

Editorial

Some Thoughts Written on 'Juneteenth' of 2020, the Day Commemorating the End of Slavery in the United States, June 19, 1865, at the End of our Civil War

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We are human beings, imbued with the ability to make decisions and think deductively and inductively. However, our ability to do so is related asymmetrically to external factors such as wealth and physical strength; some are imbued with more power than others and use that extra power as a tool to influence how fair and equitable are defined or, in extreme cases, to oppress the weaker. As a consequence, individuals and groups sometimes behave in ways that are destructive both physically and emotionally to others. Thus, it is not surprising that throughout our recorded history there have been actions affecting masses of people that we consider (at least in retrospect) to be based on illogical and uncivilized criteria.

After all, we are human beings.

Perhaps what separates us most dramatically from other animals on Earth is our ability to reason and recognize when we have erred. We can apologize and we can change our behavior in dramatic ways over short periods of time. The fact that we can does not mean that we do when we should.

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The currently highlighted examples of racism, sexism, religious intolerance, etc. in the United States are not new. They have been a part of our 'culture' throughout history. They have occurred in various forms to greater or lesser degrees in every corner of our world during many millennia. The impetus for many wars can be traced to the subjective criteria for how we perceive other members of our species.

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Without accepting and respecting the different ways by which we view others, we, as a species, are inexorably tied in the future to prejudice of thought, and eventually, to actions against others. So, what can we do? If we have not eradicated racism, sexism, and religious intolerance in our long history on this planet, is it reasonable to expect that we will be able to do so now? Is there a vaccine that can protect us against hatred and intolerance? I think not; this type of ailment is not like polio or Covid-19.

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However, we can recognize that the society that forms our ideas about others includes, almost always, embedded prejudices in our brains that cannot be erased completely. Fortunately, because we can reason, we should be able to work, over time, to minimize our prejudices. Recognizing our shortcomings gives human beings the ability to adapt in ways that separate us from other animals. Although there is no recipe for using our powers to ensure rational decisions, we are capable of changing how our brains process information and translate that information into more constructive actions. If we do so with the welfare of others in mind, it should be possible to reduce over time the damage our species is capable of inflicting on others, as well as on our environment. The real question is whether we will use, more judiciously, the examples of the past to improve the lives of all in the future. If history is our guide, the answer is, "Yes, we *can* but, no, we won't." However, there is hope.

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Closer to our professional home, what is the role of science in addressing racism, sexism, and religious intolerance? Do we consider who is the author of data or just the validity of the data? Do we weigh the quality of the data without considering its source? Do we, as scientists, bring total objectivity to our profession? Recent examples in the literature indicate that, no matter how much we profess otherwise, scientists are just another slice of humanity, in which (hopefully no more than) a small fraction operates on their prejudices under the false guise of objective, scientific judgments. However, there is hope.

After all, scientists are human beings too.

Richard G. Weiss An aspiring scientist and flawed human being