## Do animals have a consciousness?



The question of animal consciousness and their ability to think about their actions has been widely discussed, but, as of yet, has not reached a clear consensus. While there is convincing evidence to make a case for an animal's ability to think, there remains widespread doubt. In order to examine whether or not an animal, i. e. 'any living creature other than a human being',[1]can think, it is necessary to determine what it means to think. The intuitive answer would be that it is a mental process. However, it remains unclear what this means. In order for a mental process to qualify as "thinking", it needs to meet certain criteria. Some argue that "thinking" is about '[using] the brain to plan something'[2]or ' to decide to do something'[3] with a clear intention in mind. Psychologists claim that " thinking" has to be 'quintessentially conscious'[4]and 'intimately connected with language'[5]in order to qualify as such. Therefore, it seems that " thinking" is a conscious act and is closely connected to language. Thus, in agreement with this definition, it seems necessary to analyse what kinds of animal behaviour suggest conscious thinking. This paper will explore and analyse an animal's ability to use tools, its capacity for intentional planning and deceiving, as well as its aiding behaviour, and its ability to use language.

A strong indicative of animal thinking is the creation and usage of tools. Both are instances where 'it would appear especially valuable for an animal to think consciously about what it is doing.'[6]Hungry chimpanzees, for example, collect suitable branches, break off twigs, and transform them into some sort of probe, which they stick into a termite nest in order to gain access to a valuable food source.[7]The preparation and usage of such a tool requires 'a more independent action'[8]from the animal, because it

appropriates an object, i. e. the branch, to a specific purpose, i. e. a slender probe.[9]However, it is not entirely clear if the primate is, in fact, consciously thinking, because the chimpanzee's constructing and using a slender probe might also be the result of imitation. It is possible that the chimpanzee's behaviour is not due to its conscious thinking, but due to its imitating another chimpanzee. While it is possible that some conscious thought might still be involved in the overall process, it is ultimately difficult to determine if, when, and to what extent.

Such ingenious behaviour is not reserved to primates. Green-backed herons, for example, frequently collect a wide variety of objects, such as twigs, stones, or even bits of plastic, and throw them into the water as bait for small fish. Once the object, which now figures as bait tool, touches the water, small fish swim towards it to examine it. Once the fish are in reach, the heron rapidly seizes them.[10]By using unimportant objects and appropriating them as tools, the heron increases the availability of food. It seems likely that bait fishing behaviour is an acquired or learned technique, potentially by observing humans who throw bread into the water, because only some herons engage in such behaviour.[11]While this would suggest imitation as a possible cause of the heron's ingenious behaviour, it does seem likely that the birds do think about their behaviour and its desired results.

Donald Griffin argues for the existence of conscious thought in dolphin aiding behaviour.[12]Dolphins appear to be highly selective when it comes to aiding, which could potentially suggest conscious thinking.[13]While they may be inclined to help females and calves, they are likely to leave males '

at the bottom of the tank.'[14]The selectiveness of dolphin aiding behaviour suggests that they think about the situation, and make the conscious decision "help" or "leave" upon seeing a struggling member of the group. Per contra, sometimes 'a dolphin carries this aiding behaviour to extremes.'[15]A dolphin mother, for example, carried her dead calf 'until it had begun to decompose.'[16]Another dolphin 'carried a dead shark for eight days without stopping to eat.'[17]If the dolphin were fully engaging in conscious thinking, it would not help dead animals, because it would know that they are dead, and the effort would thus be in vain. Their aiding behaviour could be instinctual, i. e. 'a largely...unalterable tendency...to make a complex and specific response.'[18]While this would explain the extreme cases, it does not account for the selectiveness and versatility of dolphin aiding behaviour. Consequently, it is difficult to ascertain to what extent the dolphin is consciously thinking, though it seems highly likely that some level of thinking is involved in their aiding behaviour.

Next to tool usage and aiding behaviour, some animals also display an impressive level of intentional planning. An example of such complex behaviour is provided by a male hummingbird named 'Spot'.[19]Spot observes another hummingbird entering his territory. A hummingbird's usual behaviour would be to immediately 'utter [a] squeaky territorial song'[20]and to 'fly directly at the intruder, chasing it out of the territory.'[21]Spot, however, does no such thing. He initially remains on his perch. When Spot finally does leave the perch, he still does not display a hummingbird's usual behaviour, i. e. flying directly at the intruder. Instead, he proceeds to round the perimeter, staying low to avoid being detected,

and places himself behind the intruder. Then, he utters his territorial song, and chases the intruding hummingbird into the black threads of a mist net, which he had detected prior to the other hummingbird's intrusion.[22]Spot's delayed behaviour, i. e. not directly flying at the intruder upon detecting him but remaining on his perch, suggests that he thinks about alternative courses of action for the challenge he faces. Further, Spot's previous knowledge of the mist net, combined with the enemy's actually ending up in that net, suggests that his plan and intention were to chase the bird into the net. However, it cannot be proven with certainty if Spot had such intentions as the bird's ending up inside the net could have been the result of chance. Nevertheless, 'Spot's [altered] behaviour is certainly suggestive of conscious thinking and intentional planning.'[23]

Another ability which is suggestive of conscious thinking is an animal's engaging in the act of deceiving, i. e. ' the act of causing someone to accept as true or valid what is false and invalid.'[24]In other words, it is necessary for an animal A1 to modify the belief x of another animal A2 into a false belief y, possibly to escape a dangerous situation or to avoid punishment. Byrne and Whiten report of a troop of baboons, specifically an adolescent named Melton, who appears to engage in deceptive behaviour. Melton is terrorising a younger baboon. The group members rush towards them, possibly to punish Melton for his transgression.[25]Instead of displaying submission, ' Melton stood on his hind legs and looked around in a way that is typical when one baboon suddenly notices a predator.'[26]Consequently, the other baboons stop running towards them and start to mimic Melton's behaviour. It appears that Melton has succeeded in deceiving his troop

members into believing that a predator is around, and thus avoided punishment.[27]However, it remains unclear if Melton *did* succeed in intentionally instilling a false belief within his troop members to avoid punishment, because the troop's similar reactions could have been the result of imitation.

Though it appears plausible to assume that Melton intentionally deceived his troop members, it is not entirely impossible that there <u>was</u> a predator that Byrne and Whiten did not see, but which the baboon could either see or hear. If there <u>was</u> a predator, Melton instilled a true and valid belief within his fellow baboons. Therefore, Melton's standing on his hind legs would have been the result of his seeing or hearing the predator, and not the result of intentional deception. Further, even if there was <u>no</u> predatorit still remains dubitable if Melton succeeded in instilling a false and invalid belief within his group members, because it is possible that Melton stood on his hind legs, because, at that moment, he saw the angry troop as some sort of predator. Here, Melton's behaviour could be interpreted as his looking for the best escape route, or his assessing the positions of the approaching troop members. Thus, while Melton's behaviour is highly suggestive of conscious thinking and engaging in the act of deceiving, it is certainly not indubitable proof.

Conscious thinking is often intertwined with language, and many philosophers believe that the latter is crucial for the former. In other words, there appears to be a fundamental connection between thought and language – that is the use of language to express one's thoughts. Gardner and Gardner trained a chimpanzee named Washoe to use American Sign

Language (ASL).[28]Washoe learned to sign an impressive 132 words, among which were verbs, pronouns, and nouns. The chimpanzee was able to reply to questions and give simple commands.[29]She was able to understand the words and their meaning, which became abundantly clear when her baby suddenly died. The day after her child had passed away, Washoe's first inquiry was '" Baby?"',[30]which can undoubtedly be interpreted as an expression of her thoughts. Furthermore, after her trainer answered '" Baby gone, baby finished"',[31]Washoe's subsequent behaviour ' can best be described as grief.'[32]It is clear that Washoe understood her trainer's message and its meaning, i. e. that the baby had passed away, because she went into a state of grief.

A male bonobo named Kanzi learned to 'communicate simple desires and intentions'[33]by making use of an artificial language (Yerkish) and a lexigram keyboard.[34]Kanzi did not receive special training prior to his using the keyboard, but merely observed how it was used by his mother and the trainers. After two years, Kanzi, who had still not received special training, began operating the lexigram keyboard. The male bonobo 'request[ed] desired objects'[35]and 'communicat[ed] about things that were not present, such as desired foods or locations to which he wished to travel.'[36]In other words, he used Yerkish to express his thoughts and desires. At some point, Kanzi was required to get object x1 from location y. Even though there was an identical object x2 in front of him, he collected the object x1 from location y.[37]This makes it undeniably clear that Kanzi understood what was asked of him. Moreover, it renders indubitable that the bonobo grasped the meaning of the words, not only in singular use, but also

in a whole sentence. Kanzi's overall use of the keyboard and the artificial language prove that he 'learned to use simple grammatical rules,'[38] and was able to 'employ meaningful rule-governed combinations of individual communicative elements.'[39]

Per contra, there are occasions where primates are not able to produce rule-governed combinations. A young chimpanzee was taught sign language to test its ability to combine signs meaningfully. It was noted that 'there was little consistency',[40]because most of the signs turned out to be 'repetitious'[41]and did not add meaning to the overall "sentence". An example would be the chimpanzee requesting an orange: '"[g]ive, orange, me, give, eat, orange, give, me, eat, orange, give, me, you."'[42]However, even though this is not rule-governed, it still conveys the chimpanzee's thought.

All in all, there is compelling, yet insufficient evidence that animals can think. An animal's ability to create and use tools could suggest that it thinks about what it is doing. On the other hand, it could also simply be proof of the animal's creativity, as the tool creation and usage can be interpreted as result of imitation. The selectiveness of dolphin aiding behaviour might be accompanied by conscious thought, yet there is also a case to be made about its being instinctual reactions. Both intentional planning and deception are strong cases for animal thinking, because planning and deceiving in and of themselves are generally conscious actions accompanied by some conscious thought. While both deception and intention form a strong case for the existence of animal thought, they ultimately lack indubitable proof of the animal's actual thinking. The strongest hint of animal thinking can be found

in language use. Indeed, if the animal can understand the meaning of words, use simple grammatical rules to produce rule-governed sentences that are not the result of imitation, it seems plausible to assume that an animal can think, though one has to be cautious not to conclude that language use equals thinking. In conclusion, it is very likely that animals can think, yet it is impossible to truly conclude that they do.

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p. 101.

[7]Idem.

[8]Griffin, *Animal Minds*, p. 102.

[9]Idem.

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[10]Griffin, Animal Minds, p. 113.
[11]Griffin, <i>Animal Minds,</i> p. 114.
[12]Griffin, <i>Animal Minds,</i> p. 214.
[13]Idem.
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[30]Idem.

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[32]Idem.

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[35]Griffin, Animal Minds, p. 230.

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