**The Pivotal Role of Fairness: Which Consumers Like Annuities?**

**Appendix: Wording of individual difference measures in Studies 1 & 2**

***Demographics:***

* Age: “How old are you?” (select from pulldown)
* Gender: “What is your gender?” (select from pulldown)
* Race: “Please select one or more of the following racial categories to describe yourself” (checklist)
* Retirement savings: “In total how much money do you currently have saved for your retirement?” (checklist)
* Subjective health: “How would you rate your overall health compared to people of your age?” (7 pts, very poor to very good)

***Life expectations:***

The chance that I will live to be xx years old or more is:

(slider for 0-100% for ages 65, 75, 85, and 95)

***Bequest motives and desire for control of savings:***

Please indicate how much you agree or disagree with each of the following statements:

* I am concerned about having enough money to last through my retirement
* It is important to me to leave behind inheritance money to family members
* It is important to me to leave behind inheritance money to organizations that I care about
* I think my family members have sufficient funds to take care of themselves without any inheritance from me
* Having enough money to care for myself in retirement is more important than leaving money to my heirs
* I like being able to control how quickly I spend my retirement money
* I like being able to decide how to invest my retirement savings
* I do not want to be dependent on my heirs to support me in my retirement

***Perceived fairness:***

Please rate how fair your think a life annuity product is.

Completely fair Acceptable Somewhat unfair Very unfair

How much do you agree with each of the following questions?

* I feel like I understand the life annuity market well.
* The system behind life annuities should be changed.
* I would avoid companies that sell life annuities if I could.
* It is clear where the money for this product comes from.
* It is fair that the company is allowed to keep the excess funds.
* I feel that I would have too little control over my retirement money if I bought an annuity.

***Risk aversion:***

Imagine that you are considering two annuity products which both cost $100,000. Both products are offered by the same company and are similar on all attributes, with the only difference being the certainty of the monthly income payments.

Annuity A provides a certain monthly income of $400 for as long as you live. Annuity B, however, is more variable, with payout determined by the performance of some underlying investments. For Annuity B, there is a 50% chance that you will permanently receive income that is twice as high as Annuity A: $800 per month for as long as you live. There is, however, an equally big chance (50%) that you will earn substantially less: $280 per month for as long as you live. Which annuity would you take?

1) Which annuity would you take? Choose one:

Annuity A: certain $400/month

 Annuity B: 50% chance of $800/month and 50% chance of $280/month

*If A on 1:*

2a) Which annuity would you take? Choose one:

Annuity A: certain $400/month

 Annuity B: 50% chance of $800/month and 50% chance of $320/month

*If B on 1:*

2b) Which annuity would you take? Choose one:

 Annuity A: certain $400/month

 Annuity B: 50% chance of $800/month and 50% chance of $200/month

*If A on 2a:*

3a) Which annuity would you take? Choose one:

 Annuity A: certain $400/month

 Annuity B: 50% chance of $800/month and 50% chance of $360/month

*If B on 2b:*

3b) Which annuity would you take? Choose one:

 Annuity A: certain $400/month

 Annuity B: 50% chance of $800/month and 50% chance of $100/month

***Loss aversion:***

Because retirement decisions often involve balancing risk and return, in this section we will ask for your preferences between a series of hypothetical gambles.

Although all choices made in this experiment are hypothetical, we ask that you respond as if you were going to play the gambles for real money to be gained or lost according to their associated probabilities. Please also treat each choice as if that was the only choice you have to make. That is, treat each decision as if it was the only decision you had to make.

 You will be presented with two gamble options in each page. Each of the gambles has 3 distinct outcomes, each with a stated probability of occurrence.

Here's an example of the gamble options.



In the example above, Gamble 1 has 33% chance of losing $100, 34% chance or neither winning or losing, and 33% chance of winning $500. Gamble 2 has 33% chance of losing $200, 34% chance or neither winning or losing, and 33% chance of winning $90.

Which gamble (Gamble 1 or Gamble 2) would you prefer to play?

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You will now make choices for a series of ten pairs of gambles. Because we are interested in your preference for each option (gamble), we ask that you treat each one as if it was the only choice you had to make. Therefore, what you chose earlier should not affect what you choose next.

Although all choices made in this experiment are hypothetical, we ask that you respond as if you were going to play the gambles for real money. There is no right or wrong answer. We are only interested in your preference between each of the two gambles.

Participants then responded to nine questions of the form:

Please evaluate the following 2 gambles and report which gamble you’d like to play:

* Gamble 1: 45% chance of -$w, 10% chance of $0, 45% chance of $x
* Gamble 2: 45% chance of -$y, 10% chance of $0, 45% chance of $z

***Numeracy:***

Your answers are anonymous. It is VERY IMPORTANT that you answer the questions WITHOUT ANY GUIDE, such as a calculator or your friends. You may, however, use scratch paper and pencil to take notes or make a calculation yourself. Please proceed at your own pace.

1. Imagine that we roll a fair, six-sided die 1,000 times. Out of 1,000 rolls, how many times do you think the die would come up even (2,4, or 6)?
2. In the BIG BUCKS LOTTERY, the chances of winning a $10.00 prize are 1%.What is your best guess about how many people would win a $10.00 prize if 1,000 people each buy a single ticket from BIG BUCKS?
3. In the ACME PUBLISHING SWEEPSTAKES, the chance of winning a car is 1 in 1,000.What percent of tickets of ACME PUBLISHING SWEEPSTAKES win a car?
4. If the chance of getting a disease is 10%, how many people out of 1000 would be expected to get the disease?
5. If the chance of getting a disease is 20 out of 100, this would be the same as having a \_\_\_\_\_% chance of getting the disease.
6. A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost? \_\_\_\_ cents
7. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? \_\_\_\_\_ minutes
8. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? \_\_\_\_\_ days