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The timing of the evolution of human cognitive capacities has become an issue (MacLean 2016), so presenters focus on when specific cognitive, sensory, neurological, and cultural components emerge. They describe and integrate two models emerging from evidence in modern cognitive science, neuroscience, and genomic science.

They view cultural, moral, and religious capacities as separate, sequential modifications that emerged in that order, and came together in Homo sapiens at around 200,000 years ago. Precursors to cultural capacity were present in the ancient ape population giving rise to chimpanzees, bonobos, and hominins. All species in Pan and Homo evidence culture – chimpanzees and bonobos, weakly, and humans, strongly.

This paper explores the intersection of two previously developed models of biological evolution: first, moral capacity, and second, religious capacity. Presenters take a somewhat contrarian view that the "engulfing" of moral capacity by religious capacity is biologically based, and that the capacities join effectively to support the social group. Later examples of religion's "going astray" depend more upon wayward economic and political factors, than upon the malfunctioning of these two pro-social human capacities.

The presenters have proposed (2016; 2017) a rudimentary moral capacity developing in Homo erectus after that species learned to control fire and an intense, experiential learning context emerged – "The Human Hearth." Moral capacity emerged around 1 – 1.5 million years ago, in response to specific features of Homo erectus' demography, cognition, longevity, and reduced sexual dimorphism. A core contention is that moral capacity pre-dated the flowering of religious capacity in anatomically modern humans, 200,000 years ago, in East Africa (Omo and Herto fossils).

The presenters review their model of religious capacity's foundational building blocks: primate sociality at 55-65 million years ago; a basic ape model from the Miocene ape radiation, 19 million years ago (Proconsul); a re-alignment of the senses with improvements in vision and hearing; a down-regulation of aggression, increase in social tolerance, secondary altriciality, a lengthening of cognitive maturation into the twenties, and an uptick in intellect to control aggression at about 8-10 million years ago; an up-regulation in sensitivity (environmental, social, and emotional); moral capacity with Homo erectus; and expansion of the parietal areas of the brain (with prefrontal connections) giving modern humans the necessary neurological structures to develop theologies explaining the relationships between humans and the supernatural, along with excellent skills in visuospatial reckoning. MacLean posits a second bout of down-regulation of aggression in Homo sapiens.

The presenters summarize a new model that explains when, how, why, and where religious capacity came to employ moral capacity almost exclusively (the primary exception being voluntary associations). In this fundamental switching of moral application to a (cultural) religious realm, cultural capacity (evident for 8-9 million years) burgeoned and invaded almost every aspect of human social life. The explanation hinges on the final evolutionary touches wrought by an expansion of the parietal lobes (and more specifically, the precuneus), to create the globular, human skull shape we all have