# Exam grade and feedback for 3

Grade: 5.5

# Question 1

According to Jonathan Haidt's social-intuitionist model of moral judgment, what is the role of System 1 and System 2 thinking in moral reasoning? And which System is most dominant according to this model? Answer key:

- System 1 thinking refers to the role of intuitions (or: emotion)
- System 2 thinking refers to the role of reasoning (or: rational thought, or: deliberation)
- System 1 thinking (or: intuition, or: emotion) is more dominant than System 2 thinking (or: reasoning; or: rational thought, or: deliberation).

#### Your answer:

System 1 relies on fast, intuitive thinking, while System 2 involves slow, deliberate, and conscious reasoning. System 1 tends to be more dominant because it requires less effort.

#### Feedback:

- Correct: The student correctly identifies System 1 as intuitive thinking, which aligns with the answer key's requirement to describe System 1 as involving intuitions or emotion.
- Correct: The student correctly identifies System 2 as deliberate, conscious reasoning, which matches the answer key's description of System 2 as reasoning, rational thought, or deliberation.
- Correct: The student correctly states that System 1 is more dominant, which directly satisfies the answer key's requirement that System 1 thinking is more dominant than System 2 thinking.

Score: 1.0

# Question 2

Imagine that one of your colleagues from the lectures looks like a fashion model. Based on this observation, you assume that he or she probably is a fashion model. Which heuristic underlies this assumption? Briefly explain this heuristic. Answer key:

- The representativeness heuristic underlies this assumption.
- The representativeness heuristic means that we estimate the likelihood of someone belonging to a category (such as that of a fashion model) based on how much that person resembles the stereotype from that category (a stereotypical fashion model).

## Your answer:

Simulation heuristic. Because you can readily picture your coworker as a fashion model, you perceive this situation as more probable.

#### Feedback:

- Incorrect: The student incorrectly identifies the heuristic as 'simulation heuristic' when the correct answer is 'representativeness heuristic'. These are different cognitive heuristics with distinct mechanisms.
- Incorrect: The student's explanation describes the simulation heuristic (ease of imagining/picturing scenarios) rather than the representativeness heuristic, which involves judging probability based on similarity to stereotypes or prototypes.

Score: 0.0

# Question 3

What is anchoring, and what is the primacy effect? And what do they have in common? Answer key:

- Anchoring is the tendency to take the first piece of information as the starting point
- The primacy effect is the tendency to better remember the first piece of information
- Both have in common that they correspond to an overreliance on the first piece of information

### Your answer:

Anchoring involves relying on an initial piece of information as a reference. Primacy denotes the tendency for the first piece of evidence to be given greater importance. Both concepts pertain to the initial information presented to an individual.

### Feedback:

- Correct: The student correctly identifies anchoring as relying on initial information as a reference, which aligns with the answer key's definition of taking the first piece of information as the starting point.
- Correct: The student accurately describes primacy as giving greater importance to the first piece of evidence, which corresponds to the answer key's concept of better remembering the first piece of information.
- Correct: The student correctly identifies that both concepts relate to initial information presented to an individual, which captures the essence of overreliance on the first piece of information mentioned in the answer key.

Score: 1.0

What is the difference between loss aversion and risk aversion? Answer key:

- Loss aversion refers to the fact that we weigh losses more heavily than gains (or: the tendency to prefer avoiding losses over equivalent gains).
- Risk aversion refers to the tendency that we prefer certainty over uncertainty.

#### Your answer:

Loss aversion describes the inclination to avoid or reduce losses. Risk aversion indicates a preference for a guaranteed gain rather than a risky one, even if the risky option could result in a higher reward.

### Feedback:

- Incorrect: The student describes loss aversion as 'inclination to avoid or reduce losses' but misses the key concept that losses are weighted more heavily than equivalent gains. The definition lacks the comparative aspect that is central to loss aversion.
- Correct: The student correctly identifies risk aversion as preferring certainty (guaranteed gain) over uncertainty (risky option), which aligns with the answer key's definition of preferring certainty over uncertainty.

### Score: 0.5

# Question 5

What is impact bias? And how could impact bias prevent people from breaking up, even when they are unhappy in their relationship? Answer key:

- Impact bias is the tendency to overestimate the impact of future events on our future feelings.
- Impact bias may prevent people from breaking up because they overestimate how bad the break-up will make them feel.

### Your answer:

Impact bias is the tendency to exaggerate how strongly future events will affect one's emotions. This may cause a person to avoid ending a relationship because they anticipate feeling more sadness than they actually will.

### Feedback:

- Correct: The student correctly identifies impact bias as the tendency to exaggerate how strongly future events will affect emotions, which aligns with overestimating the impact of future events on feelings.
- Correct: The student accurately explains that impact bias prevents breakups because people anticipate feeling more sadness than they actually will, which matches the concept of overestimating how bad a breakup will make them feel.

Score: 1.0

# Question 6

What is affective forecasting, and why is it important to consider it in end-of-life decisions? Answer key:

- Affective forecasting refers to predictions about our own future emotional state.
- Healthy people may predict that they will prefer to die when they get sick. But when they actually get sick, they may not actually prefer to die.

#### Your answer:

Affective forecasting refers to the way individuals predict their future emotional experiences. Because people often exaggerate how strongly they will feel, this should be considered when making decisions.

#### Feedback:

- Correct: The student correctly defines affective forecasting as predictions about future emotional experiences, which matches the answer key's definition of 'predictions about our own future emotional state.'
- Incorrect: The student mentions general prediction errors but fails to specifically address the end-of-life context described in the answer key that healthy people may predict preferring death when sick, but actually sick people may not prefer to die.

Score: 0.5

# Question 7

According to prospect theory, do people over- or underestimate low probabilities? And does this differ between merely low probabilities (e.g. 10%) and extremely low probabilities (e.g. 0.01%)? Answer key:

- Merely low probabilities are often overestimated.
- Extremely low probabilities are often interpreted as impossibilities.

### Your answer:

Exceptionally small probabilities can be regarded as impossible, while simply low probabilities might be exaggerated.

### Feedback:

• Correct: The student correctly identifies that low probabilities are overestimated by stating they 'might be exaggerated', which aligns with the answer key point about overestimation. • Correct: The student accurately captures that extremely low probabilities are treated as impossibilities by stating 'exceptionally small probabilities can be regarded as impossible', which matches the answer key.

Score: 1.0

# Question 8

When expressed in terms of utility in prospect theory, what does loss aversion reflect? Answer key:

• Loss aversion means that negative utilities are weighed more heavily than positive utilities. (Or: that the value function is steeper for losses than for gains.)

Your answer:

Loss aversion refers to the tendency to avoid negative outcomes. According to prospect theory, it suggests that the discomfort caused by losses is generally stronger than the satisfaction gained from equivalent wins, meaning losing and gaining the same amount of money do not have equal emotional impacts.

# Feedback:

• Correct: The student correctly identifies that loss aversion means losses have stronger emotional/psychological impact than equivalent gains, which translates to negative utilities being weighed more heavily than positive utilities in prospect theory's value function.

Score: 1.0

# Question 9

What are the two main differences between expected value theory and expected utility theory? Answer key:

- Expected value theory deals only with financial values, whereas expected utility also deals with non-financial values.
- Expected value theory does not consider any heuristics and biases, whereas
  expected utility theory considers risk aversion.

### Your answer:

Expected utility theory considers biases and heuristics and assumes that the concept of "utility" is subjective, varying from person to person.

### Feedback:

Incorrect: The student does not address the distinction between financial
vs non-financial values, which is a key difference between expected value
theory and expected utility theory.

 Correct: The student correctly identifies that expected utility theory considers biases and heuristics (specifically mentioning risk aversion through subjective utility), which aligns with the answer key point about expected utility theory considering risk aversion while expected value theory does not.

Score: 0.5

# Question 10

What are the four models of choice, value, and utility that we considered in the lecture? Very briefly explain each model. Answer key:

- Expected value theory: a normative model of choosing between different options. Each option has several of possible financial outcomes with a probability
- Expected utility theory: just like expected value theory, except that outcomes have a utility that doesn't need to be financial, but can also subjective
- Multi-attribute utility theory: a normative model of choosing between different options. Each option has multiple attributes. Each attribute has a utility and a weight.
- Prospect theory: a descriptive (behavioral) model of choosing between different options. This is similar to expected utility theory, but also considers heuristics and biases.

Your answer:

### Feedback:

• Incorrect: No answer provided

Score: 0.0

### Question 11

How does loss aversion affect the degree to which people are risk averse? Answer key:

 People are willing to accept risk if this means that they can avoid a potential loss. In other words, loss aversion may decrease people's tendency to be risk averse, and can even make people risk seeking.

Your answer:

Individuals who are very averse to loss tend to avoid risk in order to reduce the chance of experiencing a loss.

Feedback:

• Incorrect: The student incorrectly states that loss aversion makes people avoid risk to reduce losses. The answer key indicates the opposite - loss aversion actually decreases risk aversion and can make people risk-seeking when trying to avoid potential losses.

Score: 0.0

# Question 12

What is conditioning? And what is the difference between classical and operant conditioning? Answer key:

- Conditioning is learning associations through covariation.
- Classical conditioning: when two things tend to happen together in time and space, we learn to associate them.
- Operant conditioning: learning that actions cause rewards or punishments.

#### Your answer:

Conditioning is a learned reaction to a specific stimulus. Classical conditioning relies on the close timing between a rewarding stimulus and the conditioned response. Operant conditioning involves using rewards and punishments to influence behavior.

#### Feedback:

- Incorrect: The student defines conditioning as 'a learned reaction to a specific stimulus' rather than 'learning associations through covariation.'

  This misses the key concept of learning associations between events.
- Incorrect: The student incorrectly describes classical conditioning as involving 'rewarding stimulus and conditioned response' rather than learning associations when two things happen together in time and space. This confuses classical conditioning with operant conditioning concepts.
- Correct: The student correctly identifies that operant conditioning 'involves using rewards and punishments to influence behavior,' which aligns with the answer key's description of learning that actions cause rewards or punishments.

Score: 0.333333333333333333

### Question 13

What is the difference between illusory causation and illusory correlation? Answer key:

• Illusory causation is when a correlation is incorrectly interpreted as a causal relationship, whereas illusory correlation is when a correlation is perceived between two variables that do not actually correlate.

Your answer:

Illusory causation involves wrongly concluding that one event causes another based on observations like their correlation. Illusory correlation refers to the incorrect belief that two events occur together when they do not.

#### Feedback:

• Correct: The student correctly distinguishes between illusory causation (wrongly inferring causation from correlation) and illusory correlation (perceiving correlation where none exists). The explanation accurately captures both concepts and their key difference.

Score: 1.0

# Question 14

When people apply for Dutch nationality or a Dutch residence permit, they need to complete a test of Dutch culture as part of the so-called inburgeringsexamen. As part of this test, people are supposed to understand how the Dutch healthcare system works, and how to 'properly' behave at a birthday party. Which of these two examples is a schema, and which is a script, and (briefly) why? Answer key:

- Understanding of the Dutch healthcare system is a schema, because it corresponds to knowledge and relationships between things
- Knowing how to behave at a birthday party is a script, because it corresponds to a social schema that describes how you should behave in a specific situation

### Your answer:

A birthday is considered a script because it involves typical patterns of behavior in familiar social contexts. In contrast, the healthcare system is viewed as a schema since it represents a more intricate framework.

#### Feedback:

- Correct: The student correctly identifies the healthcare system as a schema and provides an appropriate rationale that it represents a framework of knowledge, which aligns with the answer key's explanation about knowledge and relationships between things.
- Correct: The student correctly identifies birthday behavior as a script and explains it involves typical patterns of behavior in social contexts, which matches the answer key's explanation about social schemas describing behavior in specific situations.

Score: 1.0

# Question 15

Behaviorism was an approach to psychology, mainly popular in the early 20th century, that emphasized that the mind could not be measured, and that

psychologists should therefore focus on how stimuli trigger behavior. If you think of this in terms of Daniel Dennet's stances (or: levels of analysis), which stance did behaviorists adopt, and (briefly) why? Answer key:

• Behaviorists adopted the physical stance, because they focused on the processes that caused a stimulus to result in a behavior.

#### Your answer:

Mechanical stance concentrates exclusively on an object's observable characteristics, without considering any motivations or intentions.

#### Feedback

• Incorrect: The student incorrectly identifies the 'mechanical stance' instead of the 'physical stance' from Dennett's framework, and while they correctly note the focus on observable characteristics without intentions, they don't connect this to how stimuli cause behaviors, which is the key behaviorist principle.

Score: 0.0

# Question 16

Evolutionary psychology, sometimes also called functionalism, is an approach to psychology that considers psychological processes from the perspective of their usefulness in evolutionary terms. For example, ingroup favoritism (our tendency to prefer people from our own group) would be beneficial because it stimulates the emergence of protective communities. If you think of this in terms of Daniel Dennet's stances (or: levels of analysis), which stance do evolutionary psychologists adopt, and (briefly) why? Answer key:

• Evolutionary psychologists adopt the design stance, because they consider psychological processes in terms of their function.

# Your answer:

The one that is neither mechanical nor deliberate :( This pertains to examining an object based on its intended function or purpose.

#### Feedback:

• Correct: The student correctly identifies the design stance by describing it as examining objects based on their intended function or purpose, which aligns with evolutionary psychology's focus on psychological processes in terms of their adaptive function. The initial phrase appears to be a process of elimination reference to Dennett's three stances.

Score: 1.0

To judge whether event A causes event B, or merely correlates with event B, we make use of five heuristics, as described in the lecture. What are these heuristics? Provide a very brief explanation of each. Answer key:

- Distinctness (or: specificity). A likely causes B, when B follows A, but does not follow other events.
- Consistency. A likely causes B, when B always follows A.
- Plausibility. A likely causes B, when common sense makes it plausible that A causes B.
- Contiguity in time and space. A likely causes B, when A and B occur at the same time and in the same location.
- Similarity in cause and effect. A likely causes B when A and B superficially resemble each other.

Your answer:

#### Feedback:

• Incorrect: No answer provided

Score: 0.0

# Question 18

We tend to overestimate how many people are morally outraged based on what we see on social media. Which two biases primarily contribute to this? Answer key:

- The negativity bias is the tendency to seek out, or place more weight on, negative information, such as morally outraged content.
- The availability heuristic is the tendency to estimate the frequency or probability of something based on the ease with which examples or associations come to mind.
- By causing us to attend to morally outraged content, the negativity bias increases examples of moral outrage, which through the availability heuristic causes us to overestimate how many people are morally outraged.

### Your answer:

Availability heuristic and negativity bias work together because individuals tend to focus on negative, emotionally impactful information, and frequent exposure to this information makes it more mentally accessible.

### Feedback:

• Correct: The student correctly identifies negativity bias as one of the two key biases, though they don't provide the full definition from the answer key.

- Correct: The student correctly identifies availability heuristic as the second key bias, though they don't provide the complete definition about estimating frequency based on ease of recall.
- Correct: The student demonstrates understanding of how these biases work together - negativity bias causes focus on negative content, which increases mental accessibility, leading to overestimation through availability heuristic.

Score: 1.0

# Question 19

One form of magical contagion is when you prefer not to use things that used to belong to someone that you profoundly dislike. How can you explain this in terms of framework theories for different domains of knowledge? Answer key:

• The concept of contagion from the biological domain is incorrectly applied to the social (or: psychological, or: cultural) domain.

Your answer:

### Feedback:

• Incorrect: No answer provided

Score: 0.0

# Question 20

What distinguishes a delusional conspiracy theory from a non-delusional conspiracy theory? Answer key:

 A conspiracy theory is delusional when it is both an irrational belief and not commonly accepted. Otherwise it is a non-delusional conspiracy theory.

Your answer:

False conspiracy theories rely on fabricated or distorted evidence.

### Feedback:

• Incorrect: The student's answer focuses on evidence quality (fabricated/distorted) but misses the key distinction in the answer key, which is that delusional conspiracy theories are characterized by being both irrational beliefs AND not commonly accepted, while the student doesn't address the acceptance/belief criteria that distinguish delusional from non-delusional conspiracy theories.

Score: 0.0

During the lecture, we reviewed several cognitive and personality factors that contribute to conspiratorial thinking. Can you name three of these factors? Answer key:

• 3:Should mention at least three of the following: seeing patterns in randomness; believing paranormal phenomena; attributing agency where it does not exist; believing in simple explanations for complex events; being narcissistic; being a man; having a low level of intelligence; having a low level of analytical thinking.

#### Your answer:

### Feedback:

• Incorrect: No answer provided

Score: 0.0

# Question 22

If you quiz yourself while preparing for an exam, you are likely to give incorrect answers when you don't know the material very well yet. And then you learn by seeing the correct answer. Through which psychological mechanism can these incorrect answers interfere with learning? Answer key:

• Through source amnesia you may forget that the answer you provided was in fact incorrect, and mistake it for the correct answer. (Alternative answers: Proactive interference can cause the initial incorrect answer to interfere with the later correct answer. The continued-influence effect may be used as a general term referring to this phenomenon.)

#### Your answer:

Hindsight bias occurs when, due to unfamiliarity with the material, you develop a justification for why the correct answer is right after the fact, without truly grasping the underlying theory. Essentially, you connect the question to the right answer but lack a deep, theory-based comprehension of the topic.

#### Feedback:

• Incorrect: The student describes hindsight bias, which is not the correct mechanism. The answer key requires source amnesia (forgetting that your initial answer was incorrect and mistaking it for the correct answer) or proactive interference (initial incorrect answer interfering with later correct answer). Hindsight bias involves retrospectively feeling you 'knew it all along' after learning the correct answer, which is a different phenomenon than forgetting the source of incorrect information.

Score: 0.0

Politicians often keep repeating the same statements over and over again. In addition to the availability heuristic, through which psychological mechanism do they hope to make their message more attractive by frequently repeating it? Answer key:

• Mere exposure, which is the tendency to prefer things that we are familiar with. (Alternative answer: the illusory-truth effect.)

#### Your answer:

The phenomenon where people develop a preference for things simply because they are familiar with them.

#### Feedback:

• Correct: The student correctly identifies the mere exposure effect by describing it as developing a preference for familiar things, which matches the answer key's definition of mere exposure as the tendency to prefer things we are familiar with.

Score: 1.0

# Question 24

People often make predictions about how likely it is that something bad will happen to them. Does major depressive disorder make people less accurate at making such predictions? Answer key:

• No, people with major depressive disorder (as compared to non-depressed people) are more accurate at making such predictions, because they show a reduced tendency to be overly optimistic.

#### Your answer:

MDD causes individuals to exaggerate the chances of negative events occurring to them.

#### Feedback:

• Incorrect: The student incorrectly states that MDD causes people to exaggerate negative event probabilities, when the answer key indicates that people with MDD are actually more accurate at predictions due to reduced optimism bias, not increased pessimism.

Score: 0.0

# Question 25

In the ideal-observer model of perceptual decision making, prior beliefs are combined with sensory evidence to create a perception. That is, what you perceive is a combination of what you expect and the information that reaches your senses. What happens to the influence of prior beliefs on perception when the reliability of sensory information decreases? Answer key:

• When the reliability of sensory information decreases, perception is increasingly affected by prior beliefs. (Or: what you perceive is increasingly a matter of what you expect when the information that reaches your senses is unreliable.)

#### Your answer:

As sensory information becomes less reliable, prior beliefs become more strongly reinforced.

#### Feedback:

• Incorrect: The student incorrectly describes prior beliefs as becoming 'more strongly reinforced' rather than having increased influence on perception. The answer key requires understanding that unreliable sensory information leads to greater reliance on prior beliefs in forming perceptions, not that the beliefs themselves become reinforced.

### Score: 0.0

### Question 26

According to Kohlberg, what are three levels of moral development? Very briefly describe each level. (Each level is sometimes split up into two stages. You don't need to describe these stages.) Answer key:

- Pre-conventional Level: Focus on obeying rules to avoid punishment or gain rewards. (If the description is correct, the name of the level does not need to be mentioned.)
- Conventional Level: Focus on social norms and other people's feelings.
   (If the description is correct, the name of the level does not need to be mentioned.)
- Post-conventional Level: Focus on abstract principles and values. (If the description is correct, the name of the level does not need to be mentioned.)

#### Your answer:

Preconventional level involves focusing solely on personal benefit without considering others, Conventional level is characterized by recognizing mutual exchange and the influence of rewards and penalties, and Postconventional level reflects an internalized understanding of morality based on personal principles.

#### Feedback:

• Correct: The student correctly describes the pre-conventional level as focusing on personal benefit, which aligns with the answer key's description of obeying rules to avoid punishment or gain rewards.

- Incorrect: The student describes conventional level as 'mutual exchange and influence of rewards and penalties,' which sounds more like pre-conventional thinking. The answer key requires focus on social norms and other people's feelings.
- Correct: The student correctly describes the post-conventional level as involving internalized understanding of morality based on personal principles, which matches the answer key's focus on abstract principles and values.

Score: 0.666666666666666

# Question 27

What is a causal model (of past events), and how does it contribute to hindsight bias? Answer key:

- A causal model is a coherent narrative of how past event are related
- Events that are part of a causal model seems more inevitable than they were, thus contributing to hindsight bias

#### Your answer:

Once an event has taken place, the memory system creates a sequence of causes using available cues to account for why the event happened. Because this causal sequence is formed, the event seems more probable after the fact, since it can now be understood in this way.

### Feedback:

- Correct: The student correctly describes a causal model as a sequence
  of causes that accounts for why an event happened, which aligns with
  the answer key's definition of a coherent narrative of how past events are
  related.
- Correct: The student accurately explains how causal models contribute to hindsight bias by making events seem more probable after the fact, which corresponds to the answer key's point that events seem more inevitable than they were.

Score: 1.0

### Question 28

How does learning contribute to hindsight bias? Answer key:

• While estimating past likelihood judgments, you cannot avoid taking newly learned information into account. This is also referred to as the curse of knowledge (this term does not need to be provided).

Your answer:

When we acquire new information, it influences how we evaluate past events. It is difficult for us to separate the impact of this new knowledge on our judgment, leading us to believe that past events were more predictable than we originally thought.

#### Feedback:

• Correct: The student correctly explains that newly acquired information influences evaluation of past events and that it's difficult to separate this new knowledge from judgments, leading to overestimation of past predictability. This captures the core mechanism of hindsight bias described in the answer key.

Score: 1.0

# Question 29

Briefly describe the maximizing and satisficing decision styles. If someone scores high on the neuroticism personality trait, which decision style is he or she most likely to adopt? Answer key:

- Maximizing: trying to make the best choice
- Satisficing: making a good-enough choice
- If someone scores high on the neuroticism personality trait, he or she is most likely to adopt the maximizing decision style

### Your answer:

Maximisers prioritize finding the absolute best solution, often linked to high levels of neuroticism, while satisficers are willing to choose the first option that meets their criteria.

#### Feedback:

- Correct: The student correctly describes maximizing as prioritizing finding the absolute best solution, which aligns with 'trying to make the best choice' from the answer key.
- Correct: The student correctly describes satisficing as choosing the first option that meets their criteria, which captures the essence of 'making a good-enough choice' from the answer key.
- Correct: The student correctly identifies that maximizers are linked to high levels of neuroticism, which directly answers that high neuroticism individuals adopt the maximizing decision style.

Score: 1.0

# Question 30

Imagine that you are teaching a university course with many students. You would like all the students to actively engage with the material. But you have

only limited time and resources, which means for example that you cannot use forms of examination that require personalized (and thus time-intensive) feedback and grading. Based on the knowledge that you gained during this course, how would you approach this? (All answers that reflect serious engagement with this question will receive a point. Therefore, I suggest that you leave this question for the end!) Answer key:

• Any answer that reflects serious engagement with the question is considered correct.

#### Your answer:

I believe that personalized feedback is essential in education. With this in mind, I think it is important to provide it to at least some of the students. One possible approach could be to offer an optional assignment for the more motivated students, allowing them to receive individualized feedback (which, in my view, also helps identify those who are most likely to appreciate and benefit from it). For the other students, I find that peer feedback works fairly well. The same applies to multiple-choice exams.

### Feedback:

 Correct: The student demonstrates serious engagement with the question by acknowledging the constraint of limited resources while proposing practical solutions. They suggest a tiered approach with optional assignments for motivated students to receive personalized feedback, and recommend peer feedback and multiple-choice exams for broader assessment. The answer shows thoughtful consideration of both pedagogical principles (importance of personalized feedback) and practical constraints (limited time and resources).

Score: 1.0