AP® Psychology
1999 Scoring Guidelines

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Question 1: Part A

Point #1 — Body or brain chemistry
Name a specific body/brain chemical (e.g., hormone, neurotransmitter) and identify its directional effect on an eating-related behavior, hunger, or body weight.

Exception: Saying that substances released from the pituitary (or an appropriate endocrine gland, e.g., thyroid) affect eating-related behaviors or body weight is acceptable *without identifying the specific hormone.*

Examples:
If no direction is specified for a substance, assume its presence.

Blood glucose Cholecystokinin (CCK) Norepinephrine Dopamine Serotonin Glucagon Leptin	When levels of these substances are low, hunger or eating results When levels of these substances are high, satiety (fullness) results

Insulin Neuropeptide Y	When levels of these substances are high, hunger or eating results When levels of these substances are low, satiety (fullness) results

Too Vague to Score:

- Low blood sugar (no explanation).
- "Blood sugar relates to hunger" (doesn't specify direction of effect).
- "Marijuana causes munchies" (exogenous drugs don't score).

Other Considerations:

a. Trap: Metabolism is a process, not a chemical. Do not score.

b. Accept abbreviations (e.g., CCK). Allow for reasonable permutations.

c. Ignore (do not penalize) misstatements about a specific chemical agent in otherwise correct answer (e.g., glucose as a neurotransmitter or CCK from stomach).

d. Exogenous drugs don't score, but watch for the naming of a specific endogenous mechanism. (e.g., "Prozac decreases hunger by increasing serotonin" scores because of the correct reference to serotonin, but "Prozac decreases hunger" is not sufficient).

Question 1: Part A (cont.)

Point #2 — Brain structure

A. *Name the lateral hypothalamus, ventromedial hypothalamus, or other specific brain structure and explain its role in the regulation of eating or body weight.*

OR

B. *Identify the hypothalamus as regulating eating / body weight in both directions (concept of dual function of hunger and satiety).*

Examples:

1. Specific brain structure
    - Lateral hypothalamus (LH) as eating center (e.g., stimulation produces eating or damage leads to no eating).
    - Ventromedial hypothalamus (VMH) as satiety center (e.g., stimulation results in satiety or lesion produces overeating).
    - Reference to the pituitary controlling metabolism.

2. Dual function of hypothalamus
    - "The hypothalamus regulates both eating and satiety."
    - "Damage to the hypothalamus can either increase eating or produce a feeling of fullness."

Too Vague to Score:

- "Brain damage causes obesity" (no mechanism specified).
- "Stimulation of the hypothalamus increases hunger" (only one function acknowledged).
- "The hypothalamus regulates eating" (dual role not acknowledged).

Other considerations:

- Trap: Metabolism is a process, not a brain structure. Don't score.
- Score sensory deficits only if appropriate brain structure or neural pathway is specified (e.g., "if the olfactory bulb is damaged, a person will eat less because food is less appealing").
- Accept abbreviations (e.g., LH, VMH) and allow for reasonable permutations.

Question 1: Part A (cont.)

Point #3 — Genetics

Identify one of the following as being genetically-determined:

1. *Body weight set point*
2. *Metabolic rate (BMR)*
3. *Number of fat cells*
4. *Obese (OB) gene (accept chromosome 15)*
5. *Other scientifically-established, genetically-based disorders that have a direct effect on eating habits or body weight (e.g., diabetes, hyperthyroidism, hypothyroidism)*

Too Vague to Score:

- Inherited tendency or predisposition without reference to one of the acceptable effects.
- "A person is genetically programmed to be obese."

Other considerations:

a. Trap: Size of fat cells (not number). Don't score.

b. Trap: Can't inherit behaviors (Lamarckian). Don't score.

Question 1: Part A (cont.)

Point #4 — Reinforcement

Identify a behavior related to eating or body-weight regulation and explain how it is acquired or maintained by reinforcement (or diminished by punishment). The mechanism of reinforcement can be defined conceptually or established by example.

Reinforcement mechanism:

Terms like "positive reinforcement" and "reward" are sufficient definitions, but "reinforcement" alone is not because it adds nothing to the language of the question. In this latter case, specification of the reinforcer and its relationship to the behavior is necessary.

Allowable relationships:

1. Eating (or not eating) behaviors can be reinforced (or punished).
   Examples:
   - "Eating habits are positively reinforced by parents."
   - "Poor eating habits are punished by scolding."
   - "Eating tasty foods is reinforcing, which encourages consumption of those foods."

2. Taste aversions can develop, modifying eating habits.
   Example: Chemotherapy patients may learn to avoid foods eaten during therapy."

3. Food can be used consistently as a reinforcer, thereby changing the recipient's body weight.
   Example: A child is given candy for doing daily chores and gains weight.

4. Delay of reinforcement affects degree of learning associated with eating
   Example: Eating fruit instead of candy does not immediately improve health so it may be difficult to change eating habits.

Too vague to score:

- "Eating reduces stress" (no reinforcement mechanism identified).
- Child's eating habits reinforced by parents (mechanism of reinforcement not established).

Question 1: Part A (cont.)

Answers to both Part A and B must be cogent arguments. The essay should explain by definition and/or example rather than merely mention mechanisms and their effects on eating habits and body weight.

Point #5 — Modeling

Acquisition of a behavior related to eating or body weight regulation through observational learning / role modeling

Examples:

- "A child sees her father eating cheeseburgers and adopts this eating habit."
- "A person hears that his favorite athlete eats a special food and begins eating this item."
- "A person reads that a model eats only salads and does the same."

Too vague to score:

a. Your parents eat too much and you do too (no modeling mechanism identified).

b. I want to be a model (no eating-related behavior specified).

c. A child models the eating habits of her mother (repeats the word "model" from the question without adding additional explanation).

Other considerations:

a. Mechanism must be explicit-person must observe/see/hear about/be exposed to another's behavior.

b. Can be a good or bad outcome on eating-related behavior or behaviors associated with body weight regulation.

c. No credit for simply parroting the word "model" unless an appropriate example or explanation is given.

Question 1: Part A (cont.)

Point #6 — Cultural Factors

*Indicate how cultural pressures, expectations, or norms influence eating-related behavior or standards for body weight. The concept of cultural **pressure** on an individual must be explicit.*

Examples:

- "A thin body ideal in America encourages people to diet."
- "Cultural variations in diet dictate what is eaten."

Too vague to score:

- "In the United States, people are thin" (no pressure).
- "The media pressures people to look like models" (no reference to body weight).
- "Anorexia is caused by the media."

Other considerations:

a. Cultural standard must make explicit reference to eating habit or body weight (e.g., thin, not just beauty).

b. Trap: Fitness is not synonymous with eating habits or body weight regulation.

c. Treat societal factors as cultural.

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Question 1: Part B

*An essay must give a **cogent** argument showing how the selected mechanism has the potential to manage weight. Management requires an attempt at behavioral regulation; it is not established by merely stating that certain biological or learning factors are difficult or impossible to overcome.*

The essay must identify a selected mechanism (biological or learning).

Special consideration:

Students often combine biological and learning mechanisms in one paragraph. Points can be awarded for both as long as each mechanism is identified as biological or learning and a strategy for management of each is clear.

Point #7 — Biological implications

Examples:

- Strategies designed to correct a physiological dysfunction are identified (e.g., a diabetic using insulin).
- "Monitoring one's diet to counter a genetic predisposition to obesity."

Too vague to score:

- "Inheriting a slow metabolism will make it hard to lose weight" (no action / strategy of weight management).

Point #8 — Learning implications

Examples:

- "Learning to eat a balanced diet as a child makes it easier to maintain proper weight."
- "Anorexics actively seek/defend unhealthy body weight."
- "Children in Spain walk a lot and eat a large meal only at lunch, so they are seldom fat."

Too vague to score:

- "A young woman succumbing to cultural pressure to look thin, becomes anorexic" (no mention of weight management).

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Question 2

A. Definition for each term is 1 point and application is 1 point and they are not dependent on each other. The application must be identified with the correct term and linked back to the experiment.

B. Definition is an odd number point and application is an even number point.

C. The first four concepts are from the subject's point of view and the last concept is from the experimenter's point of view

- **Schema** — Points 1 and 2
- **Retroactive Interference** — Points 3 and 4
- **Representativeness Heuristic** — Points 5 and 6
- **Confirmation Bias** — Points 7 and 8
- **Framing** — Points 9 and 10

Schema — Points 1 and 2

Definition (1 point): A framework used to organize information

Concept		**Process for input of information**
template structure framework set plan model expectations representations blueprints set of ideas mental set network	OR	organizing interpreting incorporating ordering shaping predicting

Question 2 (cont.)

NOT:

- Perception alone will not do it (e.g., "the way you perceive")
- Mind set, preconceived ideas, patterns of thought
- Example is not a definition
- Outcome only-understanding, how I see the world, knowledge.

Application (1 point): Participants have formed the expectation that the male is the aggressor. Outcome is acceptable in the application.

Retroactive Interference — Points 3 and 4

Definition (1 point): Information that is presented *after* the presentation of information to be remembered interferes with or blocks old information.

The definition of retroactive interference can be phrased in terms of information without specific reference to memory processes.

- Disruptive effect of new learning on old information
- New information distorts old information

Application (1 point): The photographs that were presented after the photo of the "public park" might interfere with or block the details of the "public park" photo.

Representativeness Heuristic — Points 5 and 6

Definition (1 point): A rule of thumb for judging the likelihood of events based on how well something fits a prototype. That is, how similar are people (or an individual) in the event to prototypical views of such people?

Question 2 (cont.)

Defining the representative heuristic as a concept, conclusion, or reasoning process is acceptable. These are presented, respectively, in the boxes below.

- "rule of thumb," or "problem-solving strategy," or "cognitive shortcut" may stand alone

OR

- a judgment, decision, solution, or conclusion based on how well an observation or event fits one of the following: a prototype, schema, cultural norm, or stereotype

OR

judging, deciding, solving, figuring out or processing in line with what one	normally typically generally usually	experiences in most situations as related to the issue of male-female aggression depicted in the photographs

NOT:

- References to perception or perceptual experiences alone.
- References to memory, remembering, or recall (e.g., "remembering things that stand out the most").
- Individual is representative of a population or group (i.e., the representativeness heuristic does not refer to how an individual may or may not be representative of a population; this is not representative sampling).

Application (1 point): Aggressive men/non-aggressive women are seen as more "typical." An aggressive man fits this prototype, an aggressive woman does not. Hence, participants conclude that the man is the aggressor or that the woman is not the aggressor. Participant chooses, decides, judges, perceives, or selects a strategy which lends to the conclusion that the male is the aggressor (or that the woman is not the aggressor as depicted in the photograph). Answers must relate the error to this study and context.

Question 2 (cont.)

Confirmation Bias — Points 7 and 8

Definition (1 point): Attending to information that supports one's preconceptions. You pay attention to information that confirms your preconceptions and/or ignore information that does not.

• Tendency to search for information or cues that	confirm	our	ideas
	support		beliefs
	go hand in hand with		preconceptions

OR

- Pay attention to information that confirms our bias

OR

• Ignore or reject information that is contrary to beliefs or that	interferes with	new information
	prejudices	
	blocks	
	distorts	

NOT:

- Something that confirms our bias
- Identifying experimenter bias

Application (1 point): Participants pay attention to the aggression in the "public park" photo, but do not pay attention to the fact that the woman is the aggressor because that does not fit their preconceptions.

Framing — Points 9 and 10

Definition (1 point): The way a question is posed (how it is "framed") can alter judgment, decision-making, and recall.

Question 2 (cont.)

• The way an issue or question is	posed	can	alter	the participant's response
	framed		change	
	asked		influence	
	presented		affect	

NOT:

- Procedural manipulation (e.g., changing sequence of photographs, changing the location of the experiment)
- Body language or other nonverbal communication

Application (1 point): The way the experimenter asks the question or describes the procedure will influence the participant's description of the photo. The open-ended question may allow preconceived notions to have maximum effect.