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On Baselines That Need Shifting

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A flurry of articles in recent years shows that loss of knowledge about the past may have contributed to an acceptance of other losses, such as declines in biodiversity. I first identified this form of collective amnesia in a 1995 article describing how fisheries biologists assess changes in biomass abundance. Every generation begins its conscious life by assessing the state of the world and society around it and using what it sees as a baseline to evaluate changes that occur subsequently.¹

However, the baselines of previous generations are commonly ignored, and thus the standard by which we assess change also changes. I called this phenomenon “shifting baselines.”

For example, those studying wildlife today might be impressed by the abundance of large wild mammals (bears, wolves, various herbivores) in Alaska, while being unaware that such numbers were at one time common in the lower 48. Therefore, they might not miss the large animals there and might look askance at efforts to (re)introduce previously abundant species.

The shifting baseline phenomenon has been well documented in marine science, including fisheries research. For example, there are many cases where the law mandates rebuilding fish populations to the level prevailing, say, 20 years before, although populations were already depleted by then, at least as compared to 50 years earlier. Indeed, it is only by combining the declines noted by successive generations that we can get a full appreciation of the great loss of biodiversity that has occurred in the sea and on land due to the impact of humanity.

But shifting baselines need not be associated with losses. Indeed, forgetting can be a good thing. When people who have suffered under the load of a long, stifling tradition emigrate and thus are enabled to distance themselves, both geographically and emotionally, from the ancestral conflicts that in their home countries confined them within balkanized camps, a positive shifting baseline occurs in the generations that follow.

Positive shifts in baselines also occur after social change. One example is smoking in enclosed public spaces, which was ubiquitous in the 1960s. At the time, change seemed impossible, and the stranglehold that the tobacco industry had on our legislators seemed unbreakable. Then, somehow, anti-tobacco activism, medical science, and common

sense coalesced into an unstoppable force—let’s call it the *Zeitgeist*—which overcame all resistance, first in the United States, then in Europe, including France (France!). Now we look back, and our baseline—and especially that of young people—has so shifted that we do not understand how we ever accepted smoking in tight public places. We have collectively forgotten how it felt (and smelt) and how we could even tolerate it—just as we have collectively forgotten how it was when the majority of people were farmers or, even earlier, hunter-gatherers surrounded by nature that teemed with a diverse animal and plant life.

Similarly, in our culture, it now seems impossible to even imagine that women and minorities could not vote, attend universities, or become elected politicians. In fact, in the West, the very act of questioning these social advances defines fringe culture, just as denying evolution or climate change defines fringe science. Similarly, our baselines have shifted so much that we have forgotten the once powerful notion that there are special people, kings and queens and their broods, which should rule us because a deity said so.

Getting back to earth: for baselines to shift is not always bad. There are stupid things that must be forgotten even if they have been the rule for thousands of years. Getting rid of these notions is similar to detoxifying ourselves, freeing our minds to be able to concentrate on things that matter, including those “old” things that we should remember. One of these old things is that what we eat should be healthy. We do not need to eat the abject stuff that now passes for food, but would certainly not be recognized as such by our ancestors. Other old things are that we shouldn’t be surrounded by pollutants of various kinds, and that we shouldn’t accept that sprawl should eat up natural landscapes, and that we shouldn’t allow out-of-control fisheries to eat up the ocean.

Indeed, reversing the present destructive trends induced by large-scale, industrial fisheries—which is possible under a regime in which fuel energy costs its true price—would lead not only to more plentiful, larger fish for coastal, small-scale fisheries to catch, but to a world in which fisheries could coexist with whale watching and other forms of coastal tourism. It would be a world in which people could acquaint themselves with the sea as the wondrous habitat of the many life forms that we may eat as seafood or just enjoy for being there.

In other words, we want the bad old things to shift away and the good old things to shift back into focus.

References

1. Pauly, D. Anecdotes and the shifting baseline syndrome of fisheries. *Trends in Ecology and Evolution* 10, 430 (1995).



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