First Name:_____ Last Name:_____

Student ID #: _____

PSC 041 Research Methods in Psychology WQ 2023

Unit 2 Exam Version C

Research Summary

Please answer the following questions in the space provided. Only write on the lines.

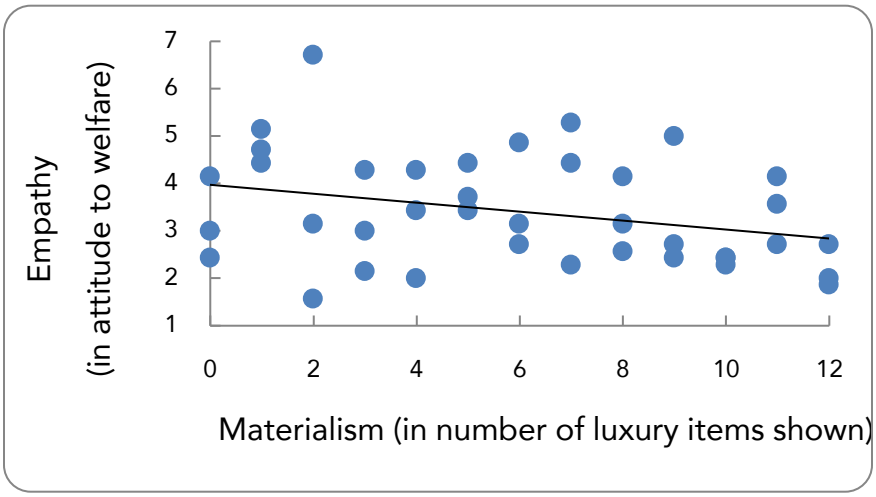
Adapted from: Leyva, R. (2018). Experimental insights into the socio-cognitive effects of viewing materialistic media messages on welfare support, *Media Psychology*

According to a new study, people who are exposed to images that glamorize wealth, fame and luxury could be less empathetic to social welfare programs that help low-income people or people experiencing poverty. Welfare programs include money given by the government to ensure that people can meet their basic needs such as food and shelter.

Researchers recruited 487 adults aged 18-49 years old to participate in this research. The participants were recruited on a website and were from a wide variety of locations and backgrounds (gender, ethnicity, SES, education, etc.). The participants were recruited in the same hour and all completed the experiment within 25 minutes. All participants were shown a series of twelve images for 5 seconds each and then asked to indicate their attitude towards welfare. Some of the images were of luxury items and some were of neutral items. Each participant was randomly assigned to see between zero and twelve luxury images with the other images being neutral. Therefore, for some participants, all twelve images were advertisements for luxury products and tabloid photos of famous celebrities showing off high-end purses, vacation rental mansions, and jewelry; for some participants, six of the items were luxury; for other participants, all twelve images were neutral stimuli such as generic advertisements for food, natural scenes, or office supplies.

The participants then completed a measure of empathy and attitude toward welfare where they rated the extent to which they agreed with 20 anti-welfare statements like: "Providing welfare makes people lazy", "Welfare should be eliminated", "The majority of people in poverty didn't work hard enough." Participants responded using a 7-point Likert-type scale (1 = *Strongly Agree*, 7 = *Strongly Disagree*). Each participant's responses were averaged to create an index of empathy with high numbers indicating more support of welfare.

Results indicated that the more materialistic pictures participants were exposed to, the less support they expressed for welfare programs $r(485) = -0.21$, $p = 0.001$.



Predictor Variable

Considering the predictor / independent variable, Materialism Exposure

10 pts 1. How did the researchers operationally define the predictor / independent variable? Describe it using your own words. *Be sure to include the levels or values and indicate how the codes will be interpreted.*

5 pts 2. The predictor / independent variable is (fill in the box)

- ☐ **Categorical**
- ☐ **Continuous**

5 pts 3. How was the predictor / independent variable measured? (fill in the box)

- ☐ **Observation**
- ☐ **Self-Report**
- ☐ **Physiological**
- ☐ **It was manipulated** (under the experimenter's control)

5 pts 4. Is this a causal or associative claim? (fill in the box)

- ☐ **Causal**
- ☐ **Associative**

20 pts 5. Evaluate the **construct validity** of the predictor / independent variable.
ProTips: Give an overall evaluation. Think about the face validity, the procedure, and the method-match to inform your decision. Use specific vocabulary. Be sure to only discuss this one variable.

Outcome Variable

Considering the outcome / dependent variable, Empathy

10 pts 6. How did the researchers operationally define the outcome / dependent variable? Describe it using your own words. *Be sure to include the levels or values and indicate how the codes will be interpreted.*

5 pts 7. The outcome / dependent variable is (fill in the box)

- ☐ **Categorical**
- ☐ **Continuous**

5 pts 8. How was the outcome / dependent variable measured? (fill in the box)

- ☐ **Observation**
- ☐ **Self-Report**
- ☐ **Physiological**
- ☐ **It was manipulated** (under the experimenter's control)

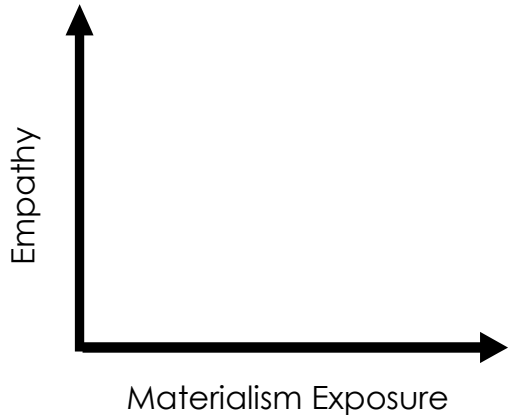
20 pts 9. Construct validity: This variable is vulnerable to a response set. Describe what makes it vulnerable. Describe how to reduce the vulnerability.

Reliability

10 pts | 10. How could the researchers establish reliability of the outcome variable?
ProTip: You can describe test-retest, alternate forms, split-half, or inter-rater.

Hypotheses
ProTip: include specific variable names and be sure to use a correct verb (causal or associative)

10 pts | 11. Sketch the null hypothesis:
(include error bars or the line of best fit)



10 pts | 12. Write a specific directional research hypothesis for this research.

Summarize the findings

5 pts 13. What sort of relationship did the research reveal?

- ☐ **No relationship**
- ☐ **Strong negative linear relationship**
- ☐ **Moderate negative linear relationship**
- ☐ **Weak negative linear relationship**
- ☐ **Strong positive linear relationship**
- ☐ **Moderate positive linear relationship**
- ☐ **Weak positive linear relationship**

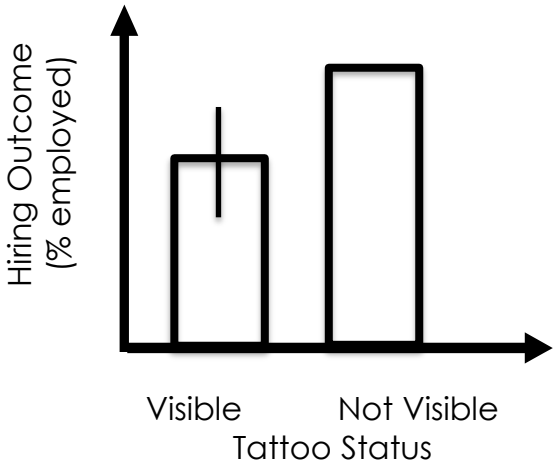
5 pts 14. The *p* value is _____ . Therefore, there ___ a statistically significant relationship between the variables. (fill in the box)

- ☐ **greater than 0.5; is**
- ☐ **greater than 0.5; is not**
- ☐ **less than 0.5; is**
- ☐ **less than 0.5; is not**
- ☐ **greater than 0.05; is**
- ☐ **greater than 0.05; is not**
- ☐ **less than 0.05; is**
- ☐ **less than 0.05; is not**

5 pts 15. Does this interpretation follow from this study: "increased exposure to materialistic images caused an increase in empathy toward welfare" Why or why not?

Multiple choice/ fill in the blank / short answer.
Select the single best answer. Indicate your choice by filling in the box to the left of your selection. Write short answers in the space provided.
2 points each.

16. Draw the remaining error bar on this graph such that the graph supports this claim: Having visible tattoos is not related to getting a job

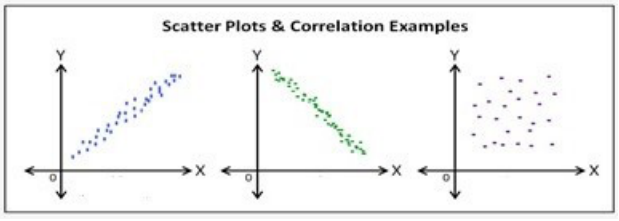


17. A correlation coefficient (r) less than -.1 means that _____.
    - ☐ as the value of one variable goes up, the other goes down
    - ☐ as the value of one variable goes up, the other also goes up

18. Which of the following tells us the strength of a correlation coefficient?
    - ☐ the sign of the r-value
    - ☐ the absolute value of the r-value

19. Which of the following values indicates a strong correlation coefficient?
    - ☐ +/- 1.00 to 1.50
    - ☐ +/- .50 to 1.00
    - ☐ +/- .30 to .50
    - ☐ +/- .10 to .30
    - ☐ 0

20. Which of the graphs below show a strong negative correlation coefficient?
    ☐ A ☐ B ☐ C



21. The finding that "shorter people have more confidence than taller people" illustrates ____ relationship.
    - ☐ a positive linear
    - ☐ a negative linear
    - ☐ a curvilinear
    - ☐ no relationship

22. Which of the following statements is an example of circular reasoning:
    - ☐ "Time was measured accurately because the two conditions took different lengths of time"
    - ☐ "Time was measured accurately because we used a stop watch"

23. You are developing a new test of Attention Span for goldfish.
    You give the currently accepted test to a goldfish, and it scores 9 seconds (average).
    You then give your new test to the same goldfish three times.
    Here are the results:
    Trial one: 3 seconds
    Trial two: 30 seconds
    Trial three: 10 seconds

    Your new Working Memory test is:
    - ☐ Reliable but not valid
    - ☐ Neither valid nor reliable
    - ☐ Both valid and reliable
    - ☐ Valid but not reliable

24. Which of the following would be the best way to measure the physiological state of anger?
    - ☐ Self-reports by individuals about their level of anger
    - ☐ Measures of brain patterns, blood pressure, and heart rate as correlates of anger
    - ☐ Observing people for signs of anger
    - ☐ Newspaper articles about the level of anger among the populace

25. A researcher included reverse-worded items in a self-report measure. How would she use reverse coding?
    - ☐ She would code all 'strongly agree' responses as 7 points and all 'strongly disagree' responses as 1 point
    - ☐ She would code all 'strongly agree' responses as 1 point and all 'strongly disagree' responses as 7 point
    - ☐ She would code all 'No' responses as 0 points and all 'Yes' responses as 1 point.
    - ☐ She would code all 'No' responses as 1 point and all 'Yes' responses as 0 points.
    - ☐ She would need to flip the coding scale so the same type of responses were coded the same way.