Chapter 2: Perceptual Processes I: Visual and Auditory Recognition

2-1. What is perception?

a. Perception is the immediate registration of information by the sensory receptors.
b. Perception uses previous knowledge to gather and interpret the stimuli registered by the senses.
c. Perception involves only unprocessed sensory information.
d. Perception requires complex problem solving.

Ans: b Page(s): 33 Difficulty: Easy

2-2. Which of the following students provides the best, most complete definition of the term "perception"?

a. Andrew: "Perception refers to the process of converting external stimuli into electrical signals within the nervous system."
b. Marie-France: "Perception refers to the registration of visual information on the retina."
c. Marco: "Perception refers to the mental images we create without any input from the external world."
d. Sarah: "Perception uses our previous knowledge to collect and interpret sensory stimuli."

Ans: d Page(s): 33 Difficulty: Moderate

2-3. According to the introductory discussion about perceptual processes,

a. humans have relatively primitive perceptual processes, compared to models created by artificial intelligence.
b. although perception appears to be straightforward, it actually requires more cognitive effort than tasks such as problem solving.
c. unlike other cognitive tasks, perception requires only bottom-up processing.
d. perception requires both information from the stimulus and knowledge about previous perceptual experiences.

Ans: d Page(s): 33 Difficulty: Moderate

2-4. The identification of a complex arrangement of sensory stimuli is known as

a. sensation.
b. recognition by components.
c. object recognition.
d. connectionism.

Ans: c Page(s): 33 Difficulty: Easy

2-5. Which of the following is the best example of object recognition?

a. seeing a particular visual stimulus and mentally rotating it
b. seeing a particular visual stimulus and identifying it as the letter M
c. solving a complex reasoning problem
d. switching your attention from one conversation to another

Ans: b Page(s): 33 Difficulty: Moderate

2-6. Right now, the words in this sentence are being registered on the retina of your eye. This representation on your retina is called

a. sensory memory.
b. the template.
c. the proximal stimulus.
d. the distal stimulus.

Ans: c Page(s): 34 Difficulty: Easy

2-7. You are now reading a sentence on an examination. The actual stimulus (the words on the piece of paper) is called

a. the distal stimulus.
b. the proximal stimulus.
c. the geon.
d. the template.

Ans: a Page(s): 34 Difficulty: Easy

2-8. Suppose that you hear another student turning a page of an exam. The representation of that noise by the receptors in your auditory system is called

a. iconic memory.
b. an illusory contour.
c. the proximal stimulus.
d. the distal stimulus.

Ans: c Page(s): 34 Difficulty: Easy

2-9. Which of the following statements about object recognition is correct?

a. Visual information is first processed in the primary visual cortex, but it is eventually stored in the retina.
b. In general, we need at least one second to recognize an object.
c. The primary visual cortex is responsible for identifying complex objects; in contrast, other portions of the brain identify lines and simple shapes.
d. Regions of the cortex beyond the visual cortex are active when we identify complex objects.

Ans: d Page(s): 35 Difficulty: Moderate

2-10. According to the gestalt psychology approach to visual perception,

a. when we look at an object for the first time, we see a random arrangement of stimuli.
b. the distal stimulus is more important than the proximal stimulus.
c. we tend to see well-organized patterns, rather than random-looking stimuli.
d. we first extract the template, and then later we extract the geon.

Ans: c Page(s): 36 Difficulty: Moderate

2-11. Suppose that a psychologist loans you an art book and says that the book includes some interesting ambiguous figure-ground pictures. You should expect to see

a. a random arrangement of black-and-white figures.
b. a photo of real-life figures, rather than black-and-white shapes.
c. a picture in which a specific region is the central figure one moment, but this region becomes the background the next moment.
d. a picture that has at least two subjective contours.

Ans: c Page(s): 36 Difficulty: Moderate

2-12. Suppose that you are looking at an advertisement that features a large figure. At first, you think you are looking at a star. However, when you look closer, you realize that some of the star's edges are not actually shown on the paper, yet they seem to be physically present. This illusion is called

a. a template.
b. an example of bottom-up processing.
c. a distinctive feature.
d. a subjective contour.

Ans: d Page(s): 37 Difficulty: Easy

2-13. Which of the following students provides the best explanation for why we sometimes perceive illusory contours:

a. Marta: "Some cells respond to illusory contours, and then our visual system organizes an explanation that makes sense of the visual input."
b. José: "The phenomenon can be traced to top-down processing; bottom-up processing does not operate here."
c. June: "The research suggests that the McGurk phenomenon can best explain the perception of illusory contours."
d. Moises: "The retina contains specialized receptors that are directly connected to the visual cortex."

Ans: a Page(s): 37 Difficulty: Difficult

2-14. According to the discussion of template matching in visual recognition,

a. template matching is currently the most popular theory.
b. template models work well for pattern recognition in some computers, but not for most complex object recognition tasks in humans.
c. template-matching theories are more flexible than feature-analysis models.
d. subjective contours are especially helpful when we try to use template matching.

Ans: b Page(s): 38 Difficulty: Moderate

2-15. The discussion of the template model of object recognition pointed out that

a. this model is now favored in explaining complex recognition tasks, although it cannot account for simpler tasks.
b. this model is considered to be the most flexible of the current approaches.
c. this model would have difficulty explaining how we can recognize handwritten letters.
d. this model provides the best account for the development of object recognition during childhood.

Ans: c Page(s): 38-39 Difficulty: Moderate

2-16. The template-matching theory has difficulty explaining visual object recognition. One problem with the theory is that

a. neuroscience research has determined that the human brain has an unlimited supply of templates.
b. our pattern-recognition abilities are much more flexible than this theory proposes.
c. the theory suggests that the templates in the human brain are very imprecise.
d. the theory only operates for complex objects, yet we can easily recognize simple objects.

Ans: b Page(s): 38-39 Difficulty: Moderate

2-17. The template model of object recognition would have the most difficulty explaining

a. how people recognize rotated images.
b. how computers recognize a standardized set of numbers.
c. how people can recognize an isolated letter, without any word context.
d. how people recognize neatly printed numbers.

Ans: a Page(s): 38-39 Difficulty: Easy

2-18. The feature-analysis model of object recognition argues that

a. recognition involves a match between the overall, holistic shape of an item and the gestalt features stored in memory.
b. recognition involves detecting specific characteristics of the stimulus.
c. the match between the stimulus and the template must be exactly correct.
d. we need to explain how people are able to recognize the arrangement of objects in a scene.

Ans: b Page(s): 39 Difficulty: Moderate

2-19. The feature-analysis models

a. can only explain letter recognition; they cannot account for the recognition of other two-dimensional visual stimuli such as triangles or squares.
b. argue that each visual stimulus is unique, with no features in common with other visual stimuli.
c. propose that each visual stimulus must be compared with an idealized representation of an entire stimulus in memory.
d. state that we differentiate among stimuli in terms of a limited number of specific characteristics.

Ans: d Page(s): 39 Difficulty: Difficult

2-20. Feature-analysis models

a. state that we store a template for each letter of the alphabet.
b. are less popular than other models.
c. are contradicted by physiological evidence.
d. make predictions about why an R would be confused with a P, rather than a W.

Ans: d Page(s): 39-41 Difficulty: Moderate

2-21. You have no difficulty distinguishing between the letters O and W, but it takes longer to distinguish between the letters O and Q. Which theory of object recognition does this support?

a. template-matching theory
b. subjective-contour theory
c. feature-analysis models
d. recognition-by-components models

Ans: c Page(s): 39-41 Difficulty: Moderate

2-22. Neuroscience research has been conducted on the response of individual neurons to lines that have different orientations. The results of this research are most compatible with the _____ approach to object recognition.

a. feature-analysis
b. template
c. parallel distributed processing
d. recognition-by-components

Ans: a Page(s): 41 Difficulty: Moderate

2-23. Which of the following is the best example of a geon?

a. a template for the letter K, as it is stored in memory
b. a straight, vertical, 2-dimensional line
c. a 3-dimensional cylinder
d. the comparison process used to differentiate a template from a distinctive feature

Ans: c Page(s): 41-42 Difficulty: Easy

2-24. The recognition-by-components theory argues that we recognize an object by

a. analyzing the arrangement of simple 3-dimensional shapes that form the object.
b. comparing each object to the idealized version of that object, as stored in long-term memory.
c. registering each major line, curve, and angle of an object.
d. perceiving the overall form of an object as one complete shape or gestalt.

Ans: a Page(s): 41-42 Difficulty: Difficult

2-25. Imagine that you attend a lecture given by a guest lecturer. He emphasizes that people can recognize complex shapes—such as animals and machinery—in terms of arrangements of basic 3-D shapes. This lecturer probably would be a strong supporter of which of the following approaches to object recognition?

a. top-down processing
b. template-matching theory
c. feature-analysis theory
d. recognition-by-components theory

Ans: d Page(s): 41-42 Difficulty: Moderate

2-26. According to the research on the recognition-by-components theory,

a. the theory is especially accurate in its ability to explain how we perceive moving objects.
b. the theory has difficulty explaining how we recognize three-dimensional objects, though it explains how we can perceive letters of the alphabet.
c. the theory cannot account for the performance of people who have visual deficits.
d. the theory needs to include a mechanism for recognizing objects seen from an unusual point of view, or else it would be inadequate.

Ans: d Page(s): 42-43 Difficulty: Difficult

2-27. Bottom-up processing

a. is often called conceptually driven processing.
b. describes the influence of expectations upon object recognition.
c. emphasizes the importance of sensory stimuli in object recognition.
d. explains why we are able to recognize words more easily when they appear in sentences, rather than alone.

Ans: c Page(s): 44 Difficulty: Easy

2-28. Bottom-up processing

a. focuses on the contribution of the stimulus to object recognition.
b. emphasizes that we can pay attention to several objects simultaneously.
c. emphasizes that our higher mental processes facilitate object recognition.
d. accounts for the phenomenon known as change blindness.

Ans: a Page(s): 44 Difficulty: Moderate

2-29. If you were to study top-down processing as it applies to smell, which of the following topics would be most relevant?

a. Whether people recognize a lemon fragrance more readily when they see a photo of a lemon than when they see a photo of a rose.
b. Whether the chemical structure of lemon-fragrance molecules is substantially different from the chemical structure of rose-fragrance molecules.
c. Whether the receptors in the nasal passages respond differently to lemon and rose fragrances.
d. Whether the brain stores lemon and rose fragrances in different locations.

Ans: a Page(s): 44 Difficulty: Difficult

2-30. Suppose that you walk past the home of your friend, John. Standing in front of the house is someone who somewhat resembles your friend, so you shout, "Hi, John!" To your embarrassment, it is not John but his younger brother—substantially shorter and with darker hair. This error can be traced to

a. serial processing.
b. parallel processing.
c. bottom-up processing.
d. top-down processing.

Ans: d Page(s): 44-45 Difficulty: Moderate

2-31. Your friend Sophie said that she would call you at 8:00 p.m. When the phone rings at 8:00 p.m., you answer and say "Oh, hi, Sophie." Then you realize that the caller is a different friend with a similar voice, but somewhat higher pitched. Your initial error can be explained by

a. the change-blindness effect.
b. top-down processing.
c. bottom-up processing.
d. recognition-by-components theory.

Ans: b Page(s): 44-45 Difficulty: Moderate

2-32. According to the discussion of object recognition,

a. the bottom-up approach emphasizes the importance of previous information in processing new stimuli.
b. top-down processing emphasizes that it is most efficient to begin at the top of a object that must be recognized.
c. top-down processing does not play a major role in object recognition.
d. object recognition must involve both top-down and bottom-up processes.

Ans: d Page(s): 45 Difficulty: Moderate

2-33. You recognize the letter n more quickly in the word pattern than when it appears by itself. This is an example of

a. top-down processing.
b. bottom-up processing.
c. a template for the letter n.
d. a recognition module.

Ans: a Page(s): 46 Difficulty: Easy

2-34. You can identify a letter more accurately when it appears in a word than when it does not. This phenomenon is called the

a. letter superiority effect.
b. bottom-up effect.
c. word superiority effect.
d. change blindness effect.

Ans: c Page(s): 46 Difficulty: Moderate

2-35. According to the word superiority effect,

a. we have trouble noticing when one of the letters in a word disappears from the stimulus.
b. we can recognize a letter faster and more accurately when it is part of a word, rather than standing alone.
c. we can recognize an unfamiliar word more quickly than an isolated letter of the alphabet.
d. bottom-up processing is more helpful than top-down processing.

Ans: b Page(s): 46 Difficulty: Moderate

2-36. Which of the following examples would be most comparable to the word superiority effect if we were to apply this phenomenon to hearing?

a. You can identify a particular sound more readily if it is embedded in a word than if you hear that same auditory stimulus in isolation.
b. If you are right-handed, you can identify a spoken word more readily if it is spoken in your right ear, rather than your left ear.
c. You can hear a spoken word more accurately when you see the written pattern at the same time, but this does not apply to smaller segments, such as individual letters.
d. Short words are recognized and remembered more readily than long words in a conversation.

Ans: a Page(s): 46 Difficulty: Difficult

2-37. Your textbook discussed in some detail a study by Rueckl and Oden (the "bears/beans" study) that manipulated both the features of a letter within a word and the context in which the word appeared. This study demonstrated that

a. both bottom-up and top-down processing operate.
b. under appropriate conditions, people only pay attention to distinctive features.
c. sensory memory can be extended when a word appears in context.
d. top-down processing inevitably leads to more accurate pattern recognition.

Ans: a Page(s): 46-47 Difficulty: Difficult

2-38. The term “change blindness” refers to the observation that

a. people with poor eyesight tend not to notice that a visual object is rotating.
b. people often fail to see that an object in a scene has changed.
c. people often fail to notice that a new object has suddenly appeared in a scene.
d. infants are unable to create a gestalt in a subjective-contour figure.

Ans: b Page(s): 48 Difficulty: Moderate

2-39. Suppose that you are watching a movie. Two men are talking, and the camera focuses on a man in a blue shirt, with long sideburns. The focus shifts to the other man. Then it returns to the man in the blue shirt—but now his sideburns are about an inch shorter. If you fail to notice that he looks different, you are exhibiting

a. bottom-up processing.
b. change blindness.
c. the principle that face recognition is "special."
d. the recognition-by-components approach.

Ans: b Page(s): 48-49 Difficulty: Moderate

2-40. Change blindness and inattentional blindness are similar because both of these phenomena

a. demonstrate the importance of top-down processing.
b. emphasize the importance of bottom-up processing.
c. illustrate categorical perception.
d. provide support for the recognition-by-components approach to perception.

Ans: a Page(s): 49-50 Difficulty: Moderate

2-41. Suppose that a close friend is telling you about a very emotional experience she has just had. You are paying such close attention to her that you fail to notice that some strangers have just entered the room. This incident is an example of

a. change blindness.
b. illusory contour.
c. inattentional blindness.
d. a gestalt.

Ans: c PAGES 49-50 Difficulty: Moderate

2-42. Many researchers argue that face perception is "special"; we process faces in a different way than we process other visual stimuli. According to this perspective,

a. we process the color of human faces before we process their shape.
b. unlike other objects, information about faces does not pass through the primary visual cortex.
c. we recognize faces in terms of their entire shape, rather than in terms of their isolated features.
d. because faces are so complex, we take a long time to recognize that an object is a face; in contrast, we recognize simpler objects much more quickly.

Ans: c Page(s): 51-52 Difficulty: Difficult

2-43. Suppose that you are looking at a simple geometric design. If you were to perceive it <u>holistically</u> you would

a. first analyze it into parts, and then assemble the parts into a whole.
b. use a template that precisely matches the shape of the entire stimulus.
c. recognize it in terms of its overall structure and shape.
d. compare it with a set of features stored in memory.

Ans: c Page(s): 52 Difficulty: Moderate

2-44. Which of the following students' statements best summarizes the research on face perception?

a. Eduardo: "Faces are perceived in the same fashion as other similarly complex objects."
b. Sarita: "We process faces by organizing the component parts into a holistic pattern; for other objects, we are more likely to process isolated features."
c. Akiko: "We perceive faces in a more serial fashion, processing one feature at a time, for other objects, features are processed simultaneously."
d. Nelson: "We process faces in a bottom-up fashion; we process other objects in a top-down fashion."

Ans: b Page(s): 51-52 Difficulty: Difficult

2-45. Imagine that you are reading an article on face recognition. The article argues that people use holistic processing when they look at a face. Which of the following sentences would you be most likely to see in this article?

a. "People with prosopagnosia are especially likely to use holistic processing."
b. "Brain lesions typically encourage the use of holistic processing in face recognition."
c. "People tend to perceive faces in terms of a gestalt, rather than separate elements."
d. "Infants tend to use holistic processing, whereas adults use gestalt processing."

Ans: c Page(s): 51-52 Difficulty: Moderate

2-46. A person with prosopagnosia would be likely to

a. perform better than other people on a change-blindness test.
b. have difficulty recognizing fruits and vegetables.
c. fail to recognize letters of the alphabet.
d. have trouble recognizing faces.

Ans: d Page(s): 52 Difficulty: Easy

2-47. When a study has high ecological validity,

a. people tend to receive similar scores on two different versions of a relevant test.
b. people typically make more errors than if the test is low in ecological validity.
c. at least two researchers recorded the answers supplied by the participants.
d. the setting for the study is similar to a setting found in the real world.

Ans: d Page(s): 53 Difficulty: Easy

2-48. Kemp and his colleagues (1997) examined whether cashiers in a supermarket could detect whether shoppers showed them a correct photo I.D. According to this research,

a. the cashiers were accurate more than 98% of the time.
b. the cashiers were accurate less than 25% of the time.
c. more than 60% of the time, the cashiers failed to detect that the shopper was carrying the photo I.D. of another similar-looking person.
d. the cashiers were highly accurate for individuals of their own gender, but much less accurate for individuals of the other gender.

Ans: c Page(s): 53 Difficulty: Difficult

2-49. Chapter 2 discusses a study by Burton and his colleagues on people's ability to identify a face that is shown in a video security system. According to the results of this study,

a. people are especially likely to be confident that they correctly identified a person's face if they are familiar with this person.
b. people are surprisingly accurate in identifying the faces of both familiar and unfamiliar people.
c. people are surprisingly inaccurate in identifying the faces of both familiar and unfamiliar people.
d. compared to other people, police officers are more confident that they are correct on this face-recognition task.

Ans: a Page(s): 53-54 Difficulty: Difficult

2-50. Which of the following students provides the best summary of the research about using a video security system to recognize faces?

a. Alex: "Humans are skilled at face recognition; with these video systems, their face recognition is even more accurate."
b. Magali: "With these video systems, people are accurate in recognizing familiar faces, but not unfamiliar faces."
c. Emmanuel: "With these video systems, people are accurate in recognizing unfamiliar faces, but not familiar faces."
d. Rose: "Unfortunately, the videos are so blurry that people have difficulty recognizing both familiar and unfamiliar faces."

Ans: b Page(s): 53-54 Difficulty: Moderate

2-51. Chapter 2 discussed individual differences in people's ability to judge whether two faces were similar or different. The data on recognition accuracy suggests that people with schizophrenia.

a. are significantly more accurate than people in a control group.
b. do not differ substantially from people in a control group.
c. are significantly less accurate than people in a control group, but they respond at about the same speed.
d. are significantly less accurate than people in a control group, and they also respond more slowly.

Ans: d PAGES 54-55 Difficulty: Difficult

2-52. Chapter 2 discussed individual differences in the ability to recognize another person's facial expressions. The research on this task showed that people with schizophrenia are more likely than people in a control group

a. to respond quickly.
b. to make errors.
c. to use holistic processing.
d. to use a facial-expression template.

Ans: b Page(s): 54-55 Difficulty: Moderate

2-53. The term "phoneme" refers to

a. the written version of a basic speech sound.
b. the basic unit of spoken language.
c. the meaning of a word, within the context of a sentence.
d. the grammatical aspects of a word.

Ans: b Page(s): 56 DIFICULTY: Easy

2-54. The boundaries between words in spoken language

a. are just as distinctive as the boundaries between words in written language.
b. are more distinctive in English than in other languages.
c. are often missing, so that two words are not separated by an actual pause.
d. are difficult for children to perceive, though adults rarely make perceptual errors.

Ans: c Page(s): 56 Difficulty: Easy

2-55. According to the research on word boundaries in speech,

a. phonemic restoration helps us detect word boundaries.
b. listeners are typically accurate in detecting word boundaries, even when there is no actual gap.
c. most people are clearly aware that speakers tend to run their words together
d. the boundary between spoken words is even more clear-cut than the boundary between printed words.

Ans: b Page(s): 56 Difficulty: Moderate

2-56. According to the discussion of phoneme perception,

a. this task is not very challenging because of context cues.
b. this task is not very challenging because each phoneme is pronounced in such a standard fashion.
c. this task is challenging because the English language has over 200 distinct phonemes.
d. this task is challenging because of the variability in speakers' pronunciation of phonemes.

Ans: d Page(s): 56-57 Difficulty: Moderate

2-57. Studies of speech perception show that

a. speech sounds are transmitted one at a time, just as letters follow one another in writing.
b. when the first phoneme of a word is being spoken, the mouth prepares to pronounce the next phoneme in the word.
c. a phoneme's sound remains constant, no matter which phonemes precede and follow it.
d. context is of little use in helping people determine the identity of a missing phoneme.

Ans: b Page(s): 57 Difficulty: Moderate

2-58. The o sound in the word dog influences the position of your mouth when you pronounce the remainder of the word. This phenomenon is called

a. the McGurk effect.
b. categorical perception.
c. phonemic restoration.
d. coarticulation.

Ans: d Page(s): 57 Difficulty: Easy

2-59. Coarticulation is the tendency

a. for phoneme pronunciation to vary slightly, depending on the surrounding phonemes.
b. to read more than one word at a time.
c. to transmit meaning as well as phoneme information in any given English sentence.
d. to use visual cues to help you interpret phonemes.

Ans: a Page(s): 57 Difficulty: Moderate

2-60. Which of the following students provides the best summary about phoneme pronunciation, discussed in the section on speech perception?

a. George: "Humans manage to perceive the phoneme intended by the speaker, even though phoneme pronunciation is quite variable."
b. Angela: "Humans tend to perceive phonemes inaccurately, but top-down processing helps to increase their accuracy."
c. Jakob: "Humans have great difficulty with phoneme perception, because most speakers have sloppy phoneme pronunciation."
d. Galit: "Each phoneme is pronounced in a consistent fashion, so that speech perception is remarkably accurate."

Ans: a Page(s): 57 Difficulty: Difficult

2-61. Suppose that you are listening to a lecture, and another student's chair squeaks loudly during the middle of a word, so that the middle of that word cannot be heard. Nonetheless, you do not detect any interruption in the word. This example is closest to which of the following cognitive phenomena?

a. phonemic restoration
b. coarticulation
c. bottom-up processing
d. the recognition-by-components approach

Ans: a Page(s): 57-58 Difficulty: Moderate

2-62. According to the discussion of phonemic restoration,

a. if we fail to hear a particular phoneme in a word, we won't be able to identify the word.
b. phonemic restoration makes use of top-down processing.
c. phonemic restoration is typically caused by variations in phoneme pronunciation.
d. phonemic restoration is typically caused by coarticulation.

Ans: b Page(s): 57-58 Difficulty: Moderate

2-63. Your textbook states that phonemic restoration is a kind of illusion. This statement means that

a. we hear boundaries between words, even when a physical boundary does not really exist.
b. we should avoid using context, so that we can perform more accurately during speech perception.
c. we make too much use of bottom-up processing.
d. we think we hear a speech sound, even if it is not present in the distal stimulus.

Ans: d Page(s): 58 Difficulty: Difficult

2-64. Research on context and speech perception has demonstrated that

a. people are amazingly accurate in being able to identify missing speech sounds in a sentence.
b. people often do not notice a missing sound that occurs within the context of a sentence.
c. speech perception is almost entirely a bottom-up process.
d. when a word in a sentence is mispronounced, people cannot understand the sentence.

Ans: b Page(s): 58 Difficulty: Moderate

2-65. Which of the following students best summarizes the information about visual cues and speech perception?

a. Dawan: "Adults who have normal hearing seldom pay full attention to visual cues, even though these cues are helpful."
b. Cheryl: "Surprisingly, adults can perceive speech just as accurately without visual cues as they can with visual cues."
c. Ralph: "Adults seem to be able to distinguish among the visual cues associated with the phonemes, but they do not link these cues with the auditory stimuli."
d. Tiffany: "Although children pay attention to these visual cues, adults do not."

Ans: a Page(s): 58-59 Difficulty: Difficult

2-66. Suppose that you are watching a television talk show. The picture on your TV set is clear, but the sound is somewhat muffled. If the visual information helps you interpret some of the words that the talk-show host is saying, you are demonstrating

a. prosopagnosia.
b. the phonetic module.
c. coarticulation.
d. the McGurk effect.

Ans: d Page(s): 59 Difficulty: Moderate

2-67. According to your textbook, the McGurk effect

a. demonstrates that visual information can influence our speech perception.
b. is similar to an illusory contour, except that it occurs during speech perception.
c. illustrates that we often think we hear a boundary between words, even when the words are run together.
d. shows that phonemes are not pronounced in a consistent fashion.

Ans: a Page(s): 59 Difficulty: Moderate

2-68. The research on speech perception demonstrates that

a. each phoneme has a unique but consistent pronunciation.
b. context can be used to identify a missing vowel, but not a missing consonant.
c. people use visual cues from the speaker's mouth in order to perceive an ambiguous sound.
d. listeners typically perceive a solid stream of language, without any breaks in the stream.

Ans: c Page(s): 59 Difficulty: Moderate

2-69. According to the special mechanism approach to speech perception,

a. we perceive speech best in the motor cortex of the brain.
b. context is particularly important in speech perception.
c. we perceive speech the same way we perceive other auditory stimuli.
d. speech perception does not rely on general cognitive functions.

Ans: d Page(s): 60 Difficulty: Moderate

2-70. The theorists who argue for a special mechanism approach to speech perception emphasize that humans have a special-purpose portion of the brain that makes speech perception easier. They call this special mechanism a

a. phonemic restoration unit.
b. coarticulation device.
c. phonetic module.
d. categorical perception module.

Ans: c Page(s): 60 Difficulty: Moderate

2-71. Suppose that you are reading a journal article that supports the "special mechanism approach" to speech perception. Which of the following statements would you be most likely to see?

a. Humans are born with a special device that helps them perceive speech sounds.
b. Humans can perceive speech sounds especially well when the sounds are accompanied by music.
c. Speech perception operates in the same way as the recognition of written words.
d. We can remember spoken sentences better than printed sentences.

Ans: a Page(s): 60 Difficulty: Moderate

2-72. The theorists who favor a general mechanism approach propose that speech perception can be explained by

a. the same kind of learning mechanisms that humans use in acquiring other cognitive skills.
b. an innate ability to acquire language.
c. a neural unit in the temporal lobe of the cortex that is "programmed" shortly before birth.
d. listeners' skills in coordinating phonemes with the lip position of a speaker.

Ans: a Page(s): 60-61 Difficulty: Moderate

2-73. If you favor the general mechanism approach to speech perception, you would argue that

a. speech perception is a skill that humans learn.
b. humans have a special phonetic module that handles all general speech perception tasks.
c. the McGurk effect does not support the general mechanism approach, but most other research supports this approach.
d. people use categorical perception when listening to a language sound; they do not use categorical perception on other cognitive tasks.

Ans: a Page(s): 60-61 Difficulty: Difficult

2-74. The "general mechanism approach" to speech perception argues that

a. we first obtain a general idea about a spoken message, and then we fill in the specific details.
b. we use similar processes for both speech perception and other auditory perception tasks.
c. learning does not play a major role in speech perception.
d. children are born with a general understanding about speech, and they fill in specific information as they grow older.

Ans: b Page(s): 60-61 Difficulty: Moderate

2-75. What can we conclude about the two major explanations for speech perception?

a. Humans show categorical perception for nonspeech sounds, which argues against a phonetic module approach.
b. Humans show categorical perception for nonspeech sounds, which argues for a phonetic module approach.
c. Humans cannot use visual cues as aids to the perception of phonemes, which argues against a general mechanism approach.
d. Infants use a general mechanism approach, whereas adults use a phonetic module approach.

Ans: a Page(s): 61 Difficulty: Difficult

2-76. Which of the following students provides the best overview about the research on theories of speech perception, as discussed in Chapter 2?

a. Kaitlin: "Because speech is important to human survival, people have a specialized brain structure that helps them decode speech sounds."
b. Anastazia: "The research on categorical perception demonstrates that the special mechanism approach to speech perception is correct."
c. Samaria: "In general, most theorists believe that the human nervous system processes speech sounds in the same way it processes nonspeech sounds."
d. Jared: "The research on the McGurk effect demonstrates that the special mechanism approach to speech perception is correct."

Ans: c Page(s): 60-61 Difficulty: Difficult