flipped "tails." The item you own is yours to keep. You own it for real, not just for the purpose of the study. You may have the option to exchange your item for the other item, as follows:
- If you flipped "10% Exchange Option" then there is a 10% probability that you will be able to exchange your item for the other item if you want to.
- If you flipped "90% Exchange Option" then there is a 90% probability that you will be able to exchange your item if you want to.

Remember that everything written in these instructions is real: you will actually leave the room at the end of the session with one of the two items. Feel free to inspect the items but please return them both to their places before we continue.

Please inspect the items but set them back before continuing with the instructions.

You will begin a survey shortly, but first you will learn how it will be decided whether or not you can exchange your item. When you are finished with the survey, before you go home with one of the items, the outcome of a random process will determine if you can exchange the item you own for the other item. This process will be as follows:

1) We will ask you to choose whether you want to keep the item you own, or to exchange it for the other item.
2) We will ask you to open the sealed envelope next to you. The envelope contains a randomly-selected number between 1 and 10 inside.

What will happen next depends on what came up in your chip-flip:

If you flipped "10% Exchange Option" read this column:	*If you flipped "90% Exchange Option" read this column:*
If the number you wrote down on the first page is the same as the number in the envelope, you will take home the item determined by your choice in (1). That is, if you have just chosen to keep the item you own, you will take it home; and if you have just chosen to exchange it, you will take home the other item.	If the number you wrote down on the first page is NOT the same as the number in the envelope, you will take home the item determined by your choice in (1). That is, if you have just chosen to keep the item you own, you will take it home; and if you have just chosen to exchange it, you will take home the other item.
If the number you wrote down on the first page is NOT the same as the number in the envelope, you will take home the item you own. Remember that this was determined by the coin-flip: you own the pen if you flipped "heads" and the mug if you flipped "tails."	If the number you wrote down on the first page is the same as the number in the envelope, you will take home the item you own. Remember that this was determined by the coin-flip: you own the pen if you flipped "heads" and the mug if you flipped "tails."
Notice that you have a 10% chance (or 1/10) to be able to exchange your item at the end of the survey. In other words, there is a pretty high probability that you will take home the item you own as determined by the coin-flip, regardless of whether you choose to keep or exchange it. If you have any questions, please raise your hand.	Notice that you have a 90% chance (or 9/10) to be able to exchange your item at the end of the survey. In other words, there is a pretty high probability that you will take home the item you choose, regardless of whether or not you own it by the coin-flip. If you have any questions, please raise your hand.

You will now answer two comprehension questions to make sure that you understand exactly how the item you take home at the end of the study will be determined. After answering the questions you will begin the survey. Please turn to the next page to answer these questions.

Please answer the following two questions.

1. With 10% probability, the number I wrote down will turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ I will take home the item I choose, regardless of the coin-flip.

☐ I will take home the _____, as determined by the coin-flip, regardless of my choice.

2. With 90% probability, the number I wrote down will not turn out the same as the number in the envelope. In that case:

(Please check one box. If you check the bottom box, please also fill out the blank space.)

☐ I will take home the item I choose, regardless of the coin-flip.

☐ I will take home the _____, as determined by the coin-flip, regardless of my choice.

Please raise your hand when you finish.

Please do not proceed until the monitor has verified your answers to the questions above.

Once the monitor asks you to proceed, please proceed to the next page, where we ask you questions about characteristics that may or may not apply to you. When you finish these questions, you will proceed to choose whether you want to keep the item you own, or exchange it for the other item.

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

Disagree strongly 1	Disagree a little 2	Neither agree nor disagree 3	Agree a little 4	Agree strongly 5

I see Myself as Someone Who…

___1. Is talkative

___2. Tends to find fault with others

___3. Does a thorough job

___4. Is depressed, blue

___5. Is original, comes up with new ideas

___6. Is reserved

___7. Is helpful and unselfish with others

___8. Can be somewhat careless

___9. Is relaxed, handles stress well

___10. Is curious about many different things

___11. Is full of energy

___12. Starts quarrels with others

___13. Is a reliable worker

___14. Can be tense

___15. Is ingenious, a deep thinker

___16. Generates a lot of enthusiasm

___17. Has a forgiving nature

___18. Tends to be disorganized

___19. Worries a lot

___20. Has an active imagination

___21. Tends to be quiet

___22. Is generally trusting

___23. Tends to be lazy

___24. Is emotionally stable, not easily upset

___25. Is inventive

___26. Has an assertive personality

___27. Can be cold and aloof

___28. Perseveres until the task is finished

___29. Can be moody

___30. Values artistic, aesthetic experiences

___31. Is sometimes shy, inhibited

___32. Is considerate and kind to almost everyone

___33. Does things efficiently

___34. Remains calm in tense situations

___35. Prefers work that is routine

___36. Is outgoing, sociable

___37. Is sometimes rude to others

___38. Makes plans and follows through with them

___39. Gets nervous easily

___40. Likes to reflect, play with ideas

___41. Has few artistic interests

___42. Likes to cooperate with others

___43. Is easily distracted

___44. Is sophisticated in art, music, or literature

Please check: Did you write a number in front of each statement?

You will shortly find out the outcome of the random process that determines whether or not you can exchange the item you own.

Please indicate whether you would like to keep the item you own or trade it for the other item, by writing "keep" or "trade" in the box below. <u>Remember that at the end of the session you will actually take home with you one of the items; fill in the box below according to the item you prefer</u>.

My choice: _____

Please wait until everyone has filled in the blank space with a choice (keep or trade) and the monitor has instructed you to continue.

Before opening your envelope, please carefully read and think about each of the following statements. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. **Notice that the scale now goes from 1 to 7.**

Disagree strongly	Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Agree	Agree strongly
1	2	3	4	5	6	7

___ a. I like the pen better than the mug.

___ b. During the session, I have spent some time thinking about how I would use the pen.

___ c. During the session, I have spent some time thinking about how I would use the mug.

___ d. During the session, I have spent more time thinking about the pen than about the mug.

___ e. During the session, I expected the pen to be the item I take home.

___ f. During the session, I expected the mug to be the item I take home.

___ g. During the session, I expected the pen more than the mug to be the item I take home.

___ h. During the session, I felt that I owned the pen. I felt that it was already mine.

___ i. During the session, I felt that I owned the mug. I felt that it was already mine.

___ j. During the session, I felt that I owned the pen more than I felt that I owned the mug.

After you have answered the questions above, please open your envelope.

If you flipped "10% Exchange Option" *read this column:*	*If you flipped "90% Exchange Option"* *read this column:*
If the number you wrote down is the same as the number in the envelope, you will take home the item you own if you chose "keep" and the other item if you chose "trade." If the number you wrote down is NOT the same as the number in the envelope, you will take home the item you own (as determined by the coin flip in the beginning).	If the number you wrote down is NOT the same as the number in the envelope, you will take home the item you own if you chose "keep" and the other item if you chose "trade." If the number you wrote down is the same as the number in the envelope, you will take home the item you own (as determined by the coin flip in the beginning).

The monitors will now come by and distribute your take-home items. You are free to leave once you have received your item.

Thank you for participating. If you have any comments or thoughts you would like to share with us, please write them on the back of this page. We are especially curious to know: how did you decide which item to choose?

Appendix D: Experiment 2 Post-Choice Statements

Figures A1 and A2 summarize—for all 233 subjects and for only the 200 correct-on-first-attempt subjects—data on responses to the ten post-choice statements in Experiment 2. Since each of the two figures presents eighty means (and eighty 95% confidence intervals), we discuss here the general picture rather than each individual result and test.

[Figure A1 about here.]

[Figure A2 about here.]

Both figures show that while the top two rows (statements a–d) have little cross-treatment variation in mean responses—differences across treatments are small and are not statistically significant—the bottom two rows (statements e–j) show differences across treatments that are larger and are often statistically significant. This can be seen most vividly by scanning each of the ten mini-graphs individually, and by comparing the effects of assignment—that is, by comparing the mean responses of coin-pen subjects (squares) with those of coin-mug subjects (diamonds)—within each of the four expectations-endowment conditions.

Recall that while statements a–d are designed to reproduce closely EF's four statements regarding liking or spending more time thinking about one of the items versus the other, the new statements e–j are designed to provide further information about subjects' self-reported expectations or feelings of ownership during the experiment. Hence, while the large assignment effects on responses to the latter provide additional evidence that our assignment, expectations, and endowment treatments generally "worked" as intended (namely, they generated expectations and feelings of ownership as intended), the absence of such effects on responses to the former suggests that our treatments did not additionally affect how much subjects liked the items or how much time they spent thinking about them.

In the reminder of this section we discuss in detail the responses to statements a, d, g, and j. These statements correspond to the rightmost mini-graph on each row of Figures A1

and A2, and they explicitly ask responses to *compare* the pen and the mug. The reader can verify that results in the rest of the mini-graphs are consistent with the results we discuss.

We start with statement a in the top row: "I like the pen better than the mug." While EF find that the responses to a similar statement differ across their expectations treatments (by 0.7 on a 1–5 scale, with Wilcoxon-Mann-Whitney p-value of 0.06), we find consistently smaller (and even reversed) differences. For example, among our More Endowment subjects—whose experimental condition may be the most similar to that of EF's subjects— we find small and statistically insignificant effects of assignment in both expectations treatments, and we find small and insignificant differences between these effects across Weak and Strong Expectations (the difference in difference is 0.5 on a 1–7 scale in the "wrong" direction in Figure A1, and of 0.1 in the "right" direction in Figure A2).

Now consider statement d in the second row: "During the session, I have spent more time thinking about the pen than about the mug." Looking again at the effects of assignment among More Endowment subjects, we find that they are again small and insignificant and, importantly, are similar across expectations treatments (comparing Weak with Strong Expectations treatments, the assignment effect goes in the "wrong" direction by 0.2 and 0.1 on a 1–7 scale in Figures A1 and A2). In comparison, EF find that responses to a closely similar statement differ across their expectations treatments (in the "right" direction, by 0.8 on a 1–5 scale, $p=0.06$).

While our treatments do not affect statements regarding liking or spending time thinking about one item versus the other, they have large effects on statements regarding expectations. This is seen in statement g in the third row: "During the session, I expected the pen more than the mug to be the item I take home." The effect of assignment on the responses to this statement doubles from Weak to Strong Expectations among More Endowment subjects (from 1.6 on a 1–7 scale to 3.1 in Figure A1 and from 1.3 to 3.1 in Figure A2) and more than triples among Less Endowment subjects (from 1 to 3.7 and from 1 to 3.5 in the two figures). These findings provide additional evidence suggesting that our expectations treatments gen-

erally affect expectations as intended, in both endowment conditions. Interestingly, they also suggest, first, that relatively low probabilities (of 10%) might sometimes be enough for a statistically significant effect of coin-flip assignment on respondents' self-reported expectations; and second, that our expectations treatments may have affected the self-reported expectations of coin-pen subjects more than those of coin-mug subjects.

Finally, statement j reads: "During the session, I felt that I owned the pen more than I felt that I owned the mug." Responses to this statement suggest that our endowment treatments are indeed successful in generating feelings of ownership. Among More Endowment subjects, the effects of assignment on responses are large and statistically significant in both figures and, depending on expectations treatment, are almost two to four times larger than the corresponding effects among Less Endowment subjects. That these effects are consistently larger under Strong (vs. Weak) Expectations suggests—perhaps not surprisingly—that our expectations treatments, in themselves, affect feelings of ownership. This in turn highlights the issue that one may not be able to keep subjects' feelings of ownership (or of endowment) perfectly constant while manipulating expectations. This is seen most clearly among Less Endowment subjects: while the effects of assignment here are not statistically different from zero under Weak Expectations (at 0.5 in both figures), they remain highly significant under Strong Expectations (at 1.5 and 1.7).[1]

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[1]The possibility that expectations may in themselves affect feelings of ownership is especially interesting in the context of the attempt to interpret the original endowment effect as an expectations effect—an attempt that emphasizes the causal link in the reverse direction, from feelings of ownership to expectations.

Appendix Tables and Figures

Table A1: Choice by Coin-flip in Experiment 1 (Only 94 Subjects Correct on 1st Attempt)

	All Correct	Weak Expectations $(q = 99\%)$	Strong Expectations $(q = 1\%)$	Difference Weak − Strong
(# coin-mug, # coin-pen)	(55, 39)	(32, 16)	(23, 23)	
(# coin-mug who chose mug, # coin-pen who chose mug)	(46, 25)	(28, 11)	(18, 14)	
(% coin-mug who chose mug, % coin-pen who chose mug)	(84%, 64%) diff = 20%	(88%, 69%) diff = 19%	(78%, 61%) diff = 17%	(9%, 8%)
Result	$p = 0.03$	$p = 0.12$	$p = 0.20$	$p = 0.36,$ $p = 0.61$

Notes: Percentages are rounded to the nearest whole number. All p-values are from two-sample two-sided tests of equality of proportions.

Table A2: Choice by Coin-Flip in Experiment 2 (Only 200 Subjects Correct on 1st Attempt)

	All Correct	Weak Expectations $(q = 90\%)$	Strong Expectations $(q = 10\%)$	Difference Weak − Strong
		More Endowment		
(# coin-mug, # coin-pen)	(44, 54)	(21, 25)	(23, 29)	
(# coin-mug who chose mug, # coin-pen who chose mug)	(31, 27)	(15, 12)	(16, 15)	
(% coin-mug who chose mug, % coin-pen who chose mug)	(70%, 50%) diff = 20%	(71%, 48%) diff = 23%	(70%, 52%) diff = 18%	(2%, −4%)
Result	$p = 0.04$	$p = 0.11$	$p = 0.19$	$p = 0.89,$ $p = 0.78$
		Less Endowment		
(# coin-mug, # coin-pen)	(55, 47)	(27, 23)	(28, 24)	
(# coin-mug who chose mug, # coin-pen who chose mug)	(34, 33)	(16, 18)	(18, 15)	
(% coin-mug who chose mug, % coin-pen who chose mug)	(62%, 70%) diff = −8%	(59%, 78%) diff = −19%	(64%, 63%) diff = 2%	(−5%, 16%)
Result	$p = 0.37$	$p = 0.15$	$p = 0.89$	$p = 0.70,$ $p = 0.24$

Notes: Percentages are rounded to the nearest whole number. All p-values are from two-sample two-sided tests of equality of proportions.

Table A3: Choice by Coin-flip in Experiment 3 (Only 107 Subjects Correct on 1st Attempt)

|	All	Weak Expectations ($q = 90\%$)	Strong Expectations ($q = 10\%$)	Difference Weak $-$ Strong
(# coin-mug, # coin-pen)	(52, 55)	(29, 28)	(23, 27)	
(# coin-mug who chose mug, # coin-pen who chose mug)	(30, 35)	(18, 16)	(12, 19)	
(% coin-mug who chose mug, % coin-pen who chose mug)	(58%, 64%) diff $= -6\%$	(62%, 57%) diff $= 5\%$	(52%, 70%) diff $= -18\%$	(10%, -13%)
Result	$p = 0.53$	$p = 0.70$	$p = 0.19$	$p = 0.47$, $p = 0.31$

Notes: Percentages are rounded to the nearest whole number. All p-values are from two-sample two-sided tests of equality of proportions.

Table A4: Choice by Coin-flip in Experiment 3 (Only 213 Subjects Correct by 2nd Attempt)

|	All	Weak Expectations ($q = 90\%$)	Strong Expectations ($q = 10\%$)	Difference Weak $-$ Strong
(# coin-mug, # coin-pen)	(94, 119)	(53, 59)	(41, 60)	
(# coin-mug who chose mug, # coin-pen who chose mug)	(63, 66)	(38, 33)	(25, 33)	
(% coin-mug who chose mug, % coin-pen who chose mug)	(67%, 55%) diff $= 12\%$	(72%, 56%) diff $= 16\%$	(61%, 55%) diff $= 6\%$	(11%, 1%)
Result	$p = 0.09$	$p = 0.08$	$p = 0.55$	$p = 0.27$, $p = 0.92$

Notes: Percentages are rounded to the nearest whole number. All p-values are from two-sample two-sided tests of equality of proportions.

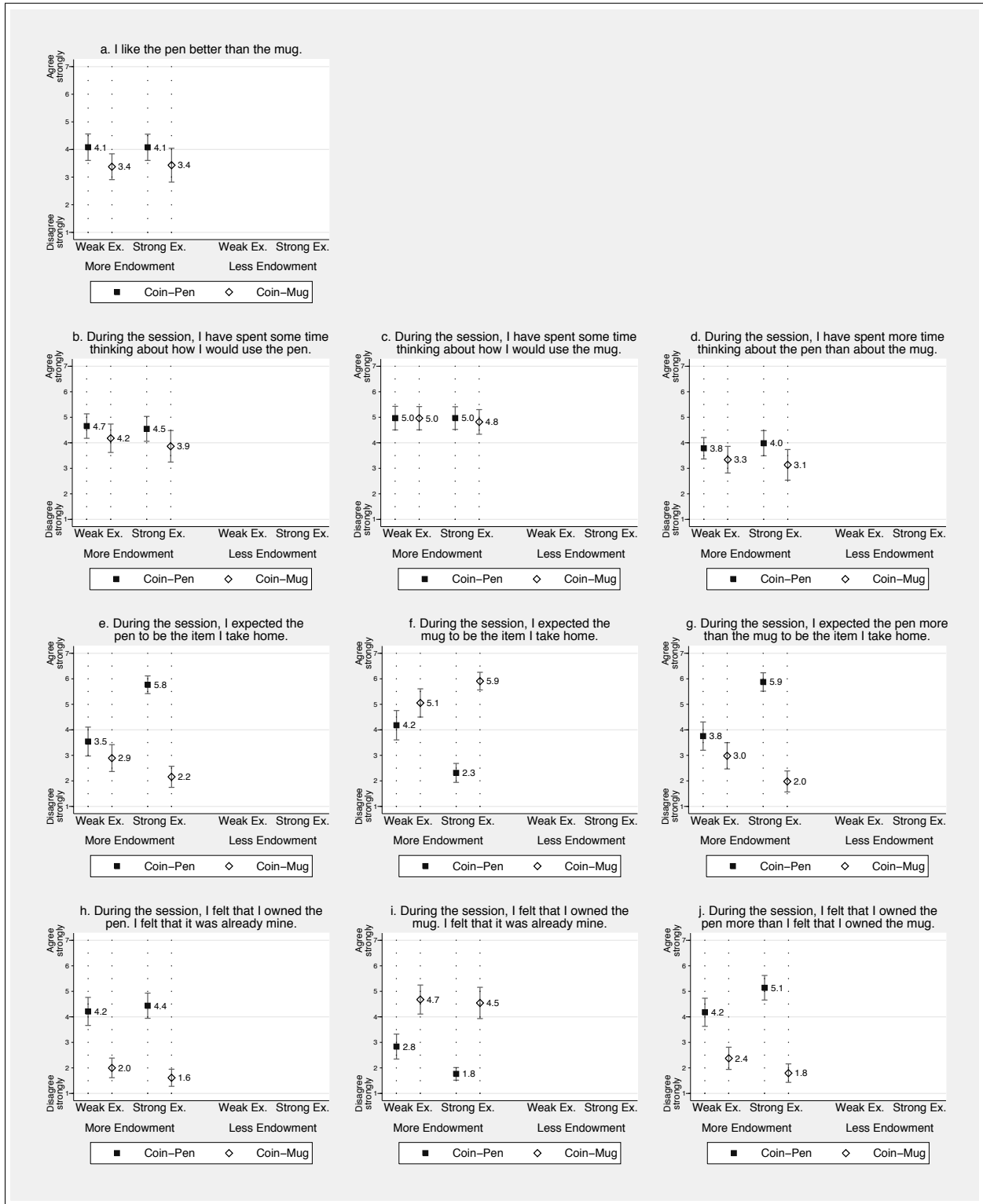Figure A1: Ten Statements in Experiment 2 (All 233 Subjects)
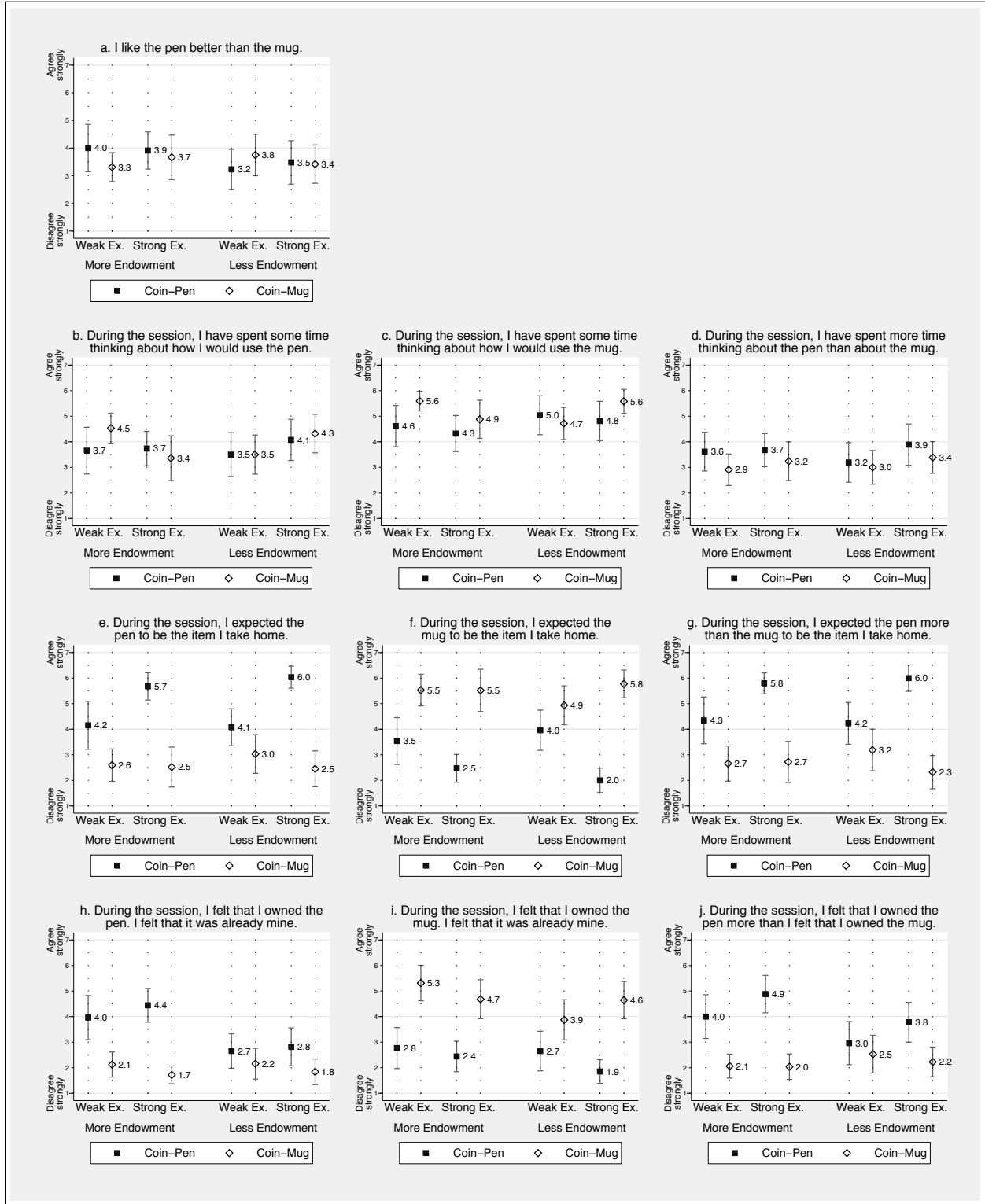
Notes: Squares and diamonds indicate mean response by treatment, with the following response scale: 1=Disagree strongly, 2=Disagree, 3=Disagree a little, 4=Neither agree nor disagree, 5=Agree a little, 6=Agree, 7=Agree strongly. Capped ranges indicate 95% confidence intervals.

Figure A2: Ten Statements in Experiment 2 (Only 200 Subjects Correct on First Attempt)
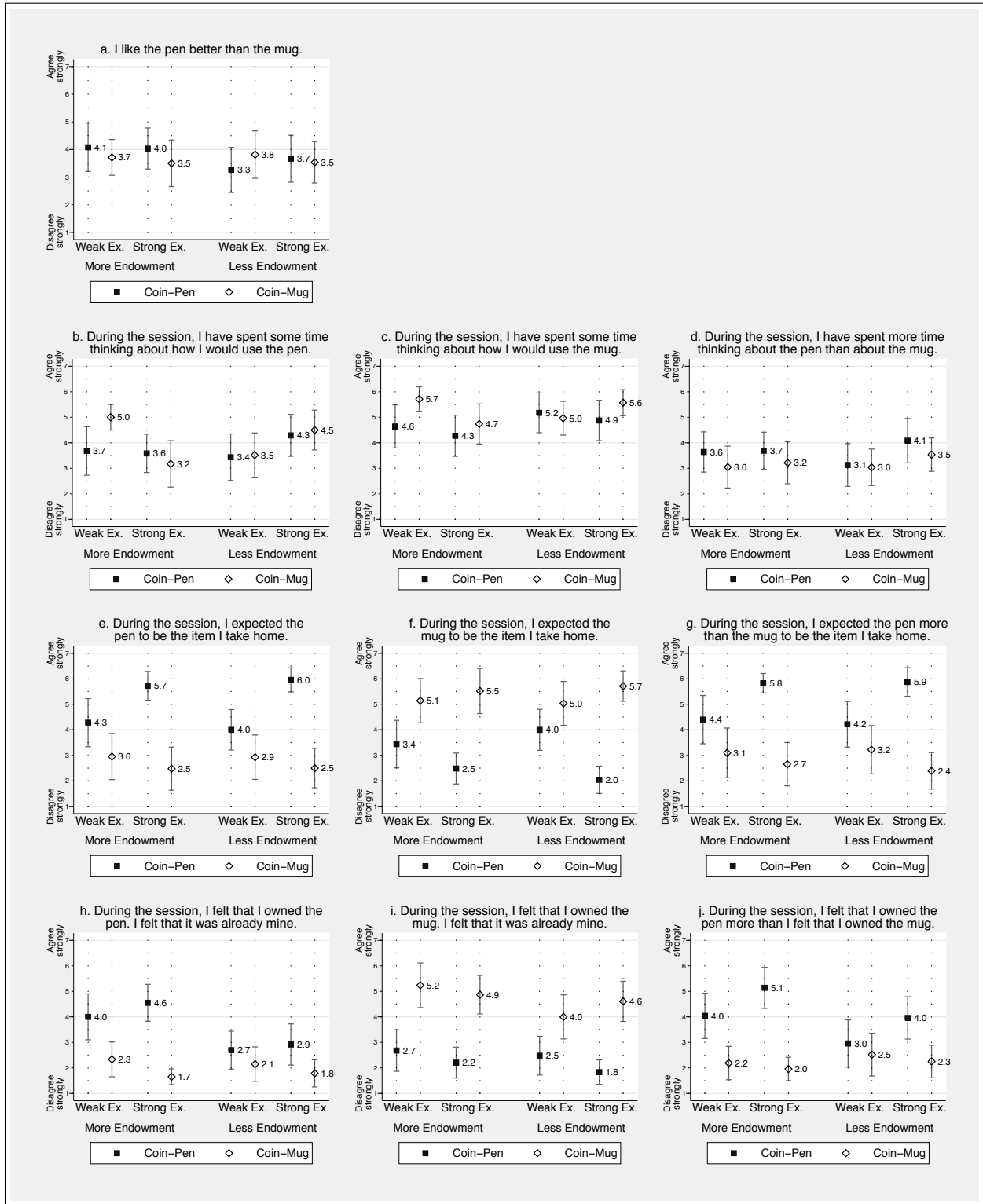
Notes: Squares and diamonds indicate mean response by treatment, with the following response scale: 1=Disagree strongly, 2=Disagree, 3=Disagree a little, 4=Neither agree nor disagree, 5=Agree a little, 6=Agree, 7=Agree strongly. Capped ranges indicate 95% confidence intervals.

Figure A3: Ten Statements in Experiment 3 (All 225 Subjects)

Notes: Squares and diamonds indicate mean response by treatment, with the following response scale: 1=Disagree strongly, 2=Disagree, 3=Disagree a little, 4=Neither agree nor disagree, 5=Agree a little, 6=Agree, 7=Agree strongly. Capped ranges indicate 95% confidence intervals.