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## A Theory of Chronic Pain

*A social and evolutionary theory of human disease and chronic pain*

by Denis Rancourt / December 26th, 2011

We like to nurture a species self-image where we are radically different from ants and bees. The idea goes like this. Ants and bees are automatons completely governed by chemical and physical signals and each individual in the colony has its place which determines its physical body characteristics, adapted to the function of its class.

We distinguish these colony insects from mammals which we project have much higher degrees of individuality. We like to think of herds or packs of mammals as individuals who “choose” to come together and cooperate. We generally don’t admit body characteristics of individuals as being associated with class in societal dominance hierarchies.

But humans, primates and ants and bees may be much closer than we care to admit, then we are easily able to perceive.

There is an area of scientific research which points to just how wrong we may be. It is the study of the effects of a dominance hierarchy on the health of the individual. It turns out that in mammals and birds, for example, the health of the individual, barring accidents of nature, is primarily due to the individual’s position in the society’s dominance hierarchy.<sup>1, 2, 3</sup> Here, one needs to stress “primarily”, as in by far the greatest determining factor — having a direct bio-chemical and physiological impact.<sup>1</sup>

The dominance hierarchy in packs of monkeys, for example, determines fertility, resistance to disease, vigour, and longevity of the individual.<sup>1</sup>

Now the dominance hierarchy as individual health determinant discovery is a paradigm-establishing discovery in medicine (if medicine is ever able to recognize it!<sup>3</sup>), akin to plate tectonics in the Earth sciences, Newtonian mechanics in physics and evolution in biology, but it naturally leads to a follow-up question: Why?

Is there an evolutionary advantage, for mammals say, to suffer severe individual health effects from the intra-species dominance hierarchy? Otherwise, how has individual health vulnerability to dominance hierarchy survived on the evolutionary time scale? Is there a use or a need for individual health vulnerability to dominance hierarchy in terms of species survival, or is it simply a remnant of pre-insect-divide or colony-forming cells evolution?

A first glance would suggest that the human species, for example, cannot possibly benefit from having individual health materially and negatively affected by society's dominance hierarchy. But is this the correct conclusion?

I think not.

What is the most successful nervous-system-bearing animal species on Earth, in terms of both number of individuals and total biomass, and in terms of its transformative impact on the biosphere? Answer: Ants.<sup>4</sup> And the most successful large mammal? Humans.<sup>5</sup> Both live in highly hierarchical societies.

What is the sustaining biology of a highly hierarchical society of mammals? The individual must accept his/her place. All-out competitiveness of equal individuals (like a bar fight) is a recipe for disaster and does not lead to a highly stratified hierarchy. Pumped individuals who are and feel equally strong do not spontaneously organize into a stratified dominance hierarchy.

The built-in individual health vulnerability to dominance hierarchy is the biological (bio-chemical-metabolic) mechanism that sustains a positive feedback able to spontaneously generate a highly stratified dominance hierarchy.

If you are and feel sick from being dominated, you are not going to fight back. You are going to accept your place. The species is happy to have hoards of unhealthy individuals who will die young having spent their days doing the grunt work. What better way to stratify a successful species?

The impact on individual health also plays another key role, in addition to providing the feedback for stratification. It provides a needed mechanism of self-destruction for individuals who grow out or fall out of docility and compliance.

In a highly stratified society, individuals who cannot function must be eliminated, or they become a destructive force against the hierarchy. The police and jails would never be enough to achieve this without the built-in individual health vulnerability to dominance hierarchy.

As soon as the individual wants out and senses that there is no out, the individual self-destructs — rather than go on a destructive rampage, most of the time. This is called cancer and heart disease. It prevents the destructive rampage of the disillusioned individual and provides a natural end at the completion of the individual's cycle of utility to the hierarchy, to the species.


No wonder anarchists are so few and far between! But as with any positive feedback-driven system, it is inherently unstable.<sup>6</sup>

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1. "[The influence of social hierarchy on primate health \(Review\)](#)" by Robert M. Sapolsky, *Science*, 308, p.648-652, 2005. (and references therein) [[↗](#)] [[↗](#)]
  2. "[Anti-smoking culture is harmful to health: On the truth problem of public health management](#)" Denis G. Rancourt, 2011. [[↗](#)]
  3. "[Is establishment medicine an injurious scam?](#)" Denis G. Rancourt, 2011. [[↗](#)] [[↗](#)]
  4. "[Is the burning of fossil fuel a significant planetary activity?](#)" by Denis G. Rancourt, 2010. [[↗](#)]
  5. "[Collective intelligence does not imply individual intelligence: Technology does not come from geniuses](#)" Denis G. Rancourt, 2011. [[↗](#)]
  6. "[Institutions build hierarchy between politico-cultural re-normalizations](#)" Denis G. Rancourt, 2011. [[↗](#)]
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