

## **2001 AP® PSYCHOLOGY FREE-RESPONSE QUESTIONS**

2. Describe the psychological concept of expectancy or set. Discuss a specific example of how expectancy or set affects each of the following.

- Human perception
- The effects of a psychoactive drug on a human
- A student's performance in the classroom
- Human problem solving
- Memory

**END OF EXAMINATION**

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**Question 2**

**General Considerations**

1. **This is a mental set (cognitive) question, not one dealing with motivations or social expectations.**
2. Good answers emphasize cogent arguments, critical analysis, and the appropriate use of psychological terminology.
3. In most cases a point once awarded cannot be lost. However, if the answer immediately contradicts the correct statement, we presume a lack of cogency and the point is lost.
4. The points are not linked. Each point is evaluated on its own merits.
5. Questions must be answered in relatively complete sentences (i.e., subject/verb). Outlines are not acceptable.
6. Restating the stem (using “expectation” and “expectancy” to explain the stem) to describe the concept is insufficient.

<b>Point #1: Description of expectancy or set</b>
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1. Answers may use the terms expectancy and set as interchangeable.
2. The description must identify both the source/origin of the expectancy and an appropriate outcome or effect.
  - a. Source/Origin
    - The source of the expectation must come from prior experience or an inherited ability: accept “preexisting,” “preconceived,” “predisposition,” “schema,” and “knowledge” as implying prior experience.
    - “Belief systems” are more likely to represent mental sets than simple “I believe that” statements.
    - TRAP  
feelings, emotions, and other affective or motivational constructions usually are not acceptable sources of an expectation.
  - b. Outcome
    - Specifying outcomes helps us see that the student is thinking of a conceptual category (mental set) rather than making a simple prediction from a previously experienced event. E.g., “A preconceived notion causes you to interpret a new situation in a certain way” scores the point, while “My previous dealings with John allows me to predict his current behavior” (no mental set needed) does not score the point.
    - Belief systems are acceptable outcomes when derived from prior experience.
    - Outcomes must follow logically from the mental set.

**TRAP** (for both source/origin and outcome portions of point)

Simple predictions are not sufficiently complex to be mental sets (e.g., “Expectancy is what a person believes will happen after some event” does not score).

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**Question 2 (cont.)**

**HINTS**

1. Descriptions of the concept of expectancy or set (point #1) cannot be derived from definitions or examples provided in answers to subsequent points unless the answers makes it explicit that the definition is the focus of that part of the answer.
2. If answer begins with expectation of others or standards of behavior as the source, it may be hard to justify the source as a mental set or to link it to an outcome (e.g., parent's expectations that a student will do well in school do not automatically produce the desired outcome of good grades).

**General Considerations for Points 2 – 6:**

1. Points #2 – 5 require either:
  - a. A specific example that shows how an expectation involving a *psychological process appropriate to the question* leads to a cognitive or behavioral outcome. (Point #6 can be answered only this way.)
- OR**
- b. The use of a specific psychological term *appropriate to the question* that is tied to a cognitive or behavioral outcome. (It is inferred from the use of the term that the student knows the concept is an expectation or mental set.)
2. The thrust of all answers must demonstrate expectancy as the cause and producing an effect on cognitions, attitudes, or behavior as the outcome, not the other way around.

<b>Point #2: Human Perception</b>
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1. Answer must provide a specific example of :
  - a. A sensation/perception phenomenon that results in a specific outcome.  
(e.g., We misread "Paris in the the spring" because we expect sentences to flow in a particular way.)

**OR**

- b. A mental set that influences how persons, objects, or situations are perceived that results in a specific outcome.  
(e.g., "I expect all postal workers are homicidal so I avoid the mail carrier")

**OR**

2. Use of a specific psychological term relating to:
  - a) S&P (e.g., closure, Gestalt principle, top-down processing) that influences an identified outcome

**OR**

- b) Person/object/situation perception (e.g., stereotyping, schema, availability heuristic, fundamental attribution error) that influences an identified outcome  
(e.g., "Because of the availability heuristic, plane crash reports make me think plane travel is dangerous.)

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**Question 2 (cont.)**

**TRAPS**

1. Self-fulfilling prophecies cannot be used to earn this point because it's not an appropriate concept for human perception.
2. Simple learning examples (e.g., responding to a discriminative stimulus) cannot be used to earn this point (e.g., "Whenever my girlfriend sighs, I know we are going to have a fight.").

**Point #3: Drugs**

1. Example where a placebo produces a drug-like effect consistent with the expectation.

**TRAP:** References to experimental procedures designed to control for placebo effects are not sufficient unless the response of the subject is specifically linked to the placebo (double-blind experiments that include a placebo group do not, by themselves, constitute a point).

**OR**

2. A specific example where an expectancy enhances or diminishes the effects of a drug (a *drug-centered* effect).
  - a. The drug chosen need not be psychoactive.
  - b. The postulated effects of the drug do not need to be accurate.

**TRAPS:**

- The expectation must alter the drug experience, the drug cannot alter an expectation (e.g., "If you give a person LSD, it distorts their thinking" does not score)
- The expectancy must alter the effects of the drug, not produce other, unrelated behaviors (e.g., conforming to expectation of physicians to improve).

**Point #4: Performance in the Classroom**

1. Answer must provide three parts in a specific example: an *expectation* leads to behavior that produces an *outcome* appropriate to the expectation. The person holding the expectation must be the one behaving.

**NOTE:** Examples using a personality construct (e.g., self-efficacy, locus of control, optimistic explanatory style) is scored when it identifies both a behavior and outcome or effect on classroom performance.

**OR**

2. Answer must name one of the following psychological concepts, and tie it to student performance.
  - a. Self-fulfilling prophecy
  - b. Learned helplessness
  - c. Rosenthal effect, Pygmalion effect
  - d. Teacher expectancy effect

**NOTE:** Use of one of these concepts establishes the existence of a mental set and precludes the need to identify a behavior that produces the outcome appropriate to the expectation. *An appropriate outcome tied to student performance is still required.*

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**Question 2 (cont.)**

**Point #5: Problem Solving**

1. Complete, specific example that ties a problem solving mental set to successful or unsuccessful problem-solving (e.g., “a person who has learned to solve a type of problem a certain way may misapply the problem solving technique to a new problem with poor results”)

**OR**

2. Identify a problem-solving concept (e.g., heuristics, functional fixedness, divergent thinking, confirmation bias, hindsight bias, belief bias) and tie it to a cognitive or behavioral outcome (e.g., “functional fixedness can hinder performance on a current task”).
3. The direction of the effect must be appropriate to the technique (i.e., functional fixedness hinders problem solving).

**TRAPS:**

1. Outcome must be specified (“Previous experience with a type of problem leads to functional fixedness” is not sufficient).
2. Knowing when to use a specific problem-solving approach (e.g., applying a theorem, solving for “x”) is not an example of a mental set.
3. Expectations that a task will be difficult don’t count (e.g., “I expect problems in a calculus text to be hard, so I don’t do well” is not scored).
4. Watch out for motivational drift. “I expect to solve the problem so I do” is not scored.

**Point #6: Memory**

**HINT:** Unlike points #2 – 5, this point is awarded only for a specific example. There is no list of appropriate psychological terms that, when named, provide an alternative to giving a complete example.

1. Specific example of how an expectancy or mind set can alter memory processes (e.g., encoding, rehearsal, retrieval). Acceptable examples include eyewitness testimony where memory is altered by how the question is framed or by the misinformation effect, priming, semantic organization of memory, schemas and stereotyping, and reconstructive memory.

**TRAPS:**

1. Look carefully at motivational and affective examples for the expectancy (e.g., “A boy can’t remember because he is made anxious by his parent’s expectations that he should remember” does not identify an expectancy or mental set in the son).
2. Enhanced memory storage based on perceived future value of information, perceived difficulty, or interest in subject does not establish sufficient mental set (motivational drift). E.g., “I’m hungry so I’ll more likely remember the phone number of the pizza place I just saw on television” is not scored.
3. There must be specificity in the example. “We remember what we expect to remember” does not score.

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**Question 2**

<b>Sample</b>	<b>Score</b>	<b>Commentary</b>
<b>YY</b>	<b>5 of 6</b>	
	<b>Point 1:</b>	<b>(0) Description of expectancy or set</b> Expectations were defined as an outcome, not a mental set that organizes behavior and cognitions
	<b>Point 2:</b>	<b>(1) Human perception</b> Seeing the word “person” when what was written was “persn” earns the point.
	<b>Point 3:</b>	<b>(1) Psychoactive drug</b> (Good placebo example with appropriate outcome
	<b>Point 4:</b>	<b>(1) Student performance in classroom</b> Used term “self-fulfilling prophecy” with appropriate outcome
	<b>Point 5:</b>	<b>(1) Problem solving</b> Good example of functional fixedness
	<b>Point 6:</b>	<b>(1) Memory</b> Eyewitness testimony example weak but acceptable

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**Question 2 (continued)**

<b>Sample</b>	<b>Score</b>	<b>Commentary</b>
<b>ZZ</b>	<b>3 of 6</b>	
	<b>Point 1:</b>	<b>(0) Description of expectancy or set</b> The description of an expectancy does not incorporate the idea of a general set that predisposes behavior. The attempted definition of “set” is a common-sense usage of the term.
	<b>Point 2:</b>	<b>(0) Human perception</b> This example deals with experimenter bias in giving subjects instructions, not with a person using a perceptual set.
	<b>Point 3:</b>	<b>(1) Psychoactive drug</b> This is an appropriate example of a placebo effect
	<b>Point 4:</b>	<b>(1) Student performance in classroom</b> The point was awarded for the use of the term “self-fulfilling prophecy” with an appropriate outcome
	<b>Point 5:</b>	<b>(1) Problem solving</b> Functional fixedness is identified and related to the lack of divergent thinking in seeking a solution to a problem
	<b>Point 6:</b>	<b>(0) Memory</b> This is an incomplete example of remembering that is not tied to a mental set.

Write in the box the number of the question you are answering on this page as it is designated in the examination.

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YY  
pg. 1

In Psychology a set is described as an expected result to a situation. In human perception a set might hinder one's ability to detect errors in their own written paper. If they expect it to say "Person" when it actually says "persn" they might still see it how it should have been. A set is also effective with use of drugs, or more correctly with the absence of them. If a placebo is given to a person and they expect certain results, it is possible to see those results ~~due to~~ the psychological expectations. Classroom performance can also be affected by sets. If a student has a previous record of underachieving, and the teacher reads his record or consults past teachers, that would give them a bias toward that student. If the teacher expects a student to score poorly then they might treat or grade the student differently and cause lower grades. Problem solving can also be affected or hindered by sets. If, for example, I was doing calculus problems and all of the problems deal integrating by parts, but a question comes up that says  $\int_0^1 x \sqrt{x^2+1} dx$ . This would be very difficult to do by parts but if I ~~only~~ only expect one type of solution I wouldn't think to set  $u = x^2+1$  and follow the "u" method to an easy answer. Memory can be affected by sets to an extent where being a witness would not be a good thing.



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Write in the box the number of the question you are answering on this page as it is designated in the examination.

Say a rape victim is sleeping to find her attacker hovering over her. It is pitch black outside and she really can't see. When trying to recall the color of the attacker's skin she ~~may~~ might say black when in fact they could have been the opposite. ~~without light~~ without light the attacker probably was ~~a shadow~~ just a shadow. She also might have a set that all rapists are black which could alter her memory.

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The psychological concept of expectancy is that when we expect or anticipate an outcome, result or change, our behavior and perception is altered in order to attempt to fill that expectation. This is similar to the concept of set where we view things in only one way and are pretty set in your way.

Expectancy and set affect human perception greatly. For example if an experimenter is interviewing a subject about something he was involved in with the experiment, the experimenter may expect or anticipate certain answers from the subject. This expectation may ~~also~~ influence how the experimenter words his question or how s/he may react to answers ~~when asked a question~~. This could result in the subject not answering questions fully and truthfully (this may not be intentional). This is experimenter bias and affects the reliability of the experiment results.

When a person takes a psychoactive drug, s/he may expect to feel better and ~~and~~ symptoms will be relieved. The patient may feel better only because s/he expects the medicine will relieve his symptoms or cure the disease. ~~but~~ This is the placebo effect. In experiments to study the effectiveness and side effects of <sup>new</sup> medications, a control group may

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be given a placebo pill which is just a sugar pill. If their symptoms get better or they suffer side effects the experimenters know this is due to the ~~patient~~ placebo effect. These results are compared to the experimental group's results (who received the real medicine) to ~~see~~ uncover the effectiveness and side-effects of the real medicine.

If a student ~~is~~ expects to do poorly in class, the student will do poorly. This is self-fulfilling prophecy. The student expects to do poorly so, whether consciously or unconsciously, his behavior is changed that will eventually lead to failure. Also, if the student constantly makes a whole-hearted effort to do well in a particular class but doesn't achieve any success, the student will always assume he'll fail and stop trying even if a situation comes up where he could do well if he tried. This expectancy to fail leads to learned helplessness which was just described.

In ~~problem~~ problem solving, humans don't always use divergent thinking and become ~~set to~~ ~~for~~ see that there is only one set way to solve ~~some~~ a problem. This is called functional fixedness. We see the only use of a

Write in the box the number of the question you are answering  
on this page as it is designated in the examination.

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Straw as a device to drink with rather  
than seeing it as a possible  
antenna to a cardboard building.

~~Set and expectancy are memory in  
affecting the way we remember~~

Expectancy can affect our memory.  
~~When~~ If we expect a certain result  
of an experiment, later on when we  
recall the results we may remember  
what we expected to happen as the  
results rather than what really happened.  
Also, the results may be completely  
opposite of what we expected and  
we were so surprised by that, we'll always  
remember the results since emotions  
help form long-term memory.

Set and expectancy affect greatly  
many different psychological and  
behavioral experiences humans have.