

1. Using the Elaine Walster study of momentary self-esteem of young women given either positive or negative personality assessments (from a San Francisco therapist), articulate the difficulties of removing deception by means of a debriefing. Then, using the studies discussed in the Ross et al. paper, describe the *evidence* that process debriefing may be useful in removing the effects of deception? [10 pts]

To answer this question, a student needed to make use of the classroom discussion of the Walster study and the Ross, et al. paper.

2. We talked about the Doob & Wood (1972) study (Catharsis and aggression: Effects of annoyance and retaliation on aggressive behavior) when we discussed two-factor designs (*Factor 1*: Participants were either Annoyed or Not Annoyed in Phase 1 and *Factor 2*: confederate is either Shocked by Experimenter, Shocked by the Participant, or Not Shocked at all during Phase 2—*DV* is shock level to rate creativity in Phase 3). However, we didn't really talk about it when discussing ethics. I'd like you to use the APA guidelines to evaluate the extent to which the Doob and Wood study is ethical. In essence, I'm asking you to "pretend" that you're a member of an IRB and to evaluate whether or not you would approve the Doob & Wood study. [10 pts]

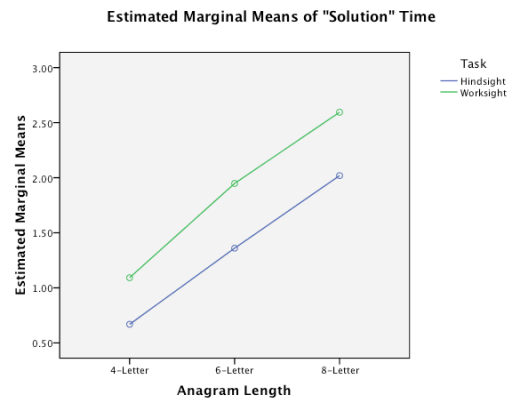
To answer this question a student needed to make use of the classroom discussion of the Doob and Wood study as well as the APA ethical guidelines.

3a. In Lab 2 we studied *hindsight bias* by presenting anagrams of different lengths, which we analyzed as a single-factor design. However, now that you know about two-factor designs, we could consider a similar study (though completely independent groups) that might be analyzed using a two-factor ANOVA. That is, we can present some people with anagrams to solve and measure the time (in minutes) to solve the anagrams (the Worksight Condition). For other people, we can present the anagrams and the solutions simultaneously. Their task is to estimate the time they think it would take someone to solve the anagram (the Hindsight Condition). Thus, to the extent that hindsight bias is present, the estimated times in the Hindsight Condition will be less than the actual solution times in the Worksight Condition. In addition to this factor, we might also examine the extent to which anagram length has an impact on hindsight bias, but unlike our lab, some people would get only 4-letter anagrams, some would get only 6-letter anagrams, and some would get only 8-letter anagrams. Thus, the two independent variables would be: TASK (Worksight vs. Hindsight) and LENGTH (4-, 6-, or 8-letter anagrams). Complete the analysis below, and interpret the results as completely as you can. Briefly discuss the results as you would in a Discussion section. [20 pts]

Descriptive Statistics

Dependent Variable: "Solution" Time

Task	Anagram Length	Mean	Std. Deviation	N
Hindsight	4-Letter	.6690	.08239	10
	6-Letter	1.3600	.10530	10
	8-Letter	2.0190	.11377	10
	Total	1.3493	.56908	30
Worksight	4-Letter	1.0920	.21049	10
	6-Letter	1.9480	.11545	10
	8-Letter	2.5950	.50322	10
	Total	1.8783	.69891	30
Total	4-Letter	.8805	.26700	20
	6-Letter	1.6540	.32024	20
	8-Letter	2.3070	.46194	20
	Total	1.6138	.68587	60



Dependent Variable:"Solution" Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Task	4.20	1	4.20	73.711	.000	.577	1.000
Length	20.416	2	10.208	179.091	.000	.869	1.000
Task * Length	.084	2	.042	.743	.480	.027	.170
Error	3.078	54	.057				
Corrected Total	27.755	59					

$$HSD_{Length} = 3.42 \sqrt{\frac{.057}{20}} = .18$$

There was a significant main effect for Task, $F(1,54) = 73.711$, $MSE = .057$, $p < .001$, $\eta^2 = .577$. The Worksight condition resulted in a significantly longer duration ($M = 1.878$) than the estimated duration in the Hindsight condition ($M = 1.349$). There was a significant main effect of Anagram Length, $F(2,54) = 179.091$, $p < .001$, $\eta^2 = .869$. Post hoc analyses using Tukey's HSD indicated that the "solution" time increased as the length of the anagrams increased, with 8-letter anagrams taking significantly longer ($M = 2.307$) than 6-letter anagrams ($M = 1.654$) and 4-letter anagrams ($M = .881$). The 6-letter anagrams took significantly longer than the 4-letter anagrams. Finally, the interaction between Task and Anagram Length was not significant, $F(2,54) = .743$, $p = .480$, $\eta^2 = .027$.

Whether actually solving the anagrams (Worksight) or estimating how long it would take to solve the anagrams (Hindsight), longer anagrams have longer solution times than shorter anagrams. Thus, it takes longer to solve longer anagrams and people recognize that longer anagrams are more complex, so they estimate that it will take them longer to solve the longer anagrams. More important, for the purposes of this study, it actually takes longer to solve anagrams (Worksight) than people estimate in the Hindsight condition. It may well be that people routinely think that tasks are going to be easier than they actually turn out to be, resulting in routine underestimations of time to complete tasks. To assess that possibility, it would be interesting to run a number of different studies with different types of tasks. It may also be that estimated time (unfilled with any effort) is different from filled time (engaged in solving anagrams). Thus, it might be important to run some studies that attempt to estimate the difference between estimates of filled and unfilled time (with tasks other than anagram solving).

3b. Suppose that you had analyzed these same data as a one-way ANOVA on TASK. What would your resulting F -ratio have been?

Source	SS	df	MS	F
Task	4.2	1	4.2	10.33
Error	23.58	58	.407	
Total	27.78	59		

4. We discussed the problem of experimenter expectancy effects in class. Describe the nature of the problem these effects create and describe at least two experiments discussed in class that argue for the existence of these effects. Discuss at least two strategies that might be used in experiments to minimize experimenter expectancy effects. Finally, if experimenter expectancy effects really do exist, why do you think that it might be difficult to demonstrate conclusively that they *do* exist? [10 pts]

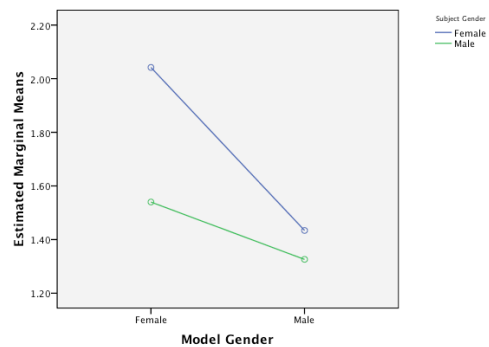
To answer this question, a student needed to make use of the classroom discussion of the Rosenthal studies, as well as related discussions.

5. In Lab 3, we discussed the impact of gender of participant on perception of the gender of faces. In a related study, Rehnman and Herlitz (2007) examined male and female subjects who viewed faces of both children and adults of either Swedish or Bangladeshi origin. They were later tested on their ability to recognize the faces from among a set of new/distractor faces (all presented in color from a frontal view, but free of facial hair and glasses). The DV in this case is d' , a measure of sensitivity (higher d' means more sensitivity, or greater recognition ability). Complete the source table below (slightly modified from SPSS output), then interpret the results as completely as you can. Finally, tell me how you would explain these results, as you would in a Discussion section. [15 pts]

Descriptive Statistics

Dependent Variable: d'				
Model Gen...	Subject Gen...	Mean	Std. Deviation	N
Female	Female	2.0420	.18594	15
	Male	1.5400	.04375	15
	Total	1.7910	.28773	30
Male	Female	1.4340	.14050	15
	Male	1.3260	.09538	15
	Total	1.3800	.13015	30
Total	Female	1.7380	.34903	30
	Male	1.4330	.13099	30
	Total	1.5855	.30326	60

Estimated Marginal Means of d'



Dependent Variable: d'

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Model	2.534	1	2.534	158.0	.000	.735	1.000
Subject	1.395	1	1.395	87.2	.000	.604	1.000
Model * Subject	.582	1	.582	36.4	.000	.389	1.000
Error	.915	56	.016				
Corrected Total	5.426	59					

$$HSD_{Model \times Subject} = 3.75 \sqrt{\frac{.016}{15}} = .12$$

There was a significant main effect of Model Gender, $F(1,56) = 158.0$, $MSE = .016$, $p < .001$, $\eta^2 = .735$. There was also a significant main effect of Subject Gender, $F(1,56) = 87.2$, $p < .001$, $\eta^2 = .604$. There was also a significant interaction between Model Gender and Subject Gender, $F(1,56) = 36.4$, $p < .001$, $\eta^2 = .389$. Using Tukey's HSD to interpret the interaction, we found that male model faces were recognized with similar d' by both male subjects ($M = 1.326$) and female subjects ($M = 1.434$). However, female faces were recognized

significantly better by female subjects ($M = 2.042$) than by male subjects ($M = 1.540$).

One way to think about these data is that females seem to be better than males, in general, at recognizing faces. Females are at least as good as males at recognizing male faces and they are better than males at recognizing female faces. One might think that people would be better at recognizing people of the other gender, but that was certainly not the case. Instead, it appears that women are particularly good at recognizing other women. It may be that women tend to see other women as competitors, so they pay attention to features in other women's faces. Men, on the other hand, tend to be oblivious. 😊

6. Chris Jones completes a senior thesis with Professor Smith. The thesis is done within an area of research about which Professor Smith is an expert and Chris developed the design of the study with help from Professor Smith. However, once they had developed the design together, Chris needed little additional guidance from Professor Smith. Chris's senior thesis was well done, but not suitable for publication. Professor Smith worked with other students (Morgan Tabernacle and Jean St. John) the following year and put together a paper that contained three studies (one based on Chris's thesis, one based on Morgan's and one on Jean's), for which Professor Smith did all the writing (drawing very little verbiage from any of the three theses).

Describe how you would use the three principles articulated in the Fine and Kurdek (1993) article to determine the authorship in the following situation. What do you think the order of authors on the paper should be? [10 pts]

To answer this question, a student needed to make use of the classroom discussion of the Fine and Kurdek article, as well as related discussions.