PSY342
Fall 2005

Exam 1

Time allowed: 90 minutes

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Please note:
- Not all questions have the same total point value. Please allot your efforts accordingly.
- Point form answers are acceptable.
- Answers will be marked on how well they exhibit an understanding of the material. Answers that contain all the relevant items but are not presented in a clear manner will not receive full marks.
1. (12 points total) As we discussed in class, the history of nosology of mental disorders involves several pairs of broad opposing approaches to the issue. Pick one of these sets of opposed approaches, describe each member of the pair, and for each, identify an historical example that embodied or promoted it.

2. (12 points total) Is happiness a psychiatric disorder? Why or why not? Provide arguments and evidence relevant to psychiatry that support your claim.
3. (20 points total) Some experimental paradigms used to examine psychopathologies involve tasks of spatial attention.

   a. (10 points) Briefly describe the general methodology of two different paradigms that use spatial attention tasks.

   Any two tasks that involve spatial attention are OK. The most likely tasks people will provide are the visual dot-probe task and the Gotlib colour-patch task. The relevant section of the notes is below (from the Depression pt. 2 lecture)

facilitation of spatial attention tasks: tasks of this nature involve some sort of detection or identification of a neutral nonverbal stimulus that appears in the same location as a prior target word. Facilitation for the task should result if prior target engaged attention for that location.

   - Gotlib, McLauchlan & Katz (1988) presented on a screen two color patches, each of which appeared in the same location at which a positive, negative, or neutral word had just appeared. Task was to judge which patch appeared first (both were presented simultaneously). They reported that, compared to depressed subjects, non-depressed controls selectively attended to positive words (and so identified color patches that replaced positive words as appearing faster).

     o Later replication by Mogg et al. (1991) showed that the effect was not due to level of depression.

   - Visual dot-probe tasks involve naming the top item in a pair of words appearing on screen, and also responding if a dot later appears in either location. Should be faster to detect a dot in a given location if the prior word drew attention to that location. MacLeod, Mathews, and Tata (1986) found no evidence of biased processing for negative material in depressed subjects.

   If a student provides some other task that is reasonable to describe as involving spatial attention, that would be acceptable, although they should be clear as to how it involves spatial attention. Dichotic listening, for example, could be described as involving spatial attention, but the student needs to be explicit as to the spatial nature of the task.
b. (10 points) Briefly describe a study that used one of these methodology. What was the theoretical question addressed? How was the methodology used to address it? What were the results and conclusions?

*The two above studies are acceptable. In addition, there is the Mogg et al. anxiety study using dot-probe (from Anxiety lecture notes):*

- Mogg, Mathews, and Eysenck (1992) used the visual dot probe task to examine bias changes with successful recovery. GAD patients, recovered patients, and matched controls performed the visual dot probe task using threat and nonthreat words.

  Results: *Currently anxious patients showed a shift in visual attention to the location of threat words (shorter time to detect dot if it replaced threat word, longer time to detect if it replaced non-threat word in a threat/non-threat pair)*

  Recovered patients and controls did not show a visual attention shift toward threat words.

4. (8 points total) Briefly describe in general terms how researchers demonstrate that negative cognitive effects persist after recovery from depression.

*See the discussion of cognitive vulnerability in the Depression, pt. 2 notes. Essentially, the procedure is to test recovered individuals before and after a negative mood induction. The induction is thought to provide a stressor that activates the diathesis of the negative cognitive schema. The answer can be fairly general, and doesn’t need to provide specific details on the cognitive task used or specific method of mood induction.*

5. (12 points) Given that these effects have been demonstrated, what was the point of the study by Segal, Gemar and Williams (1999) that also looked at these effects? What did they do? What did they find?

*From the Depression pt. 2 notes:*

Generally, when results are compared, those studies that test under normal mood only show no difference between formerly depressed and controls, whereas mood challenge studies reveal depressive cognitive processing in recovered individuals compared to controls.
Mood challenge studies show that, in general, vulnerable nondepressed individuals under negative mood can exhibit depressive cognitive processing.

But

Is this cognitive reactivity to a mood challenge causally related to vulnerability?

The implicit assumption of mood challenge studies is that any the mood-related cognitive changes found are somehow causally involved in vulnerable individuals increased risk for depression.

However, no studies had actually demonstrated a connection between such mood-related cognitive reactivity and risk for recurrence.

Segal, Gemar and Williams (1999):

- tested formerly depressed patients (treated either with pharmacotherapy [PT] or CBT)
- filled out DAS and a mood rating before and after a mood induction (music & autobiographical recall)
- recontacted the subjects thirty months later, to determine if they had had a relapse during the intervening period

Results The degree of cognitive reactivity to a given shift in mood significantly predicted later risk for depressive recurrence.

(I.e., those who showed a greater increase in dysfunctional attitudes with the same increase in dysphoria were more likely to have an episode of depression later on).

This result demonstrates that mood-related cognitive changes are linked to later return of symptoms.

Also

CBT group showed less cognitive reactivity (change in dysfunctional attitudes for a given change in mood) relative to PT group.

This latter result is expected if CBT really does target cognitions.
Also may suggest that CBT actually changes depressive schemata, rather than simply creating competing, more positive schemata.

(If the latter were true, the negative schemata should reassert themselves in the face of appropriate stressors.)

The students should communicate that the primary goal of the study was to demonstrate that cognitive reactivity is in fact predictive of future risk. That was the major point. The issue of effects of different treatment modalities was secondary, although if they fail to talk about that aspect, deduct 2 points.

6. (12 points total) Arousal plays a key role in some theories of anxiety. Briefly describe one such theory, making clear how arousal is involved.

Of the theories presented in the reading, the Anxious Apprehension model gives arousal the most central role, and it is the best answer. In the Anxious Apprehension model, arousal serves to narrow attentional focus, which, if one believes one is competent to perform a task, will serve to assist in performance. However, for anxious individuals, this focus serves to narrow attention on negative expectations, which increases anxiety. See the reading for a full description, which the students should be able to summarize.

A few of the other theories mention arousal, such as Bioinformational Theory, where it is one of the dimensions that characterizes emotions. However, none of these theories give arousal a focal role, and unless the student makes an argument for its centrality, they should receive only part marks for these kind of answers.

7. (14 points total) Discrepancy also is a key concept in some accounts of anxiety. Describe how this concept is involved in two different theories (you needn’t fully describe each theory, just the how discrepancy is involved.)

Discrepancy most obviously plays a role in Self-Discrepancy Theory. The mechanism is described in the reading and in the slides for Anxiety (but not the lecture notes). Other theories also talk about the detection of a discrepancy between current and desired goal as producing anxiety – the best example is Control-Process Theory, although even Anxious Apprehension could be argued to involve discrepancy between task demands and expectancies. As long as the student makes a
convincing argument for a role of discrepancy, the answer is acceptable.

8. (16 points total) Alloy and Abramson have described “depressive realism”.

   a. (8 points) What is depressive realism? Provide a general account of the way they demonstrate this phenomenon (including the relevant results).

   From the Background notes:

   Alloy & Abramson (1988) looked at expectancies of success that depressed and non-depressed individuals had for a series of trials on two different types of tasks, one determined purely by chance, the other ostensibly skill-related (but not really). Both task actually had a 50-50 chance of success on any trial.

   Alloy and Abramson found that, after several trials, non-depressed subjects would over-estimate their likelihood of future success on the "skill" trial, although would be accurate in the their estimate of success for someone else. By contrast, depressed individuals were relatively accurate in their assessment of future success, although sometimes over-estimated the success of others.

   (Alloy and Abramson have argued that this shows "depressive realism")

   From the Depression pt. 2 notes:

   Alloy and Abramson (1979) proposed the phenomenon of "depressive realism", that is, that the judgements of depressed persons are more accurate (less optimistic) than non-depressed individuals.

   In one study, they had dysphoric students and non-depressed controls perform a task in which they were to estimate the degree of contingency between their pressing of a button and the onset of a light.

   In various conditions, judgements of how much control subjects had over the appearance of the light was less accurate for the non-depressed subjects:

   o In cases where the light came on frequently, or was associated
with winning money, non-depressed overestimated their control
  o In cases where the light came on infrequently, and infrequent appearance involved loss of money, non-depressed underestimated their control

Alloy and Abramson concluded that depressed (actually, in the above study, dysphoric) individuals showed "depressive realism", and were "sadder but wiser" than their non-depressed counterparts.

Similar results have been found in many studies, suggesting that Beck's notion that depression necessarily involves cognitive distortions is false.

b. (8 points) In their review of the literature, what did Ackerman and DeRubeis conclude about the conditions under which this phenomenon is observed?

From the Depression pt. 2 notes:

In a review of the literature, Ackermann and DeRubeis concluded that:
  o When estimating control, or rating themselves and other people, dysphoric and depressed individuals appear to lack the positive, optimistic bias of non-depressed individuals. However,
  o When asked to judge their impact on other persons, or to recall information about self-relevant evaluative information, such individuals show negative distortions (e.g., underestimate how well they are liked, or under-recall how well they have performed).

9. (16 points total) What was Roediger and McDermott’s (1992) critique of research on implicit memory in depression? Describe a study that addresses this critique.

The Roediger and McDermott critique is basically that the tasks used confound two theoretically distinct features: implicit/explicit and perceptually-driven/conceptually-driven.

From the Depression pt. 2 notes:

Roediger and McDermott (1992) have suggested that the lack of bias in the implicit tasks of these studies is due to the nature of the type of
implicit tasks used.

Word-stem and word-fragment completion are primarily perceptually-driven tasks, and involve the integration of perceptual information and the activation of a matching representation in memory (this is generally true of most, but not all, tasks used to examine implicit memory).

By contrast, most explicit memory tasks involve the processing of the meaning of the stimulus, and are conceptually-driven.

If the primary problem in depression involves the semantics of the material, then most implicit tasks, which are not sensitive to this dimension, will show no bias effects, whereas conceptually-based explicit tasks will.

What is needed, therefore, is a study utilizing an implicit measure that is conceptually-driven.

Watkins, Vache, Verney, Muller, and Mathews (1996) had dysphoric and non-dysphoric students do a visualization task for a set of positive and negative words, and then later generate associates to other words, some of which were related to the "studied" items. They found that dysphoric subjects generated more of the negative target items relative to the controls.