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Why Humans Prevail

By Marlene Zuk and Michael L. Wilson

Remember Jared Diamond's 1997 best seller *Guns, Germs and Steel* (W.W. Norton)? Yuval Noah Harari's *Sapiens*, an international publishing phenomenon now in English translation, is a lot like it, but without the weaponry, disease, or metals. It is audacious in its reach, perhaps even more so than Diamond's attempt to explain the predominance of Western society. Harari's goal is to explain nothing less than the predominance, and the character, of humanity itself.

While Diamond focused on the material, Harari, a historian at Hebrew University, points to the role of the imaginary in humanity's success. It was only when people agreed to hold common myths — whether about money, gods, or limited-liability laws — that he sees humans becoming fundamentally different from other animals.

Sapiens: A Brief History of Humankind By Yuval Noah Harari (Harper)

Reading *Sapiens* is like looking at one of those pictures that, when viewed from a distance, is clearly a portrait of, say, Lincoln, but when viewed closer turns out to be a mosaic of thousands of other tiny images. But look closely at the tiny images and many of them are just a bit off — a horse with six legs, or George Washington wearing a cocktail dress. The big picture is compelling, admirably composed by making connections among disparate topics, but some details, from the role of mutation in speciation to the timing of the cognitive revolution, reveal misunderstandings or outdated views.

The first part of the book dwells on human exceptionalism, and the ways that people are not like other species, or even much like our early human ancestors. Such comparisons often become selffulfilling, not to mention self-congratulatory: People possess Characteristic A, which other animals do not, which must mean that Characteristic A is not only key to being human but also laudable. In Sapiens' case, the characteristics are sometimes flimsy. For example, although Harari correctly nods to the influence of both genes and the environment on all behaviors, he also claims that "in a given environment, animals of the same species will tend to behave in a similar way," whereas humans are all different. In the case of the honeybee, "its DNA programs the necessary behaviors for whatever role it will fulfill in life." But anyone observing animals, whether insects or apes, will soon see far more variation than they expected. We all tend to see more minute variations in those most resembling us.

In the end, Harari gives the most weight to language as the factor differentiating humans from other species, a sound if less-than-novel conclusion. He then uses it to suggest that humans were able to parlay communication into commonly held myths. Without myths to motivate and coordinate group effort, early humans were just another kind of ape. Armed with myths, humans conquered the planet.

Imagination and myth, not to mention outright lies, it would seem, can explain everything from religion to money to imperialism. In Harari's telling, religion is a unifier, along with money and empires, and empires are viewed as stabilizing rather than villainous. The story of Peugeot — an agreed-upon myth called a limited-liability company — becomes an allegory for human development, all via agreed-upon fictions. Money, in particular, is touted as "the greatest conqueror in history," and Harari provides a fascinating contrast between Spain and the Netherlands to show how belief in credit and investment enabled the Dutch to replace the Spanish as a global superpower. By investing in trade rather than conquest, and by scrupulously repaying loans, the Dutch parlayed their holdings into a worldwide empire. Their supremacy did not last, but to Harari it illustrates the power of our belief in the intangible.

While Harari tells a grand story of human evolution, from our primate ancestors to our potentially posthuman descendants, he does not sufficiently appreciate a fundamental concept in evolution: fitness. Whatever the cultural context, people tend to behave in ways that, on average, optimize their fitness: making babies, making sure those babies survive to adulthood, and giving their grown children all the help they can to gain high status, acquire resources, and make babies of their own. Fitness matters not just for biological evolution but for cultural evolution. Fitness-enhancing ideas spread and become common. Fitness-decreasing ideas become extinct. Religions that promote big families gain members through reproduction, while religions that promote vasectomy or suicide become extinct. (Millions of Americans follow Joseph Smith, but none follow Jim Jones.)

Fitness lurks in the background of Harari's story, but is obscured by his focus on fictions. He posits that human behavior is entirely arbitrary, motivated by various ideas (religion, science, empire, capitalism) in ways entirely divorced from biology. But ultimately, people are biological as well as ideological.

Harari does sometimes nod to the importance of fitness. For example: Why are most people in the world farmers and herders rather than hunters and gatherers? Because farmers and herders make more babies. Harari tells this demographic story well, but in too many other places, he argues that ideas make biology irrelevant.

He describes agriculture as "history's biggest fraud," in which hunter-gatherers made a Faustian bargain, giving up both the dangers and freedoms of foraging for the domesticated life of peasants: secure, but chained to never-ending toil, shepherded by elites who both protected and exploited their human flocks. This dim view of agriculture follows a centuries-old tradition in the West of idealizing a lost Golden Age, but shifts the ideal lifestyle back in time from shepherds to mammoth hunters. It's easy to idealize (or demonize) a way of life that is remote from our own. A more balanced view would recognize that the transition from hunting and gathering to producing food brought both benefits

and costs.

Sapiens was most compelling when it left biology and anthropology, our areas of expertise, for history and economics, which inescapably led us to wonder if we simply lacked the ability to see flaws in Harari's treatment of that material. And even connections between biology and history sometimes prove worrisome. For example, Harari discusses religion in broad terms, including what are usually called ideologies: humanism, socialism, communism, capitalism, and so forth. This seems right, both because the traditional set of religions includes nontheistic beliefs such as Buddhism, and because naturalistic ideologies serve many of the same functions as traditional religions, especially in totalitarian societies.

However, Harari disappointingly classifies Nazism as "evolutionary humanism." This mistakenly categorizes Nazism as an atheistic creed, when in fact the great majority of Nazis were Christians (like most Germans at the time). Nazi slogans promoted, not atheism, but "*Kinder, Küche, Kirche*" (children, kitchen, and church). Categorizing the Nazis as atheistic evolutionists is a common tactic of creationists seeking to discredit Darwinism, but seems a surprisingly sloppy error for a historian.

Harari cherry-picks examples, and he is distressingly miserly about giving researchers credit for their ideas. Still, in espousing his particular Theory of Everything, his style is breezy and engaging. Reading it is like joining a wide-ranging and provocative dinner table conversation. You may not agree with it all, but it makes for a memorable meal.

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