APSY 211

Summer 2020

Instructor: Dylan Campbell

Homework #2

**INSTRUCTIONS**

Fill in your answers below each question. When you have completed all questions, save this file using your name (with the format: “Last name, First name”) and then submit this document via the submission portal on Blackboard before the due date (Sunday, July 19th @ 11:59pm). Read each question carefully - you must answer all parts of a question to receive full credit.

Use the number of points each question is worth as a rough guide to how long your answer should be (see guidelines below). I will always end up converting grades into percentages (i.e., out of 100) but the point values let you know how each question will be weighted in my grading. Partial credit is available for all questions.

1-point questions = answers should be ~1-2 sentences

2-point questions = answers should be ~1 paragraph (i.e., 3-4 sentences)

3-point questions = answers should be ~1 ½ - 2 paragraphs

1. **(1 point)** Provide an example of one way in which a researcher might *operationally define* the construct of “creativity”.
2. (**1.5 points)** Provide one example of each of the following (*note:* these don’t necessarily need to be variables relevant to psychology – feel free to use variables from any field).
3. Two variables that you would expect to be *positively correlated*
4. Two variables that you would expect to be *negatively correlated*
5. Two variables that you would expect to be *uncorrelated*
6. **(2 points)** A researcher measures cigarette smoking and incidence of coronary artery disease (CAD) in a sample of participants over a period of 10 years and finds a positive correlation of *r* = .31 between these two variables. The researcher concludes that cigarette smoking causes higher rates of CAD. Explain (a) the error this researcher has made and (b) what the appropriate/justified conclusion based on this result would be.
7. In a 1981 study, decision researchers Amos Tversky and Daniel Kahneman explored how the way in which various options are framed influences people’s choices in a hypothetical life and death situation. Participants were asked to choose between two treatments for 600 people affected by a deadly disease. Treatment A was predicted to result in 400 deaths, whereas treatment B had a 33% chance that no one would die but a 66% chance that everyone would die. This choice was presented to participants with either a **positive framing** (i.e., emphasizing the number of people that would live as a result of each treatment) or with a **negative framing** (i.e., emphasizing the number of people that would die as a result of each treatment):

|  |  |  |
| --- | --- | --- |
| **Framing** | **Treatment A** | **Treatment B** |
| Positive | "Saves 200 lives" | "A 33% chance of saving all 600 people, 66% possibility of saving no one." |
| Negative | "400 people will die" | "A 33% chance that no people will die, 66% probability that all 600 will die." |

1. **(1 point)** What are the *independent* and *dependent variables* in this study?
2. **(0.5 point)** What are the different *conditions* of the independent variable?
3. **(2 points)** What procedure would Tversky and Kahneman use to make sure that the experimental conditions differ *only* on the independent variable (and not on other factors that might influence the dependent variable)? How does this procedure achieve this (i.e., explain the logic of this procedure)?
4. **(2 points)** In this actual study, Tversky and Kahneman found that Treatment A was chosen by 72% of participants when it was presented with a positive framing (i.e., "saves 200 lives") but that this percentage dropped to 22% when the same choice was presented with a negative framing (i.e., "400 people will die"). Come up with a follow-up experiment you might want to conduct based on these findings. (*hint*: Many possible answers exist here – refer back to slides 14-15 in lecture 2 about generating research questions from prior research for ideas).
5. Open the article by Flake, Pek, & Hehman (2017) attached to this assignment. In this article, the authors examined recent studies published in the *Journal of Personality and Social Psychology* and determined the percentage of these studies that provided reliability and validity evidence for the measures they used.
6. (**2 points**) Read the first page of the article, then answer: What is *construct validity*? According to the authors of this article, why is it essential for psychological measures to possess this kind of validity?
7. **(2 points)** Examine Table 2 in this article (page 5 of the .pdf – this is the same table presented in lecture 5). Define *reliability* and *internal consistency* (the form of reliability that is primarily being discussed in this article). Does a scale being high in reliability automatically mean that it is also high in construct validity? Why or why not?
8. (**1 points**) Go to the Discussion section of this article (starting on page 4 of the .pdf) and read the opening of this section (i.e., the first three paragraphs up to the “The Importance of Ongoing Validation” subsection). What do the authors conclude about current trends in social/personality psychology with regard to the reporting of validity evidence?
9. **(1 point)** Read the closing paragraph of the article (the paragraph before the ‘Author’s Note’ on page 7 of the .pdf). What do the authors suggest as a potential cause of (and solution to) the issues they discuss in this article?