Rough and tumble

Human beings comprise a peculiar species on this planet with their multitude of behaviours, morphologies and proclivities. What we humans all have in common is our deep ancestry, just like all other species that have their own peculiarities. One need not look further than the daily newspaper to find examples of our worst inheritance: human-on-human aggression. It raises the question as to whether such aggression can be tied to our unique evolutionary history, particularly with regard to our prehistoric habit of hunting game for food. Questions about the relationship between the evolutionary origins of hunting behaviours and contemporary human aggression have been asked for decades, if not centuries, in one form or another. To dissect the myriad of ideas and hypotheses, none could have done a better job than Travis Rayne Pickering.

Pickering is a Professor of Anthropology at the University of Wisconsin, but his professorial skills extend over a wide gamut in this book – from historian to science philosopher, from palaeontologist to behaviourist. I might add in journalist as well. Despite taking pains at every turn to honestly portray his science with the utmost rigidity and fealty, he manages to keep the pace of the book moving like a gripping novel.

The first full chapter begins with a narrative about C.K. ‘Bob’ Brain – an icon of South African palaeontology and taphonomy, which are the topics that pervade the book. Biographical vignettes of Bob Brain are peppered throughout the book. I find this appropriate, as it is clear that Brain’s scientific body of work and personal experiences have helped to shape Pickering’s views, as they have for so many of us over multiple decades.

For those of you who are not familiar with the science of taphonomy, it is literally the study of the grave – the study of what happens to something after it dies. It is of critical importance to understanding the very nature of the fossil record, and Pickering, like Brain before him, is a master of the science. He uses it to tease through every bit of evidence, minute through grand, to formulate a cogent, plausible and testable notion of the relationship, if any, between our hunting origins and our current aggressions. Like any intimate relationship, it turns out to be, well, complicated.

Pickering goes to great lengths to push back the origins of human hunting to an earlier phase than most currently accept. He builds a strong case that early members of the genus *Homo* (as currently defined) may have been more than passive scavengers. I cannot say I fully agree with all of his arguments, particularly in Chapter 4 when he focuses on lion habits rather than those of other carnivores. But he puts his ideas out there with research data, and makes it clear that he is ready, and more importantly open, for debate.

Some readers might have wanted the book to come to a more succinct and defined conclusion. As much as I enjoyed reading *Rough and Tumble*, it has no crescendo at the end. The positive side of that reflects what I noted at the beginning of this review – Pickering is a careful and meticulous scientist, not prone to grandiose proclamations about how life used to be in our evolutionary past.

I will assign this book to my graduate students, as there is a lot of fodder for discussion for those seeking higher degrees; it has copious notes at the end for the serious scholar. I think that *Rough and Tumble* will interest undergraduates and the general public as well, given the high quality of writing. But I also hope that this book stays on the record as being representative of excellence in science and the scientific method. Some of the conclusions may change, but that is the nature of science and the science of nature. Pickering’s approach is among the best I have seen.
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Rough and tumble or gouging was a form of fighting in rural portions of the United States, primarily in the eighteenth and nineteenth centuries. It was often characterized by the objective of gouging out an opponent's eye but also included other brutally disfiguring techniques, including biting, and typically took place in order to settle disputes. Though gouging was common by the 1730s in southern colonies, the practice was waning by the 1840s, by which time the Bowie knife and revolver had made