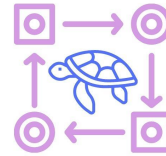




Gateway - 동물들의 선천적 회피와 적응 과정

The innate avoidance and adaptation process of animals



❶ Enabling animals to operate in the presence of harmless stimuli is an almost universal function of learning.

❷ Most animals innately avoid objects they have not previously encountered.

❸ Unfamiliar objects may be dangerous; treating them with caution has survival value.

❹ If persisted in, however, such careful behavior could interfere with feeding and other necessary activities to the extent that the benefit of caution would be lost.

❺ A turtle that withdraws into its shell at every puff of wind or whenever a cloud casts a shadow would never win races, not even with a lazy rabbit.

❻ To overcome this problem, almost all animals habituate to safe stimuli that occur frequently.

❼ Confronted by a strange object, an inexperienced animal may freeze or attempt to hide, but if nothing unpleasant happens, sooner or later it will continue its activity.

❽ The possibility also exists that an unfamiliar object may be useful, so if it poses no immediate threat, a closer inspection may be worthwhile.



01편 - 빅데이터의 원천

A source of big data



- [1] Big data is often automatically generated by a machine.
- [2] Instead of a person being involved in creating new data, it's generated purely by machines in an automated way.
- [3] If you think about traditional data sources, there was always a person involved.
- [4] Consider retail or bank transactions, telephone call detail records, product shipments, or invoice payments.
- [5] All of those involve a person doing something in order for a data record to be generated.
- [6] Somebody had to deposit money, or make a purchase, or make a phone call, or send a shipment, or make a payment.
- [7] In each case, there is a person who is taking action as part of the process of new data being created.
- [8] This is not so for big data in many cases.
- [9] A lot of sources of big data are generated without any human interaction at all.
- [10] A sensor embedded in an engine, for example, spits out data about its surroundings even if nobody touches it or asks it to.



02편 - 유전적 요인과 초기 경험에 영향을 받는 스트레스 반응



### Stress Responses Influenced by Genetic Factors and Early Experiences

[1] Stress responses in adult animals are profoundly affected by prenatal stress and variations in maternal care.

[2] The effects of variations in maternal care are transmitted across generations with offspring who experience high maternal care exhibiting lower stress responses and providing high maternal care themselves.

[3] Such effects would be adaptive when offspring experience an environment similar to their parents.

[4] Mothers providing low maternal care tend to have high-stress responsiveness, as do their offspring when they become adults.

[5] However, offspring cross-fostered to other mothers show patterns of stress responsivity more similar to that of their foster mothers.

[6] Such results suggest that stress responsivity and maternal care are influenced by early experiences as well as genetic factors.

[7] Such regulation is seen in other mammals and even plants.



08편 - 흑인 발명가 Granville T. Woods

Black inventor Granville T. Woods



[1] Granville T. Woods was born in Columbus, Ohio, on April 23, 1856, to free black parents.

[2] He only attended school for a few years before dropping out and spending his time working.

[3] As a teenager, Woods held a variety of jobs, including a laborer in a steel mill, a railroad worker, and an apprentice in a machine shop.

[4] Woods's passion, however, was electrical engineering.

[5] Woods read and studied the subject relentlessly.

[6] Like many other black inventors, however, he had difficulty finding work that matched his skills.

[7] In the 1880s, after years of frustration, Woods decided to take his life in a new direction.

[8] Since he could not find an employer who would give him the work he wanted to do, he went into business for himself instead.

[9] Opening a workshop in Cincinnati, he immediately started inventing.



04편 - 관찰하기 어려운 것을 연구하는 것의 중요성



The importance of studying things that are difficult to observe

[1] Some scholars recommend we focus on questions that are easy to answer.

[2] This criterion is not without logic: study of the fundamentally unknowable is futile and should be avoided.

[3] However, the larger danger lies in pointlessly "looking under the light" when the object sought lies in darkness but could with effort be found.

[4] Large parts of social science have already diverted their focus from the important to the easily observed, thereby drifting into trivia.

[5] Einstein's general theory of relativity proved hard to test.

[6] So should he have restrained himself from devising it?

[7] The structure of a scientific program is distorted when researchers shy from the logical next question because its answer will be hard to find.

[8] A better solution is to give bonus credit to scholars who take on the harder task of studying the less observable.