Like Harrison Searles (2015), we're confident that modern evolutionary science provides a useful toolkit for economics and public policy (Wilson and Gowdy 2013; Wilson et al. 2014). Some progress has been made advancing a new paradigm, including a recent conference titled “Complexity and Evolution: A New Synthesis for Economics” (link). Searles rightfully calls attention to the pioneering work of Friedrich Hayek, who was ahead of his time in his emphasis on cultural group selection and the distributed intelligence of human society. We are in a much better position to approach these topics now than during Hayek’s time. We think that modern multilevel selection theory and complexity theory lead to conclusions different than those that Searles and others draw from Hayek’s work (Wilson 2015; Wilson and Gowdy 2015).

The crux of Hayek’s (1988) argument about human morality—endorsed by Searles—is the following:

1. We are genetically adapted to function in small social groups.
2. There is a “natural morality” (Hayek 1988, 12) that fosters cooperation and other forms of functional organization in small groups.
3. This natural morality breaks down in large-scale society. Cultural group selection has resulted in a moral system based on rules of “property, honesty, contract, exchange, trade, competition, gain,
and privacy” (ibid.), a moral system that Hayek regarded as the key ingredient of capitalism and large-scale cooperation.

4. We are destined to live with both moralities, but in order for us to maintain the extended large-scale societal cooperation we must restrain the “natural morality.” The egalitarian instincts lead us to act against the intelligence of market competition for creating social order.

We believe that modern multilevel selection and complexity theory is more consistent with the following argument (see Wilson 2015 for a concise book-length summary):

1. For groups of any size to function well, members must coordinate their activities and provide services for each other.
2. These ‘for the good of the group’ behaviors are inherently vulnerable to passive free-riding and active exploitation, activities that provide a relative fitness advantage within groups.
3. Most non-human social groups display a mix of group-advantageous traits that evolve by between-group selection and group-undermining traits that evolve by within-group selection.
4. The balance between levels of selection is not static but can itself evolve. When mechanisms evolve that suppress disruptive forms of within-group selection to a sufficient degree, the group becomes a ‘super-organism.’
5. The transition from groups of organisms to groups as organisms has occurred repeatedly during the history of life and includes nucleated cells, multicellular organisms, and social insect colonies (Maynard Smith and Szathmáry 1995; 1999).
6. The genetic evolution of our species at the scale of small groups qualifies as a major transition. Humans in groups at small scale are much more cooperative than other primate species because bullying and other disruptive forms of within-group competition can be so effectively suppressed (Boehm 2012).
7. The entire package of traits that set humans apart from other primate species, including cooperation among unrelated individuals, the capacity for symbolic thought, and a greatly enhanced ability to transmit learned information across generations, probably followed from the major transition.
8. When the scale of human societies started to increase with the advent of agriculture and dense concentrations of natural resources, our genetically evolved ability to suppress disruptive forms of competition within groups broke down. Cultural group
selection was required to evolve new mechanisms of co-
ordering and social control that interface with our genetically
evolved mechanisms. Genetic evolution also continued during
this period and the two modes of evolution interacted with each
other (gene-culture co-evolution).

9. Archeology and history provide a fossil record of gene-culture
coevolution that is beginning to be studied from an explicitly
evolutionary perspective (see, e.g., Turchin 2006; 2010; Turchin
et al. 2013).

10. Multilevel cultural evolution continues to operate in the present.
The most successful large-scale societies are those that manage
to coordinate activity and suppress disruptive forms of within-
society competition. Large-scale societies that are dominated by
small groups of elites tend to fail at the societal level (see, e.g.,
Acemoglu and Robinson 2012; Pickett and Wilkinson 2010). The
basic principles of multilevel selection are scale-independent.

11. The challenge for becoming “wise managers of evolutionary pro-
cesses” (Wilson et al. 2014, 396) is to scale up the coordination
and social control mechanisms that take place “naturally” at the
scale of small groups—although even small groups can break
down when the appropriate conditions aren’t met (Wilson et
al. 2013). Real villages provide a blueprint for the global village
(Wilson and Hessen 2014).

12. Researchers including Peter Turchin, Daron Acemoglu, and
Elinor Ostrom (Ostrom 1990) have shown how societies
throughout history have succeeded and failed in achieving that
‘scaling up,’ through complexly negotiated institutions (generally
governmental, and variously democratic), and ‘rules of the
game’—offering a set of best practices that can be brought to
bear in continuing that upscaling.

A comparison of the two arguments reveals a degree of overlap. Hayek got
some things right. But the second argument does not fall into any current political
camp, including the camp that often claims support from Hayek’s ideas. We
therefore suggest dropping terms such as “evolutionary left” as a first step toward
acknowledging that new paradigms cannot be shoehorned into old ideological
categories. In our view, the new evolutionary paradigms promise to transcend the
old ideological categories. We look forward to continuing to interact with scholars
such as Searles to work out the implications of the new economic paradigm based
on complexity and evolution that Hayek pioneered.
References


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