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Concourse 9.00 - Introduction to Psychology 1999
Love's Labours Lost
but *not* Psych. Labours Lost (320 points)

I have heard that there is a forthcoming Kenneth Branagh film of this play so I thought it would make a good topic for the final. The play just provides the story line for this final. You do not need to know the play or Shakespearean English. If any question seems confusing, just ask about it. Use the back of the paper if you need to. Just tell us where to find the answer. You should have plenty of time to complete this. Good luck.

1. (10 points) Here is the situation in Act 1 Scene 1. The King of Navarre (on the Spanish/French border, by the way) has made a deal with three noblemen, Berowne, Longaville, and Dumain. It is a sort of proto-MIT deal. The plan to study for three years, making

"war against your own affections
 And the huge army of the world's desires,--" (act 1,scene 1... henceforth, just 1,1)

They are going to give up good food, women, and sleep in order to study. Almost immediately, Berowne objects to the plan "to sleep but three hours in the night, And not be seen to wink of all the day (meaning no naps in class)" (1,1) The others argue that he is a coward. What do you think will happen if they try to stick to a schedule of just 3 hours of sleep per day? Please defend your answer with material from the course, NOT merely with personal anecdotes about the need for sleep.

2. (5) The four 'students' begin to argue about the details of their agreement. Does the contract ban sleep or just rapid eye movement sleep? Suppose that contract bans REM sleep, but not slow wave sleep, which of the following are true (pp100ff)?

- a. Restorative sleep will be reduced but dreaming sleep will be unaffected.
- b. This is not possible. You cannot selectively eliminate or even markedly reduce the amount of REM sleep relative to slow-wave sleep.
- c. This is stupid. REM sleep is the same as slow-wave sleep.

- d. This is fine. You can eliminate REM sleep. Moreover, there are no noticeable effects of REM deprivation. For example, the percentage of REM sleep after 2 weeks of REM deprivation is the does not increase over the percentage of REM before deprivation.
- e. This is stupid, there is no such thing as sleep.
- f. Stupid or not, none of the answers above are true.

3. (5) Berowne is feeling a lot of social pressure to agree to this study plan. Three guys...one of them a king....all telling him that he should agree. Latané's Social Impact Theory seems to capture Berowne's situation. Latané theory proposes three factors that modulate the total impact. Those are: (Pick three and only three. No partial credit, p517).

- a. Number - the number of people who effect the target individual
- b. Sex - whether the people are same sex or different
- c. Immediacy - how close the people are in space or time.
- d. Interest - how interesting the topic is to the subject of the impact
- e. Strength - how powerful/authoritative are the people exerting the pressure?
- f. Sympathy - how likable are the people exerting the pressure?
- g. Nuturance - how nurturing/supportive is the subject of the pressure?

4. (10) Pick one of these factors and explain how it could be changed in this situation to REDUCE the social pressure on Berowne. Then give one example of experimental data that supports your explanation. Here is an example of the sort of answer we want (using a bogus factor):

Let's manipulate the "speciation" factor. Social pressure on Berowne would be reduced if his friends and the king were turned into dogs (another species). This hypothesis is supported by the experiment in which researchers compared the persuasiveness of speeches by worms, dogs, and humans on worms, dogs, and humans. In all cases, same-species speeches were most effective." OK...now you do the same for number, sex, or whatever.

5. (10) Pick a different one of the factors from #3 and explain how it could be changed in this situation to INCREASE the social pressure on Berowne. Then give one example of experimental data that supports your explanation.

6. (10) To make it easier to stay away from women, the men have banned women from the court (on pain of losing their tongues). However, as Berowne notes, the daughter of the King of France is scheduled to arrive tomorrow. Oops! Or as the king says "What say you, lords? Why, this was quite forgot." What sort of memory is this that has been forgotten?

- a. semantic
- b. episodic
- c. implicit
- d. subconscious
- e. unconscious
- f. You know, this is tricky. I am not sure any of these is correct. Let me explain (briefly).

In fact, please explain your answer (briefly) even if you pick something from items a-e. Your explanation should make it clear that you understand the term you chose (or refused to choose).

7. (5) Berowne comments

So study evermore is overshot:
While it doth study to have what it would
It doth forget to do the thing it should, (1,1).....

umm...yeah...great...What that means is that there is a lessened ability to recall old material (the arrival of the princess) because of material learned subsequently (p281). This is called:

- a. psychogenic amnesia
- b. iatrogenic amnesia
- c. proactive inhibition (or interference)
- d. retroactive inhibition (or interference)
- e. reaction formation
- f. being "dumber than dirt"

8. (10) In the end, Berowne agrees to sign up. He then asks what they will do for fun. The king responds that there is a man at court named Armado who speaks very strangely. He has "a mint of phrases in his brain" (1,1). He makes up new words. He speaks with an elaborate but odd syntax. He says things like "Great deputy, the welkin's vicegerent and sole dominator of Navarre, my soul's earth's god, and body's fostering patron." (1,1) when he means to be saying 'Greetings, King.'). Dumain says that he has heard the Armado did not learn to speak until he was twelve and that is why his language is so odd and complex. Is Dumain's theory reasonable? Why or why not? Be sure that your answer reveals some

knowledge about the psychology of language and language development. We don't just want some speculation about this story.

9. (5) Well, says Longaville, at least Armado is better than the character who was in the court of Navarre last year saying things like "I hinkly glomped a flingly binter with a slorg". As an example of English, this is an utterance that has

- a. morphology without phonology
- b. phonology without normal syntax
- c. syntax without semantic content
- d. semantic form without syntactic content
- e. a phonological loop without a syntactic sketchpad
- f. a URL without a webpage

10. (5) At this point, Costard (a comic character) comes in. He is under arrest because he has been "taken with a maid". This is illegal because the king has imposed his 'no women' rule on the entire court. There is a (very funny) letter from Armado that serves as eye witness testimony in this case. Costard wants to defend himself by claiming that the evidence is lousy. Armado claims that he saw Costard and a women named Jaquenetta doing something in the evening. The light was dim. In fact, these were *scotopic* light levels. That means that only the rod photoreceptors were functioning. Costard uses this to make several claims.

Claim 1: Armado would have had trouble seeing what was going on because visual acuity is greatly reduced under scotopic conditions. This claim is

- a. False, rod acuity can be essentially the same as cone (photopic) acuity as long as the light level is not too low (which it is not).
- b. True, because rods are largely absent from the fovea.
- c. False, because rods are not relevant to visual acuity. That is a brain/visual cortex issue.
- d. True, because rods are not connected to ganglion cells in the retina and so do not have normal output to visual cortex.
- e. False. because if you spare the rod you spoil the child.

11. (5) Claim 2: Armado has also said that he knew it was Costard because he recognized Costard's blue and green stripped shirt. This claim is:

- a. False, because rods are only sensitive to long-wavelength "red" light.

- b. False, because the light reaching the eye does not contain adequate information for color vision under scotopic conditions. The wavelength information is physically disrupted.
- c. False, because there is only a single type of rod photopigment and, as a consequence, scotopic lights cannot be discriminated on the basis of wavelength.
- d. True, because, while long wavelengths like red are not seen by the rods, blue and green can be seen and discriminated between under scotopic conditions.
- e. True because scotopic vision cannot hide awful taste in clothes.
- f. a & c g. a & b h. a, b, & c

12. (10) Suppose that Armado claimed to have recalled/recovered this previously hidden memory while under hypnosis. Would you regard such testimony as reliable. Why or why not. NOTE: Either "yes" or "no" can be the start of correct answers. Please defend your answer with two, specific pieces of evidence drawn from the material of this course.

13. (10) Costard is sentenced to fast for a week on bran and water. He claims that this restrictive diet will cause his corpus callosum to break, thus severing the connections between his two cerebral hemispheres. OK, this wouldn't really happen, but suppose it did. What behavioral test could we do to show that Costard was now a "split-brain" patient. Behavioral means no looking inside the skull with imaging tools, etc. Be specific and be careful.

14. (10) In the next scene, we actually meet Armado. He is accompanied by his servant, a small boy named "Moth". He is a clever lad but his thinking seems a little strange at times. He can add $1+2$ and get three (faster than his master). He knows that $3 - 1$ is 2. However, he has real trouble with larger numbers. Thus, he cannot handle $5-3$ or $4+2$, etc. Is this observation consistent with Piaget's theory of cognitive development? Please

explain your answer. If your answer is yes, please tell us what developmental stage Moth is in (ANSWER ON NEXT PAGE).

15. (10) Armado has a problem: "I will hereupon confess I am in love: and as it is base for a soldier to love, so am I in love with a base wench." (2,1)

That is, he is in love and he is in love with a woman who is his social inferior. So what is the problem? We are looking for a Social Exchange Theory answer (p491ff). However, if you don't have one of those, you can get 8 of 10 points with any answer that clearly contains relevant material from this course.

16. (10) So, what is Armado going to do about his love? He says

Assist me, some extemporal god of rhyme,
for I am sure I shall turn sonnet. Devise, wit;
write, pen; for I am for whole volumes in folio. (2,1)

That is, he is going to write poetry to her. Why would he do this? His love sounds a lot like lust. So why is he turning to sonnets rather than to more direct action? What would Freud say? Your answer should include four of the following terms, used intelligently.

Id, ego, superego, preconscious, defense mechanism, reaction formation, displacement, repression. (answer on next page)

21. (5) In Act 4, Scene 1, we return to the French ladies. We hear the Princess ask

Was that the king, that spurred his horse so hard
Against the steep uprising of the hill? (4,1)

Apparently, she could not quite tell. Her visual acuity was adequate to resolve the horse but not adequate to tell the difference between the king and some other rider. Half of the following terms refer to bits of the visual system that could influence visual acuity. Circle those five items. One point for each correct item. Minus one point for each incorrect item. OK, we won't let this question reduce your overall total. The minimum is zero points.

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| Pacinian corpuscle | cornea | lens | ganglion cell | hair cells |
| Meissner corpuscle | cochlea | fovea | pupil | otoliths |

22. (10) While they wait to find out if they will be allowed to enter the court of Navarre, French women play at word games. For instance, they play a word completion game where you have to quickly finish a word given a few cues. So PSY____ might get quickly completed as PSYCHOLOGY. When Katherine is given DU____ as a stem to complete, she comes up with DUMAIN (The guy she likes). This is interesting because DUMAIN is a much less common word than DUKE or DUNE or, even, DUNCE. This could be an example of priming. Priming comes in many forms. Many of these are considered to be examples of **implicit memory**. Please give two pieces of evidence to support the idea that priming can be an example of implicit memory. Please be sure that your answer makes it clear that you know what implicit memory is.

23. (10) By now, there is a lot of love poetry going around. Various fools are being asked to deliver these declarations of love so, of course, they are going to the wrong people. Just when you thought you were confused enough, Shakespeare introduces two new characters. Sir Nathaniel and Holofernes. Holofernes is a great scholar. Well, he *thinks* he is a great scholar. Holofernes has been studying the mental state of the king and his friends.

The king, he declares, is schizophrenic. He notes that schizophrenia means "split mind" and the mind of the king is obviously divided between his royal duties and his love for the princess of France. In fact, behind his back, people say that the king is like two people "His Royal Highness" and "Lover Boy". This has made it hard for him to get his official job done. Also, the king is melancholy (depressed) because the princess does not seem to return his love. This "inappropriate affect" is also a symptom of schizophrenia, says Holofernes. Do you agree with Holofernes' diagnosis? Why or why not? Be sure your answer reveals a knowledge of the definition of schizophrenia.

24. (10) Longaville suffers from "anorexia nervosa", says Holofernes. His body weight is 30% lower than the normal weight for a man of his height and age. He eats a highly restricted diet and seems intensely worried about becoming fat. Indeed, he claims he is fat even though everyone else thinks he looks very skinny. Do you agree with Holofernes' diagnosis in this case? Why or why not? Be sure your answer reveals a knowledge of the definition of anorexia nervosa.

25. (10) For the sake of argument, suppose Longaville did suffer from anorexia nervosa. How would you treat him if you were his doctor/therapist? Please explain your answer don't just give a one word treatment option (e.g. "Leeches").

26. (20) Holofernes believes that the treatment should involve use of his new drug, "neuroboost". Here are the claims for what neuroboost will do. If a claim could possibly be correct, mark it as OK. Otherwise, please explain why the claim is nonsense.

Claim 1 (5): In a normal synapse in most places in the brain, neurotransmitter is released by the dendrites. It crosses the synaptic gap and stimulates (or inhibits) the axon. Neuroboost increases synaptic activity by increasing the rate of release of neurotransmitter from the dendrites.

Claim 2 (5): Neuroboost improves axonal transmission by stripping off the build-up of myelin sheath around the neuron.

Claim 3 (5): Neuroboost eliminates excess inhibition of motor activity by reversing the sign of excess negative action potentials in the Globus Pallidus. That is, if the Globus Pallidus has too many negative (inhibitory) action potentials, a dose of Neuroboost will make restore the normal balance between action potentials that are positive changes in voltage and those that are negative changes.

Claim 4 (5): Finally, Neuroboost restores normal appetite by delaminating the lateral geniculate nucleus of the thalamus.

27. (5) At this point, Constable Dull enters. As you may gather from his name. Dull is not the brightest guy. Holofernes whispers to Sir Nathaniel that he has known that Dull was dull ever since he saw Dull's SAT (Shakespearean Aptitude Test) score when Dull was a child. In fact, Dull comes from a race of people known to be Dull (the Dullards, of course). Dullards are just born dull, he says.

How does Holofernes know that the SAT measures dullness? Well, the correlation of SAT with grade-point average in school is +0.65. What does this mean? PICK AS MANY ANSWERS AS YOU LIKE BUT NO PARTIAL CREDIT.

- a. 65% of those scoring above the mean on the SAT will have GPAs above the mean.
- b. If you know the SAT score, you can predict the GPA. You won't be perfect but you won't be guessing either.
- c. If you know the GPA, you can predict the SAT score. You won't be perfect but you won't be guessing either.
- d. The trait measured by SAT contributes to school performance. That is, SAT measures something that causes GPA, (but not completely . If it were complete, the correlation would be 1.0).
- e. (D) is false because correlation alone cannot tell you about causality.
- f. All of this is nonsense because correlations below 1.0 are not statistically significant. That is the meaning of the correlation coefficient number.
- g. This sure sounds like question 17, is something tricky happening?

28. (10) About this idea that Dullards are born dull. That might be quite an overstatement but there is some evidence for a genetic contribution to something we might want to call intelligence. Please give one example of evidence in favor of a genetic contribution to intelligence.

29. (10) On the other hand, there is evidence against the notion that different groups have different intelligence (as measured by things like IQ tests) AND that those differences are relatively fixed and biologically based. Please give on example of evidence that group differences in IQ might not be due to differences in biology. NOTE: Be sure that your answer includes evidence not just opinion.

29. (5) In Act 4, Scene 3, we return to the king and his three friends. They have all been sending love letters to the women of their dreams. They all feel guilty about this because they promised to be studying (remember, no women). What would Freud say about their feelings of guilt?

- a) The superego is punishing the ego for violating the superego's expectations.
- b) The id produces guilt when its needs are frustrated.
- c) The unconscious projects guilt into the preconscious.
- d) The ego uses guilt as a defense against the pressures of the superego.
- e) The ego uses guilt as a defense against the pressures of the id.

30. (10) Longaville has been having weird dreams. He dreams that his love (Maria) is running away from him into a tunnel but that he can't get into the tunnel. He is afraid that something or someone bad will get her in there. He goes to see a psychoanalyst to ask what the dream was about. He has never gone to this analyst before but he has heard that the guy is good at dream interpretation and, indeed, the analyst takes his copy of Freud's "Interpretation of Dreams" off the shelf and offers the following account: "The tunnel is a clearly sexual image. It also refers to the birth canal. This dream is a common dream in individuals who have never resolved their Oedipal desire for the mother. They cannot enter the tunnel because of fear of the father."

There is something wrong with this picture of Freudian dream analysis. What problem(s) can you find?

31. (10) For whatever reason, Longaville isn't happy with this account, so he goes to the sleep lab at the local hospital. They tell him that modern sleep research proves that Freud's ideas about dreams were complete nonsense. Are they right? Please describe two bits of information about sleep and dreams that might cast doubt on Freud's theory.

32. (20) The king and his friends all catch each other with poems (really bad poems) to their loves. They are all embarrassed but then they "resolve to woo these girls of France" (4,3). What should they do? The first thing they think of is presents. Let's send the women some presents. So, what is that all about? The king and his friends are looking for love. What are presents going to do for them? There are many explanations about how and/or why presents might help in the pursuit of romance. Please give two theories. NOTE: These must be two clearly different answers if you want full credit. They must

also reveal knowledge relevant to this course and not your own personal theory of why gifts work.

Theory One

Theory Two

34. (5) The next brilliant idea that the men come up with is to visit the women, disguised as Russians. Don't ask why, but they need a story so they say that they are travelling through France looking for their mothers who disappeared when they were children. This has left them with lifelong problems surround the issue of "attachment" (p575ff). What accounts for an infant's attachment to its primary caregiver (traditionally, the mother). Pick as many answers as you like. We might actually give partial credit on this one.

- a. Freud asserted that infants were afraid that they would be unfed without the mother.
- b. Bowlby asserted fear of the unfamiliar produced attachment. Mom represented comfort and security, not food.
- c. Harlow did research on monkeys that showed that baby monkeys would chose a soft, comforting cloth surrogate mommy doll over a cold, hard surrogate mommy that produced milk from a bottle.
- d. Nope, Harlow's monkeys went for the bottle, not the cloth surrogate, supporting Freud's view.
- e. Nope, Freud's view was that the newborn child's attachment to the mother was essentially a form of adult sexual possessiveness.
- f. And Bowlby was actually a Kansas chicken farmer who raised monkeys for Harlow on the side.
- g. all of the above.

35. (20) Well, the Russian escapade ends in great embarrassment for the guys. They are quickly discovered and the women tease them mercilessly. If this were a standard comedy, the play would end with a big wedding (at least 4-fold, maybe more). However, in Love's Labours Lost, a herald comes in to announce the death of the King of France. With the death of the princess's father, as Berowne puts it "the scene begins to cloud". The ending is very interesting. The men, especially the King of Navarre, have great

difficulty in switching from lovers to sympathetic friends of a daughter in mourning. They still want to get married....now. The women say 'talk to us in a year' and they impose strict conditions on the men; conditions like the conditions the men thought they were swearing to at the start of the play.

So says Berowne:

"Our wooing doth not end like an old play;
Jack hath not Jill:

KING: Come, sir, it wants a twelvemonth and a day,
And then 'twill end.

BEROWNE: That's too long for a play.

And it is too long for a final exam, so to end the exam, think of something you studied that you really wish had been on the final. Write a question worth 20 points and write an answer in order to get those 20 points. Be sure that this is new material. ANSWER ON BACK IF YOU NEED SPACE.