

TALK

FEAR OF SNAKES IN THE CRADLE OF HUMANKIND: VIPERS VS COBRAS

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ABSTRACT

Snakes are recognized as highly fear-evoking animals, eliciting preferential attention and fast detection in humans. This phenomenon is typically attributed to the evolutionary experiences of human ancestors with snakes. We focused our research on the cradle of humankind and conducted our investigation in the Horn of Africa. This region is characterized by occurrence of various snakes, including deadly venomous viperids (adders) and elapids (cobras and mambas). As the snake fauna of the region has remained stable since the late Miocene, local people face similar threats to those encountered by early humans. As a control, we included respondents from a WEIRD population with little experience with African snakes, namely Europeans (Czechs). Here, we summarize the results of a series of experiments evaluating fear of (1) local snakes, (2) vipers, cobras, sand-boas, and colubrids, (3) their silhouettes, (4) New World snakes, and (5) threatening snakes. To compare the subjective fear of individual stimuli, we employed a well-established picture-sorting approach. The high subjective fear was confined to certain categories of snakes (taxa or morphotypes), rather than to species locally representing the highest danger. In both African and European data sets vipers occupied the highest positions according to the reported level of subjectively perceived fear. The high fear of vipers strongly contrasts with the fear ranking of deadly venomous elapids (if not hooding), which were in lower positions. The best morphological predictor of the evoked fear was the body width of the snake. We discuss the evolutionary, cultural, and cognitive aspects of the results.