ANTHROPOLOGY NEWS DIARY

(AND)

04.10.2021

FOR UPSC CSE MAINS

This series provides compilation of daily CURRENT AFFAIRS of Anthropology.

It is aimed at addressing the requirement of aspirants to add contemporary aspects of the subject to the answers.

It also helps in understanding the trends of anthropology across India and the world.

NOTE: Please attempt the questions given at the end of the document and can upload on the telegram channel: Sosin for Anthropology Q&A, for peer review.
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Note - For convenience, the respective reference links have been dropped at
the end of every topic.
A. BIOLOGICAL ANTHROPOLOGY

1. Sneezing & Brain Cells

Context:
A team has identified, in mice, specific cells and proteins that control the sneeze reflex. Better understanding of what causes us to sneeze -- specifically how neurons behave in response to allergens and viruses -- may point to treatments capable of slowing the spread of infectious respiratory diseases.

Highlights:
- Better understanding what causes us to sneeze -- specifically how neurons behave in response to allergens and viruses -- may point to treatments capable of slowing the spread of infectious respiratory diseases via sneezes.
- The researchers study the neural mechanism behind sneezing because so many people, including members of my own family, sneeze because of problems such as seasonal allergies and viral infections.
- Their goal is to understand how neurons behave in response to allergies and viral infections, including how they contribute to itchy eyes, sneezing and other symptoms. Our recent studies have uncovered links between nerve cells and other systems that could help in the development of treatments for sneezing and for fighting infectious respiratory diseases.
- Sneezing is the most forceful and common way to spread infectious droplets from respiratory infections. Scientists first identified a sneeze-evoking region in the central nervous system more than 20 years ago, but little has been understood regarding how the sneeze reflex works at the cellular and molecular level.
- A new study established a mouse model in an attempt to identify which nerve cells send signals that make mice sneeze. The researchers exposed the mice to aerosolized droplets containing either histamine or capsaicin, a pungent compound made from chili peppers. Both elicited sneezes from the mice, as they do in people.
- None of these sneeze-evoking neurons were housed in any of the known regions of the brainstem linked to breathing and respiration.
- Although they found that sneeze-evoking cells are in a different region of the brain than the region that controls breathing, they also found that the cells in those two regions were directly connected via their axons, the wiring of nerve cells.
- Because many viruses and other pathogens -- including the majority of human rhinoviruses and coronaviruses such as Middle East respiratory syndrome coronavirus (MERS-CoV) and SARS-CoV-2, the coronavirus that causes COVID-19 -- are spread in part by aerosolized droplets, Liu said it may be possible to limit the spread of those pathogens by targeting NMB or its receptor to limit sneezing in those known to be infected.

Reference:
https://www.sciencedaily.com/releases/2021/06/210615132204.htm

2. Genetic Evolution Obsoleteness

- Evolution isn't bound strictly to genes anymore, a new study suggests. Instead, human culture may be driving evolution faster than genetic mutations can work.
- In this conception, evolution no longer requires genetic mutations that confer a survival advantage being passed on and becoming widespread. Instead, learned behaviors passed on through culture are the "mutations" that provide survival advantages.
• This so-called cultural evolution may now shape humanity's fate more strongly than natural selection, the researchers argue.

• Humans mostly don't need to adapt to such threats genetically. Instead, we adapt by developing vaccines and other medical interventions, which are not the results of one person's work but rather of many people building on the accumulated "mutations" of cultural knowledge.

• And sometimes, cultural evolution can lead to genetic evolution. The classic example is lactose tolerance. Drinking cow's milk began as a cultural trait that then drove the [genetic] evolution of a group of humans. In that case, cultural change preceded genetic change, not the other way around.

• Charles Darwin understood that behaviors could evolve and be passed to offspring just as physical traits are, but scientists in his day believed that changes in behaviors were inherited. For example, if a mother had a trait that inclined her to teach a daughter to forage for food, she would pass on this inherited trait to her daughter. In turn, her daughter might be more likely to survive, and as a result, that trait would become more common in the population.

• In the very long term, humans are evolving from individual genetic organisms to cultural groups which function as super organisms, similar to ant colonies and beehives. But genetics drives bee colonies, while the human super organism will exist in a category all its own. What that super organism looks like in the distant future is unclear, but it will likely take a village to figure it out.

Reference:
https://www.livescience.com/culture-evolves-faster-than-genes.html

3. Drug & Human Consciousness

• Some believe that psychedelics helped our ancestors' brains reorganize and take on new mental properties, but the evidence is contradictory.

• Recent evidence suggests that production and consumption of alcohol not only predated the agricultural revolution but actually stimulated it.

• Social alcohol consumption may have allowed our ancestors to become more expansive in their thinking, as well as more collaborative and creative.

• The increase in brain activity in this study accompanied peculiar sensations that participants said ranged from floating and finding inner peace to distortions in time and a conviction that the self was disintegrating.

• The researchers have speculated that the increased neural activity in particular regions of the brain could explain the dreamlike hallucinations some people experience when under the influence of psychedelic substances.

Reference:

B. ARCHAEOLOGICAL ANTHROPOLOGY

1. Cultural Relic Excavation

• UFO buffs have been buzzing over the recent excavation of a figurine with alien-like features at the mysterious Sanxingdui ruins, believing it is the site of the remains of extraterrestrial life.
● Measuring 115cm-tall, the bronze figurine is seen with its hands clasped in front of the body and a square plate on its head.

● This is one of the latest discoveries of the Sanxingdui archaeological excavation project, aside from the thousands of relics and fragments unearthed before.

● The discovery makes a great present to the country as it celebrates the 100th anniversary of Chinese archaeology.

● This statue is not the only one with protruding eyes, square face, big ears, wide mouth and sharp nose. There were more at the Sanxingdui Museum, including a slew of busts, a figurine with a human head and bird body and a bronze item that resembles a car steering wheel.

● This is a major find which experts believe could help to complete the diverse and long history of Chinese civilization.

● Currently, the archaeological team is working on six pits believed to be used for sacrificial ceremonies, in which they have dug out over 1,000 items including an abundance of ivory.

● Among the star artefacts at the Sanxingdui Museum are a 286g gold mask, a 395cm-high bronze tree, a head sculpture which features a pair of slanted eyes with two cylindrical eyeballs protruding from them. There is also a 260.8cm-tall standing figurine of a man, believed to be the Shu King, clad in clothing decorated with a dragon pattern.

Reference:
2. India & Metal Work

• The Harappan metal smiths undoubtedly knew the art of using copper, bronze, lead, silver, gold and electrum, an alloy of gold and silver. Copper technology is the earliest.
• India has had an impressive and evolving tradition of metal works dating back to the fourth millennium BCE.
• The beginnings can be traced to the Indus valley civilization, and the tradition continues to this day.
• Harappans must have discovered early that adding tin to copper produced bronze, an alloy harder than copper but easier to cast. Also, it is more resistant to corrosion. Adding nickel, arsenic or lead enabled the Harappans to harden bronze further.
• The copper-bronze implements unearthed at Mohenjo-daro include axes, daggers, knives, spears, arrow heads, short swords, chisels, drills, fish-hooks, metal mirrors and so on.
• A remarkable tool of the Harappan civilisation was the true saw, a blade with teeth, able to cut through wood instead of merely gashing the surface. It appears that this was unknown elsewhere at that time.
• The tradition continues to this day. We have artisan classes producing metal works using essentially traditional techniques throughout India, be it Swamimalai in Tamil Nadu, Bidar in Karnataka, Moradabad in Uttar Pradesh or many other centres in India. There is a considerable evolution of the technique.

Reference:
https://www.newindianexpress.com/opinions/2021/jun/05/indias-magnificent-tradition-of-metal-works-2311868.html

UPSC Previous year questions based on today's concept:
1. Discuss the significance of Harappan Civilization Sites in India. (15 Marks - 2015)
2. Twin method in human genetics. (10 Marks - 2013)

DAILY PRACTICE QUESTION/S FOR MAINS 2021.
Pl do not forget to upload your answer sheet for a peer review on the telegram channel:

Sosin for Anthropology Q&A
1. Scope of Epidemiological Anthropology. (20 Marks)