

9.00 Introduction to Psychology
The School for Wives Final
18 December 2003
365 total points

SCORE

p1 ____ of 15

p2 ____ of 20

p3 ____ of 25

p4 ____ of 20

p5 ____ of 20

p6 ____ of 35

p7 ____ of 25

p8 ____ of 25

p9 ____ of 30

p10 ____ of 20

p11 ____ of 30

p12 ____ of 15

p13 ____ of 20

p14 ____ of 25

p15 ____ of 30

p16 ____ of 10

TOTAL

Jean Baptiste Poquelin de Moliere was the great comic playwright of 17th century France. In 1662, he wrote "The School For Wives" in verse. In 1970, the American poet, Richard Wilbur, did a great verse translation. (Much more fun than the prose translations if you ever choose to read the play.) In 2003, we stole the plot for an Intro Psych exam. PLEASE NOTE: As on the midterm, the story is just the story, not the content of this exam. If you think that the story is confusing you, please ask and we will explain the meaning of any question. We are not trying to be tricky. Write your answers on the exam. Use the back of pages if needed. Good luck.

1. (10 pts) When the play opens, Arnolphe is discussing his plan to marry. His friend is concerned because Arnolphe has made a career of mocking "cuckolds", the husbands of unfaithful wives. (Apparently, there is a lot of marital infidelity in this town.) He seems uninterested in the possibility that some husbands might be unfaithful. Evolutionary Psychology proposes that men and women should think differently about sexual fidelity in relationships. Please explain and, while you are at it, please tell us if your answer explains why Arnolphe is only mocking the men.

2. (5) Arnolphe's friend warns him that it is dangerous for him to marry because "If the least whisper about your wife were heard, They'd mock you from the housetops, mark my word." That is, the husbands he mocked would be eager to mock him.

This would be an example of

- a) reciprocity in social exchange
- b) arousal in the James-Lange theory of Emotion
- c) a type of setpoint in Bowle's theory of motivation
- d) an "impact" in social impact theory
- e) all of the above
- f) none of the above

If you need to (and only if you need to) briefly explain your answer.

INTRODUCTION TO PSYCHOLOGY

3. (5) Arnolphe thinks he has a sure way to guarantee that his wife will be faithful. He plans to marry a girl who is not very bright.

"So simple is the girl I am going to wed,

I have no fear of horns upon my head."

(Horns were the classic symbol of a husband with an unfaithful wife).

He is convinced that she is not smart because she scored low on the WWT (the Wifely Wits Test). He says that the test is "perfectly **reliable**".

If he was using the term "reliable" in the technical sense that would be used in describing a test, then "perfectly reliable" means

- a) that the test would produce the same score for the same person every time you administered it (as long as the person's abilities didn't change).
- b) that the test measured what it was supposed to measure (here, something like intelligence). Of course, this assumes that what is measured is well-defined.
- c) that the test is useful for the purpose for which it is given. In this case, it means that the test is a useful predictor of faithfulness even though it is overtly a test of intelligence.
- d) Actually, it doesn't mean anything. The idea of test reliability was discredited by research in the last 20 years.
- e) Nah, it just means that your insurer will pay for the test.
- f) None of the above

4. (5) His friend says that the test may be reliable but its **validity** is questionable. If he was using the term "validity" in the technical sense that would be used in describing a test, then "validity" means

- a) that the test would produce the same score for the same person every time you administered it (as long as the person's abilities didn't change).
- b) that the test measured what it was supposed to measure (here, something like intelligence). Of course, this assumes that what is measured is well-defined.
- c) that it is morally acceptable to give this test for this purpose.
- d) That the questions have been tested on children to show that the test correctly tracks their development.
- e) A valid test is just like a valid license. It hasn't expired yet.
- f) None of the above.

5. (10) Well, none of this matters, says Arnolphe, because scores on the test correlate with the faithfulness of wives. He says that low scores on the WWT predict high levels of fidelity and high scores predict low fidelity. He says that this is a "negative correlation". Is he using the idea of correlation correctly? Any errors in here? Please explain. PLEASE NOTE: This is a question about correlation. You may assume that the WWT measures *something* and, for these purposes, that you can also measure faithfulness.

INTRODUCTION TO PSYCHOLOGY

6. (15) Arnolphe's friend says that marrying a stupid woman is a mistake because intelligence is largely inherited and a stupid mother will have innately stupid children. What do you think of this argument? Please cite THREE pieces of evidence that are relevant to the question of the heritability of intelligence. NOTE: You do not have to have The Correct view on this question. You can argue either side. Indeed, we would be happy to have evidence from both sides if you want. Make sure you are citing evidence and not just opinion.

7. (10) Arnolphe's friend also worries

"How can you expect an idiot
To know what's virtuous and what is not?
...
If a bright woman breaks her wedding vow
She knows what she is doing, anyhow.
A simpleton, however, can commit
Adultery without suspecting it."

Arnolphe disagrees. He believes in his own version of the **availability heuristic**. What the girl does not know about, she will not do. That's not quite right. Could you please define the availability heuristic a bit more clearly and give one example?

8. (10) The friend goes on to argue that Social Exchange Theory argues that this marriage will not be a success. Arnolphe says that he can make it a success in social exchange terms. Arguably, they are both correct. There are problems here from a social exchange point of view. But Social Exchange does point to possible solutions. Please state the social exchange problem and a possible solution.

9. (5) Well, problem or no problem, Arnolphe is not going to be talked out of this. He loves his plan. His bride-to-be, Agnes, has been raised by nuns out in the country. His original plan was that she should not be exposed to human language until she was 13 but the nuns talked him out of this. That is good because if they deprived her of exposure to human language until that age,

- a) She would have never acquired the ability to speak a syntactically correct language.
- b) She would have acquired a normal first language but have been unable to ever acquire a normal second language.
- c) Her language would have been syntactically regular but would have been largely without morphemic structures.
- d) She would have had only generative grammar.
- e) She would have only spoken in pig Latin.

10. (5) Arnolphe actually took Agnes away from her mother when she was little in an effort to raise her in isolation in order to produce the wife of his dreams. If he had been reading about Harry Harlow's experiments on monkeys raised without social attachments (p516ff in Gleitman), he might have worried about this plan a bit because Harlow's monkeys reared in isolation had problems. Which of these is/are consequences of deprivation?

- a) They tended to withdraw, huddle and rock themselves, and even bite themselves.
- b) The females tended to be sexually aggressive. They initiated mating which is not typical for the species.
- c) When they gave birth, the mothers seemed to have no trace of love for their offspring.
- d) The females tended to be dominant and adulterous, hardly what Arnolphe was looking for.
- e) A & C f) B & D g) all of the above

11. (5) You could have advised him about the relevance of the Harlow studies by saying
- a) He should worry because there is evidence of abnormal development in children raised in socially impoverished environments (e.g. the Romanian orphanages described on p517).
 - b) He should not worry because the evidence from those orphanages actually shows that humans are not like monkeys and did not show deficits from severe deprivation.
 - c) Assuming that the nuns provided at least an "adequate quality" of care, Agnes would have grown up without serious harm.
 - d) Actually, the evidence is that even so-called "adequate care" in orphanages produces long term cognitive and social damage.
 - e) A & C f) B & D g) all of the above and several other things too.
12. (5) In the second scene of act one, Arnolphe goes to visit Agnes. He has put her up in a house where she is attended by two servants, Georgette and Alain, who he picked because they were just about as dim as he thought Agnes should be. He decided to train them using the rules of operant conditioning (or instrumental conditioning - same thing). He remembered (from his Intro. Psych. course) that a variable ratio schedule of reinforcement produces a high output of the conditioned behavior. So, from the first day that they worked for him, he paid his servants on average every 2 weeks. Sometimes he would wait 7 days, sometimes 21, and so forth. He was disappointed. They did not seem to work hard.

Assume that the servants are governed by the same rules as pigeons or rats. What is the problem here? What did Arnolphe forget?

- b) He forgot that you need to shape the desired behavior gradually.
 - c) He forgot what a variable ratio schedule is. This is variable interval.
 - d) He forgot that variable schedules of reinforcement only work in classical conditioning settings.
 - e) He forgot that variable schedules of reinforcement only work under conditions of aversive conditioning.
 - f) A & B f) B & D g) B & C h) A & D
 - i) None of the above (so, explain the real problem)
13. (10) Suppose we did not assume that servants are governed by the same rules as pigeons or rats. Is there any evidence that the rules of operant (instrumental) conditioning influence the behavior of humans? Please give two concrete examples. These do not need to be experiments but they do need to be clear examples of some aspect of conditioning.

INTRODUCTION TO PSYCHOLOGY

14. (5) Alain and Georgette tend to settle their arguments by hitting each other. After Georgette clobbered Alain with a frying pan, he spent several days with an odd set of symptoms. He would only eat food on the right side of his plate. He would claim that objects or people in his left visual field were not present. Testing by the local doctor showed that he could still see stimuli in the left field. For example, he could say there was a light on if an isolated light was presented to the left in an otherwise dark room. So, he can see, but when dealing with the real world, he just denies that the left side of the world is there. This would be called

- a) neglect
- b) prosopagnosia
- c) visual aphasia
- d) hysteria (because no neurological damage could produce this problem)
- e) dysbrinia

15. (5) and the brain damage (if any) would most likely be in

- a) right parietal lobe
- b) left parietal lobe
- c) right frontal lobe
- d) left frontal lobe
- e) right occipital lobe
- f) left occipital lobe
- g) none because hysteria is not the product of a focal brain lesion
- h) the inferosuperior rostro-caudal ventricle
- i) Minneapolis

16. (5) It takes a long time and a lot of yelling before Alain and Georgette will let Arnolphe into the house. He thinks that they may have lost the ability to produce and understand speech. The technical term for this would be

- a) aphasia
- b) agnosia
- c) dysphoria
- d) prosopagnosia
- e) bushwhacked

17. (10) Eventually, he does get in and he asks Georgette if Agnes was sad when he went away (He has been away for ten days). She says 'yes'. He asks why. She says that Agnes was sad because "she expected to see you return every minute; and we never heard an ass or a mule pass by without thinking it was you." We may presume Georgette did not mean to make an association between her boss and mules and asses. It just came out that way. This speech error might be considered to be a "Freudian slip". Freud was very interested in speech errors of this sort. Why?

18. (10) Even Freud realized that not all speech errors should be considered "Freudian slips". If they are not "Freudian", what else could they be? Feel free to give an example or two as part of your explanation.

INTRODUCTION TO PSYCHOLOGY

19. (15) Arnolphe sees Agnes. She seems suitably simple and willing. He is happy. He goes back out on the street and meets Horace. Horace is the son of an old friend of Arnolphe's. Horace has just come to town. He went looking for Arnolphe but Arnolphe was out of town. So he went for a walk. As he was walking across a bridge past Agnes' house, something makes his heart race. Let's assume it was just something he ate but he does not know that the food caused this reaction. All he knows is that his heart is racing, that he is on a bridge, and that he is looking at a girl. Depending on which chapter / lecture we were thinking about, this scenario could be used to explain why Horace develops an anxiety/panic disorder OR why he falls in love with Agnes.

Your job is to explain each possibility.

20. (10) While he is contemplating whether to fall in love or have a panic attack, William James comes up and says that the James-Lange theory of emotion would not expect this to be an ambiguous situation. Please explain the James-Lange theory AND explain why it would consider this fictional choice between love and panic to be bogus.

INTRODUCTION TO PSYCHOLOGY

21. (10) Regardless of the “correct” theory of emotion, Horace has fallen in love with Agnes. He tells all of this to Arnolphe. Oh...we need to explain. Arnolphe calls himself “de la Souche” at Agnes’ house but his old friends still call him Arnolphe. So Horace is explaining his love to Arnolphe without knowing that Arnolphe is Agnes’ guardian and would-be husband (oops). Recall that Arnolphe was very happy at his home before this. Now, he says to the audience, “I shall burst with rage!” Then he makes a little plan to drive Horace away. It seems to work and, back at home, he says, “My joy is extreme.”

Hmmm...Happy, then rage, then happy – Dr. Racine declares that this sounds like “bipolar disorder”. Does it? Please explain why you would or not diagnose “bipolar disorder” in this case. Be sure that your answer makes clear that you know something about mental illness in general and bipolar disorder in particular.

22. (10) Dr. Lully says that Dr. Racine is out of his mind. He also says that Arnolphe is out of his mind. Specifically, he notes that there is a split between two parts of Arnolphe’s personality. On the street, he is filled with rage. At home, he is happy. Split = schizo, mind = phrenes. Lully says that Arnolphe is a schizophrenic. Is that a good diagnosis? Please explain in a manner that makes it clear that you know how to define schizophrenia.

23. (5) The reason that Arnolphe is happy is that he ran to Agnes’ home, told everyone that Horace was not to be admitted, and when Horace came to see Agnes, she threw a brick at him. It hit Horace in the head. At least, Horace thinks it hit him in the head. When he meets Arnolphe again, on the street, Horace says he cannot remember being hit and he cannot remember the next 20 minutes of his life after being hit, even though he was conscious. This inability to remember the next 20 minutes would be called

- a) anterograde amnesia b) proactive aphasia c) retrograde amnesia
d) retrograde aphasia e) Brick’s palsy

24. (5) Arnolphe says that all of this must be rather depressing for Horace. Horace says that, no, actually he feels great. He thinks that one reason is that being hit in the head with a brick is a little like Electroconvulsive Therapy (ECT) and ECT is used as an anti-depressant therapy. You say:

- a) Could be true: In both cases, you get transient disruption of the normal electrical activity of the brain.
- b) Could be true: In both cases there can be memory problems.
- c) Nonsense: ECT is a treatment for obsessive compulsive disorder and is specifically NOT useful for treatment of depression.
- d) Nonsense: In spite of the name, ECT does not produce a seizure or convulsions. It is used to adjust ionic balance in brain ventricles.
- e) A & B f) C & D g) Actually, ECT stands for Evil Chemistry Test.

25. (10) Actually, there is another reason why Horace is not depressed. Agnes attached a love note to the brick. In the letter, there is a list of all the things that Agnes likes. She likes: **puppies, roses, kittens, milk, chicks, ducklings, daisies, pillows, clouds, snow, sugar, ribbons, cake, and pickles.** After Arnolphe reads the letter, he asks Horace if he can remember the whole list. Please tell us how many items you think Horace can remember and, unless you are arguing that he remembers all of the items, please say which items are most likely to be remembered. NOTE: There are MANY possible answers to this question but any GOOD answer will include an explanation based on facts about memory learned in this course (rather than ad hoc speculations about Horace's taste for pickles, for example).

26. (5) After reading the letter, Arnolphe give Horace a big hug and says, "I love you like a son." This sounds a bit odd. It sounds like a Freudian defense mechanism. Which one?

- a) reaction formation b) denial c) projection d) reversion
- e) I don't know but, look, I will define a couple of defense mechanisms in the hopes of getting a couple of points.

27. (10) What is a Freudian defense mechanism? Who or what is being defended? Against what?

INTRODUCTION TO PSYCHOLOGY

28. (5) Her note also says that she has been taught that “all young men are deceivers” and that she will end up as a “date rape” statistic if she ever goes out with a guy. That seems a little overstated. A fairer statement would be

- a) Males convicted of date rape offenses have a similar psychological profile as those convicted of “blitz rape” (e.g. stranger in the bushes attackers).
- b) Males convicted of date rape offenses are systematically different from the “normal” population on personality tests.
- c) Date rape is strongly correlated with the viewing of violent pornography.
- d) On average, the lateral hypothalamus is larger in men accused of date rape.
- e) A & B f) C & D g) All of the Above
- h) None of the above i) H & G

29. (10) Horace leaves. Arnolphe is upset. He stands on the bridge and stares at the river. It is flowing from the bottom to the top of his visual field (Right? You can imagine this. He is looking over the edge of the bridge, the water is coming from under the bridge and flowing away.) He stares for several minutes. Then he looks at the house where Agnes is living. It seems to be moving. Please describe the direction of motion and explain why it looks like it is moving. NOTE: Naming the effect is NOT an explanation, though the name would be good.

30. (5) He decides that his best plan is to go home and get some sleep. After two hours or so he wakes up out of a vivid, narrative dream. Which of the following is true?

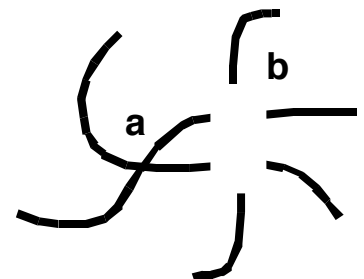
- a) The narrative dream most likely occurred during REM (rapid eye movement) sleep even though some dreaming appears to occur in non-REM sleep.
- b) Two hours would have been long enough to go through a complete circadian cycle.
- c) During the narrative dreaming stage of sleep, muscle tone for the main muscle groups of the body returns to its normal, awake state (even though the sleeper remains asleep).
- d) If he did wake up out of a dream, this would be unusual since dreaming sleep is usually a late night / early morning phenomenon occurring only after several hours of sleep.
- e) A two hour nap proves that Arnolphe is not an MIT student.
- f) A & B g) C & D h) None of the above

INTRODUCTION TO PSYCHOLOGY

31. (10) Arnolphe dreamed that he was covered in dirt having a fight with a snake. Freud called dreams the royal road to the unconscious. If Arnolphe was his patient, how might this dream be used in analysis? Please make sure that your answer shows that you know why we dream according to Freud and how dream material could be used in psychoanalysis.

32. (10) Freud wrote about this in 1900. More recent research raised major problems with Freud's theory of dreams. Please describe one of these problems. What does this mean for Freudian dream theory? Should we abandon it? Should we adapt it to the new findings? If so, how? There is no correct opinion for this answer. We are looking for evidence that you know some facts and can form an intelligent opinion, whatever that may be.

33. (10) As he lies on his bed, Arnolphe sees a pattern on his ceiling that looks something like the pattern here. He notices that this looks like three lines that cross each other. He realizes that it takes an effort to see, for example, four separate line segments meeting near the "a" on the left. He also notices that any intersections near the "b" on the right side appear to be covered up by a white blob but that "blob" isn't really there. It is the same white as the background.



What do phenomena like these tell us about perception? There are lots of answers. Good ones will reveal knowledge of important principles of perception (and maybe some terminology, too).

ANSWER ON NEXT PAGE

34. (5) There are some other odd shapes like clouds or inkblots on the ceiling. If he described what he saw to a psychologist who then used this to assess his mental state, we would say that these shapes on the ceiling were being used as

- a) a projective personality test
- b) a situationalist test
- c) an affective processing test
- d) a structured personality test
- e) a do-you-need-to-paint-the-ceiling test

35. (10) Concerned that he has not adequately trained Agnes' servants / guards, Arnolphe goes back to her house to discuss proper procedures. He asks them about, "...what distress you would feel, what shame If some dishonor touched your master's name?" He goes on to ask what they would do if Horace offered them a monetary bribe for the chance to spend some time with Agnes. They demonstrate that they would take Horace's money and then hit him on the head.

This is a moral choice (of sorts). How would Kohlberg decide what moral stage Alain and Georgette were in? If you have no idea about Kohlberg's stages of moral development, try giving us a quick review of Freud's views on the subject. That should be good for some credit.

INTRODUCTION TO PSYCHOLOGY

36. (5) So, Horace goes to the front door. Alain and Georgette drive him off....BUT Agnes lets him in the back door.....BUT then Arnolphe comes storming in.....SO Agnes hides Horace in her dark closet.

Arnolphe storms around in Agnes room in a huge rage,
“Kicking a little dog who yipped in fright.
And throwing her possessions left and right.”

Of course, everyone speculates about the neurophysiological underpinnings of this anger. Who is most likely to be correct?

- a) Agnes votes for increased frequency of action potentials in the amygdala.
- b) Alain thinks that it is the increased magnitude of the action potentials in the limbic system.
- c) Georgette believes that there has been a decrease in the activity of inhibitory neurotransmitters.
- d) The dog votes for a functional disconnection between the cerebral hemispheres.
- e) A & C f) B & D g) A, B & C h) all of these could be true.
- f) Horace thinks it is a case of demonic neuronal transplantation.

37. (5) Horace is stuck in the closet with a crazy guy threatening to rip him apart. This produces anxiety that turns into a phobia about enclosed spaces. He needs to get this treated so he goes to a therapist who specializes in behavior therapy. Which of the following methods would be labeled as “behavioral therapy” for a phobia?

- a) desensitization b) transference c) interpersonal therapy
- d) psychosurgery e) electroconvulsive therapy f) pharmacotherapy
- g) Any of these could be a behavioral therapy because the term just refers to therapy for abnormal behavior. The methodology is unimportant.

38. (10) Take the answer from the previous question and explain how the method could be used to treat Horace’s fear of enclosed spaces. NOTE: If you got the wrong answer to the previous question, we will give you partial credit for a decent description of the wrong method.

INTRODUCTION TO PSYCHOLOGY

39. (10) The noise from the house is starting to attract attention in the neighborhood. Three women gather outside to discuss the problem. They decide that Arnolphe has to be convinced that his opinions about and his actions toward women must change. The first woman declares that the Social Impact Theory gives some good ideas about how to influence Arnolphe. Please suggest a method for getting Arnolphe to behave better. Your method should illustrate the three principles of Social Impact Theory (and your answer should make it clear that you know what those factors mean. Don't make us guess. It would be a *SIN* if you forgot the factors ... Hint, Hint).

40. (5) Poor Agnes is so stressed out that she reverts to childhood. Specifically, she begins to behave like a child in Piaget's Pre-operational stage of development. If that were so (and Piaget was correct), which of the following should be true

- a) She would be unable to take points of view other than her own (egocentric behavior).
- b) She would behave as though objects went out of existence when they went out of sight.
- c) She would be able to use 2-word syntactic structure but not more complex forms.
- d) While this would not have been possible in an earlier stage, she is now able to generalize rules (e.g. even + 1 is always odd).
- e) All of the above
- f) none of the above

41. (10) But we don't think Piaget was completely correct. For example, Piaget said that Pre-operational kids lack an idea of number but there is evidence that very young children can manipulate number concepts. Please describe experimental evidence for something like mathematical ability in babies. If this doesn't ring any bells, describe any experimental evidence that contradicts Piaget. Make sure we know why you picked what you picked. What was Piaget's claim? What is the counterevidence?

42. (5) If Agnes had reverted to Piaget's Pre-operational stage, she would be behaving like a child of what age (A range is fine. Just don't try, "She would be between 1-85 yrs old").

43. (5) As she calms down, Agnes ages psychologically. Eventually she reaches the most common age of onset for the eating disorder, anorexia nervosa. What age would that be?

44. (10) Since she is the right (virtual) age for anorexia, we should worry about this. What are the risk factors for anorexia? I can think of lots of them. You should list at least four.

45. (10) Agnes is a character of 17th century France. Who is more likely to develop anorexia: Agnes or a 21st century white American female of the same age? Please explain.

9.00 FINAL EXAM
INTRODUCTION TO PSYCHOLOGY

YOUR NAME_____

46. (10) Finally, Agnes returns to her normal state. With shock she realizes that we have reached the end of the exam and that no one has asked the question that you, the test-taker, have been dying to answer. Apparently, you memorized some term or set of terms and never got to use them. Now is your chance. Define two terms from the course - two that have NOT been used as answers so far. If you can do that, you get 10 more points and you can quit! Happy Holidays.

Oh...by the way, there is a very funny scene at the end in which, of course, Horace and Agnes get together and Arnolphe is left on his own. You should pick up Richard Wilbur's translation sometime or, better yet, see the play.

And finally: Send an email if you had an exam anxiety dream this exam season.
wolfe@mit.edu will work.