

Words of Consciousness

the alternative master project

Julian Jaynes' controversial theory on the origin of consciousness

“According to Jaynes, ancient people in the bicameral state of mind would have experienced the world in a manner that has some similarities to that of a schizophrenic. Rather than making conscious evaluations in novel or unexpected situations, the person would hallucinate a voice or "god" giving admonitory advice or commands and obey without question: one would not be at all conscious of one's own thought processes per se. Research into "command hallucinations" that often direct the behavior of those labeled schizophrenic, as well as other voice hearers, supports Jaynes's predictions. [...] Jaynes inferred that these "voices" came from the right brain counterparts of the left brain language centres—specifically, the counterparts to Wernicke's area and Broca's area. These regions are somewhat dormant in the right brains of most modern humans, but Jaynes noted that some studies show that auditory hallucinations correspond to increased activity in these areas of the brain.” [from Wikipedia]

Ref: Jaynes (1976)

<http://www.julianjaynes.org/>

What does it have to do with language?

“Jaynes built a case for this hypothesis that human brains existed in a bicameral state until as recently as 3000 years ago by citing evidence from many diverse sources including historical literature. [...] Jaynes asserted that, until roughly the times written about in Homer's Iliad, humans did not generally have the self-awareness characteristic of consciousness as most people experience it today. Rather, the bicameral individual was guided by mental commands believed to be issued by external "gods" — commands which were recorded in ancient myths, legends and historical accounts. This is exemplified not only in the commands given to characters in ancient epics but also the very muses of Greek mythology which "sang" the poems: the ancients figuratively heard muses as the direct source of their music and poetry.

For example, in the Iliad and sections of the Old Testament no mention is made of any kind of cognitive processes such as introspection, and there is no apparent indication that the writers were self-aware. According to Jaynes, the older portions of the Old Testament (such as the Book of Amos) have few or none of the features of some later books of the Old Testament (such as Ecclesiastes) as well as later works such as Homer's Odyssey, which show indications of a profoundly different kind of mentality — an early form of consciousness.” [from Wikipedia]

What does it have to do with language processing?

Diuk et al. (2012):

“The cultural evolution of introspective thought has been recognized to undergo a drastic change during the middle of the first millennium BC. This period, known as the “Axial Age”, saw the birth of religions and philosophies still alive in modern culture, as well as the transition from orality to literacy - which led to the hypothesis of a link between introspection and literacy. Here we set out to examine the evolution of introspection in the Axial Age, studying the cultural record of the Greco-Roman and Judeo-Christian literary traditions. Using a statistical measure of semantic similarity, we identify a single “arrow of time” in the Old and New Testaments of the Bible, and a more complex non-monotonic dynamics in the Greco-Roman tradition reflecting the rise and fall of the respective societies. A comparable analysis of the 20th century cultural record shows a steady increase in the incidence of introspective topics, punctuated by abrupt declines during and preceding the First and Second World Wars. Our results show that (a) it is possible to devise a consistent metric to quantify the history of a high-level concept such as introspection, cementing the path for a new quantitative philology and (b) to the extent that it is captured in the cultural record, the increased ability of human thought for self-reflection that the Axial Age brought about is still heavily determined by societal contingencies beyond the orality-literacy nexus.”

Zhang et al. (2015):

“In this paper, we approach the temporal correspondence problem in which, given an input term (e.g., iPod) and the target time (e.g. 1980s), the task is to find the counterpart of the query that existed in the target time. We propose an approach that transforms word contexts across time based on their neural network representations. We then experimentally demonstrate the effectiveness of our method on the New York Times Annotated Corpus.”

Questions

1. can we really find different (language) contexts regarding consciousness in different eras?
2. what stands in place of consciousness where consciousness was not supposed to be there?
(cf ipod vs walkman)

References

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- Zhang, Y., A. Jatowt, S. S. Bhowmick, and K. Tanaka (2015). Omnia mutantur, nihil interit: Connecting past with present by finding corresponding terms across time. In *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics ACL 2015, July 26-31, 2015, Beijing, China, Volume 1: Long Papers*, pp. 645–655.