

# Relationships

**James Tierney**

What's wrong with relationships?

Nothing! They are where the very best things that happen to us as individuals and as a group, happen. They are where the very worst things happen as well. In that sense they are like families, only more flexible.

It is in relationships that collective learning operates and it is through culture that information is transferred from one generation to the next. It is modified as it is transferred so it is a very dynamic process. What was gospel yesterday could be garbage tomorrow. That is why we are the species selected to assist nature in the process and, basically, why we behave the way we do. Not only do we save the information of yesterday which we call history but we are continually testing today's information for its relevance and validity. The variables are unimaginable and their relationships become more complicated every day, every hour.

Many other species use culture to guide their behaviors. So, culture as a component of behaviors, emerged via the life phase of evolution millions of years ago. Many species like some bees, termites and ants sacrificed individuality for the group benefit availability through functioning as a single unit as opposed to many units dependent on cooperation for their functionality. It looks like nature selected for competition many times before selecting cooperation as her avenue to wherever she is taking us. Our mix of cooperation and competition is the new kid on the block in terms of functionality and can be followed back through our mammalian heritage for many millions of years. Of greater interest, to me at least, is the last few million years as our species stepped up to more directly assist nature in her journey. The last twenty thousand to 100,000 years is particularly interesting since all of our social behaviors-our relationships-have emerged during this period and it is those behaviors that now ask us to guide evolution going forward. Should we refuse to step up, our culture will continue to drive the process. The die is cast. We will simply have less say as to who we will become and what our habitat will be like.

I think it is extraordinary that our species is now the driver of evolution. As we know, evolution has three phases so far and these encompass the full scope of all history. Initially nature converted radiation to matter then the many versions of life emerged from that matter. Now, our species, with the components of the previous phases of evolution, is determining where it is all going. We do this through our culture, our relationships, our capacity to store and retrieve information and pass it from one generation to the next, our collective learning. We do not yet fully understand the mechanism through which our common social behaviors merge to become the culture that now drives evolution but it seems clear that our culture, human culture, is the only culture that can do it. It is an enormous progression beyond natural selection.

So, I was surprised to see the following as the New York Times quote of the day on 1/14/2020, "All that matters from an evolutionary standpoint is that you reproduce. If you die in your 40s, so what? It's kind of a cold way to think about it, but it is what it is."

The quote is taken from an article in that day's Times by Gary Perdew, a molecular toxicologist at Penn State which was a valid and useful report on how airborne toxins may have shaped our evolution. It was, however, simplistic in terms of how evolution works now. Reproduction is no longer the only mechanism or even the primary mechanism that evolution uses to define who we are becoming. Although we don't know exactly how, our culture does it, it clearly is the dominant factor.

This is probably also a good example of why the hard sciences, if molecular toxicology is one, should not be generalized to answer broader social questions like what forces are driving who we are becoming as a species. You would, however, think the editor of the NY Time's science section would be able to make such generalizations.