Name: _____

PSY-211: Demonstrating Classical Conditioning

OBJECTIVE: The goal of this mini-experiment is to help you demonstrate to yourself (and your classmates) the type of associative learning we call "classical conditioning", and to provide you with practice identifying components of experimental design (15 pts).

To conduct this experiment, you need at least one assistant. Two is even better!

Decide among you and your assistant(s) who will be the subject (this should be one of your assistants, not you), who will be the reader, and who will record the data. **Make this decision *before* you continue to read these instructions because the subject should *NOT* see these instructions!**

The reader must wash their hands before conducting this experiment. The subject should be willing to get wet and be OK with their eyes closed for a while (e.g., some people get dizzy or anxious when they do this; we do not want to ask such folks to be participants). **Do not do this experiment** if you cannot find a participant who meets these criteria, or you do not feel comfortable conducting this experiment.

If you are unable to conduct the experiment for any reason, instead of answering Questions 1-2, write ~250 words describing how you think the experiment would have gone, and your prediction for the class' results (but make sure to still answer Questions 3-10 on the Data Collection Sheet!).

Gather the following materials:

- A bowl or small pot of room temp water (**do not use hot water!**)
    - *Optional alternative: a clear spray bottle or squirt gun*
- A towel and/or some paper towels for your participant
- A print-out of the stimuli sheet and the data collection sheet (see last page) & a writing implement –or– a computer/tablet/phone to view the stimuli and enter your data.

****IMPORTANT: Try not to let your subject see any of these materials until AFTER the experiment.****

1. Seat your subject facing the reader (making sure they are close enough that the reader will be able to flick or squirt water at the subject's face), and instruct your subject to keep their eyes closed during the entirety of the experiment.

2. The reader should then begin to read the list of words below, *at a speed of about one word every two seconds*. Squirt or flick a few drops of water into the face of the subject only after you read the uppercase "CAN" in boldface, squirting them about ½ second after saying the word. Lower case "can" does **NOT** receive a squirt, but rather, is meant to serve as the CS presented on its own in an extinction or test/probe trial.

3. On the data collection sheet, record each time the subject flinches in any way to the sound of a word, including squeezing their eyes even more closed or tightening their mouth. This is where it can be helpful to have a 3rd person observing the subject and recording these data, so that the reader does not have to try to do this at the same time as they are presenting the stimuli.

4. When you have completed your experiment, provide your subject with towels to dry off and be sure to thank your assistant(s)!

Demonstrating Classical Conditioning
Classical Conditioning Stimuli

When you are ready for the experiment, the reader should begin reading the following words aloud at a speed of about 1 word every 2 seconds. Squirt or flick the subject with water ½ second after reading the word "**CAN**" when presented in boldface and capital letters; do NOT squirt or flick water at the subject when you read the word "can" in lower case and regular font.

cup, can, lime, **CAN**, dish, girl, chalk, can, dish, **CAN**, key, screen, ran, **CAN**, desk, **CAN**, knob, bag, tape, **CAN**, dish, clip, **CAN**, air, ban, cheese, **CAN**, door, can, box, dish, hair, **CAN**, ring, nail, **CAN**, boat, cat, dish, **CAN**, crane, wheel, fire, **CAN**, take, call, brick, pair, **CAN**, spin, chair, **CAN**, camp, **CAN**, dish, **CAN,** bridge, scale, can, fan, board, **CAN**, cool, three, horn, disk, **CAN**, can, cast, test, pen, dime, **CAN**, dish, van, can, card, stand, meat, pad, can, dish, set, can, tree, ice, plum, can, cost, bird, glass, can, light, can, sword, juice, can, dish, rock, smoke, grease, dish, keep, kid, tan, dice, hole, set, dish, eye, friend, wax, bill, bulb, dish, class, mine, mark, work, can, dish, can, bus, dish, phone, can, smart, first, can, crack, feet, can, tub, bowl, can, van, day, can, rake, dish, **CAN,** bluff, risk, **CAN**, salt, dish, **CAN**, ball, stack, **CAN** rain, hat, food, can, van, disk, tree, can

Demonstrating Classical Conditioning
Data Collection Sheet

1. Subject's age_____ (1 pt)

2. For each word that the reader says aloud, place a 1 if the subject flinches or behaviorally reacts to the sound of that word. If there is no reaction, leave the space next to the word blank (5 pts)

Word	Result	Word	Result	Word	Result	Word	Result	Word	Result
cup		**CAN**		horn		can		can	
can		ring		disk		dish		crack	
lime		nail		**CAN**		rock		feet	
CAN		**CAN**		can		smoke		can	
dish		boat		cast		grease		tub	
girl		cat		test		dish		bowl	
chalk		dish		pen		keep		can	
can		**CAN**		dime		kid		van	
dish		crane		**CAN**		tan		day	
CAN		wheel		dish		dice		can	
key		fire		van		hole		rake	
screen		**CAN**		can		set		dish	
ran		take		card		dish		**CAN**	
CAN		call		stand		eye		bluff	
desk		brick		meat		friend		risk	
CAN		pair		pad		wax		**CAN**	
knob		**CAN**		can		bill		salt	
bag		spin		dish		bulb		dish	
tape		chair		set		dish		**CAN**	
CAN		**CAN**		can		class		ball	
dish		camp		tree		mine		stack	
clip		**CAN**		ice		mark		**CAN**	
CAN		dish		plum		work		rain	
air		**CAN**		can		can		hat	
ban		bridge		cost		dish		food	
cheese		scale		bird		can		can	
CAN		can		glass		bus		van	
door		fan		can		dish		disk	
can		board		light		phone		tree	
box		**CAN**		can		can		can	
dish		cool		sword		smart			
hair		three		juice		first			

3. What is the US in this experiment (1 pt)?

4. What is the UR in this experiment (1 pt)?

5. What is the CS in this experiment (1 pt)?

6. What is the CR in this experiment (1 pt)?

7. What was the dependent variable(s) in this experiment (1 pt)?

8. What was the independent variable(s) in this experiment (1 pt)?

9. What was one potential nuisance variable in this experiment (1 pt), and why would you consider it a nuisance variable (1 pt)?

10. What is the basic experimental design type (i.e., between-subjects, within-subjects, mixed; 1 pt)?

HONOR CODE (please type out and sign):