5-06 · 5-2 동물의 마음과 사회
05 생명과 자연 · 교재 p.121

2027학년도 6월 모평 21번

2026년 6월 시행 · 한국교육과정평가원

In fact, scientists attributing consciousness to any animal is so recent that the internet is older. In 1976 a zoologist named Donald Griffin published The Question of Animal Awareness, a book arguing that animal cognition ought to be taken seriously. He and a colleague had been responsible in 1944 for discovering that bats navigate by echolocation. Now, after a lifetime spent watching those creatures, he became convinced they had inner worlds. They had _____, he said, or the ability to change their behavior as external circumstances changed, a hallmark of true intelligence. He'd watched bats develop clever techniques for finding food; they could clearly make decisions on the fly, and exhibited many of the same problem-solving abilities as humans did. Animal thought and reason ought to be seriously studied, he argued. After all, despite the flourishing of neuroscience, no one had yet found any part of the brain unique to humans that might be responsible for this hallowed "consciousness." Wasn't it time to give up the ghost?

1. 빈칸 추론 윗글의 빈칸에 들어갈 말로 가장 적절한 것은?

① flexible behavior
② fixed instincts
③ perfect memories
④ human-like language
⑤ a sense of humor

2. 요지 윗글의 요지로 가장 적절한 것은?

① 동물의 의식에 대한 과학적 관심은 매우 오래되었다.
② 박쥐의 반향정위는 1976년에 처음 발견되었다.
③ 신경과학은 인간에게만 있는 의식 담당 부위를 찾아냈다.
④ 그리핀은 박쥐를 관찰한 끝에 동물에게도 내면 세계가 있다고 보고 동물의 인지를 진지하게 연구해야 한다고 주장했다.
⑤ 동물의 사고는 인간의 사고와 전혀 다르다.

2026학년도 6월 모평 31번

2025년 6월 시행 · 한국교육과정평가원

The human psychology and education communities (as well as some animal researchers!) have been against ① referring to "teaching" when describing social learning in animals, mainly because teaching implies a level of intentionality on the part of the model that is difficult ② to measure in animals. Nonetheless, there has been a movement within the animal cognition community to say that animals can, in fact, teach one another. For example, skilled ants engage in a behavior called tandem running, in which they ③ touch their bodies to the body of a novice ant as they lay down chemical trails, presumably to assist the newcomer with route learning. Killer whales also repeat the same seal hunting technique in front of their offspring, sometimes without even killing the seal, ④ leading researchers to ask why they would repeatedly catch and release a seal if they were not planning to eat it. Considering the amount of energy they'd have to ⑤ expending, there would need to be a good reason, and that reason might be teaching.

1. 어법 윗글의 밑줄 친 부분 중, 어법상 틀린 것은?

① ② ③ ④ ⑤

2. 주제 윗글의 주제로 가장 적절한 것은?

① evidence suggesting that some animals may teach one another
② why animals cannot learn from each other
③ how killer whales choose their prey
④ the chemical structure of ant trails
⑤ methods for measuring intentions in humans

2025학년도 6월 모평 35번

2024년 6월 시행 · 한국교육과정평가원

Avian song learning occurs in two stages: first, songs must be memorized and, second, they must be practiced. In some species these two events overlap, but in others memorization can occur before practice by several months, providing an impressive example of long-term memory storage. The young bird's initial efforts to reproduce the memorized song are usually not successful. These early songs may have uneven pitch, irregular tempo, and notes that are out of order or poorly reproduced. However, sound graphs of songs recorded over several weeks or months reveal that during this practice period the bird fine-tunes his efforts until he produces an accurate copy of the memorized template. This process requires _____; birds are unable to reproduce memorized songs if they are deafened after memorization but before the practice period.

1. 빈칸 추론 윗글의 빈칸에 들어갈 말로 가장 적절한 것은?

① watching other birds
② hearing oneself sing
③ a quiet environment
④ several teachers
⑤ memorizing new songs every day

2. 제목 윗글의 제목으로 가장 적절한 것은?

① Why Birds Sing Only in Spring
② Memorize, Then Practice: How Young Birds Learn to Sing
③ Deaf Birds Sing Better
④ Songs That Never Change
⑤ The Shortest Memory in Nature

2023학년도 수능 33번

2022년 11월 시행 · 대학수학능력시험

The entrance to a honeybee colony, often referred to as the dancefloor, is a market place for ① information about the state of the colony and the environment outside the hive. Studying interactions on the dancefloor provides us with a number of illustrative examples of how individuals changing their own behavior in response to local information allow the colony to ② regulate its workforce. For example, upon returning to their hive honeybees that have collected water search out a receiver bee to unload their water to within the hive. If this search time is ③ short then the returning bee is more likely to perform a waggle dance to recruit others to the water source. Conversely, if this search time is ④ long then the bee is more likely to give up collecting water. Since receiver bees will only accept water if they require it, either for themselves or to pass on to other bees and brood, this unloading time is ⑤ unrelated with the colony's overall need of water. Thus the individual water forager's response to unloading time (up or down) regulates water collection in response to the colony's need.

1. 어휘 윗글의 밑줄 친 부분 중, 문맥상 낱말의 쓰임이 적절하지 않은 것은?

① ② ③ ④ ⑤

2. 요지 윗글의 요지로 가장 적절한 것은?

① 꿀벌은 춤을 통해서만 물의 위치를 알린다.
② 수용 벌은 필요 없어도 모든 물을 받아들인다.
③ 개별 벌이 하역 시간이라는 지역 정보에 반응함으로써 군집 전체의 물 수집이 조절된다.
④ 물 수집량은 여왕벌의 명령으로 결정된다.
⑤ 하역 시간이 길수록 꿀벌은 더 많은 동료를 모은다.

2025학년도 수능 37번

2024년 11월 시행 · 대학수학능력시험

Watch the birds in your backyard. If one bird startles and flies off, others will follow, not waiting around to assess whether the threat is real. They have been infected by emotional contagion. In a long-term research project that Marc did with some of his students on patterns of antipredatory scanning by western evening grosbeaks, they found that birds in a circle showed more coordination in scanning than did birds who were feeding in a line. The birds in a line, who could only see their nearest neighbor, not only were less coordinated when scanning, but also were more nervous, changing their body and head positions significantly more than grosbeaks in a circle, where it was possible for each grosbeak to see every other grosbeak. Marc wondered whether the birds in line were more fearful because _____. Emotional contagion would have been impossible for individual grosbeaks in the linear array except with their nearest neighbors.

1. 빈칸 추론 윗글의 빈칸에 들어갈 말로 가장 적절한 것은?

① they had less food to eat
② they were larger than the others
③ they were closer to predators
④ they didn't know what their flockmates were doing
⑤ they were younger and less experienced

2. 주제 윗글의 주제로 가장 적절한 것은?

① the best foods for backyard birds
② why birds prefer to feed in lines
③ how predators hunt birds in circles
④ the singing patterns of evening grosbeaks
⑤ how seeing flockmates affects emotional contagion and vigilance in birds

2023학년도 6월 모평 39번

2022년 6월 시행 · 한국교육과정평가원

The dynamics of collective detection have an interesting feature. Which cue(s) do individuals use as evidence of predator attack? In some cases, when an individual detects a predator, its best response is to seek shelter. Departure from the group may signal danger to nonvigilant animals and cause what appears to be a coordinated flushing of prey from the area. Studies on dark-eyed juncos (a type of bird) support the view that nonvigilant animals attend to departures of individual group mates but that the departure of multiple individuals causes a greater escape response in the nonvigilant individuals. This makes sense from the perspective of information reliability. If one group member departs, it might have done so for a number of reasons that have little to do with predation threat. If nonvigilant animals escaped each time a single member left the group, they would frequently respond when there was no predator (a false alarm). On the other hand, when several individuals depart the group at the same time, _____.

1. 빈칸 추론 윗글의 빈칸에 들어갈 말로 가장 적절한 것은?

① the group is probably moving to a new feeding site
② a true threat is much more likely to be present
③ the departure is likely to be a false alarm
④ the remaining animals should stay still
⑤ a predator has already left the area

2. 제목 윗글의 제목으로 가장 적절한 것은?

① Why Birds Ignore Their Group Mates
② The Benefits of Living Alone
③ False Alarms Keep Animals Safe
④ Many Leave at Once: Reading Reliable Danger Signals in Groups
⑤ Juncos: The Bravest Birds

정답 및 해설

5-06 **1.**① **2.**④ · 5-07 **1.**⑤ **2.**① · 5-08 **1.**② **2.**② · 5-09 **1.**⑤ **2.**③ · 5-10 **1.**④ **2.**⑤ · 5-11 **1.**② **2.**④

5-06 · 2027학년도 6월 모평 21번
1. ① 뒤에 '외부 상황이 바뀔 때 행동을 바꾸는 능력'이라고 풀어 설명하므로 유연한 행동이 알맞다.
2. ④ 그리핀은 박쥐의 유연한 행동과 문제 해결 능력을 근거로 동물의 사고와 의식을 진지하게 연구해야 한다고 주장했다.

5-07 · 2026학년도 6월 모평 31번
1. ⑤ the amount of energy (that) they'd have to expend에서 have to 뒤에는 동사원형이 와야 한다. ⑤ expending → expend.
2. ① 개미의 탠덤 러닝, 범고래의 사냥 시범 같은 예를 들어 동물도 서로 가르칠 수 있다는 움직임을 소개한다.

5-08 · 2025학년도 6월 모평 35번
1. ② 기억 후 연습 전에 청각을 잃으면 기억한 노래를 재현하지 못하므로, 연습 과정에는 자신의 노래를 듣는 것이 필요하다.
2. ② 새의 노래 학습은 암기와 연습의 두 단계로 이루어지며, 연습에서는 자신의 소리를 들으며 기억한 원형에 맞춰 다듬는다는 글이다.

5-09 · 2023학년도 수능 33번
1. ⑤ 수용 벌은 필요할 때만 물을 받으므로 하역 시간은 군집의 물 필요량과 '상관관계가 있다'. ⑤ unrelated → correlated.
2. ③ 물을 넘길 수용 벌을 찾는 시간이 짧으면 춤으로 동료를 모으고 길면 수집을 멈추는 식으로, 개체의 반응이 군집의 필요를 조절한다는 것이 요지다. ⑤는 글과 반대다.

5-10 · 2025학년도 수능 37번
1. ④ 한 줄로 먹는 새는 가장 가까운 이웃만 볼 수 있었으므로, 무리가 무엇을 하는지 몰라 더 불안해했다고 추측할 수 있다.
2. ⑤ 새들 사이의 감정 전염과, 서로를 볼 수 있는 배치(원형)가 경계 행동의 협응과 불안에 미치는 영향을 다룬다.

5-11 · 2023학년도 6월 모평 39번
1. ② 한 마리의 이탈은 포식과 무관한 이유일 수 있지만, 여러 마리가 동시에 떠나면 실제 위협일 가능성이 훨씬 크다. 정보의 신뢰성 관점이다.
2. ④ 경계하지 않는 동물은 여러 개체의 동시 이탈을 더 믿을 만한 위험 신호로 받아들인다는 글이다.