Not Simply Construction: Exploring the Darker Side of *Taxis*

GUS DIZEREGA

P. O. Box 432
Sebastopol, CA 95473
United States

Email: gdizerega@gmail.com
Web: http://dizerega.com

Bio-Sketch: Gus diZerega is an independent scholar whose most recent book is *Faultlines: The 60s, the Culture War, and the Return of the Divine Feminine* (Quest Books, 2013). He has also published many articles on complexity, spontaneous order, democracy, liberalism, civil society, environmentalism, and interfaith issues.

Keywords: civil society, collectivism, community, eusocial, Hayek, individual, individuality, meme, Michael Polanyi, organism, organization, slime mold.

> "The main business of humanity is to do a good job of being human beings, not to serve as appendages to machines, institutions, and systems."
>
> — Kurt Vonnegut, Player Piano (Mystic Michael)

OVERVIEW OF THE ARGUMENT TO FOLLOW

F. A. Hayek and Michael Polanyi's distinction between spontaneous and constructed orders is one of the most important insights in social science. Many of us have spent years exploring, expanding, and deepening this distinction, mostly with regard to spontaneous orders. Constructed orders have been far less explored from this perspective though they are often analyzed from others. Within Hayekian circles they are usually treated simply as human tools or machines, relying on human knowledge and intent to do what they were constructed to do. When that knowledge is lacking they fail. Without in any sense denigrating the important work done on spontaneous orders and *cosmos*, this neglect is unfortunate.

Hayek generally included *taxis* with simple phenomena that can be understood linearly and reductively, contrasted to complex phenomena which cannot, and about which only what he called "pattern predictions" could be made. To be sure, instrumental organizations start off as simple phenomena, but key elements are people, who are not simple. If organizations persist for long important emergent characteristics of their own arise. Individuals are not independent of their organizational environment nor are organizations simply tools serving human purposes.

In this sense organizations are not simply constructions as organizations can develop emergent qualities independently of their creators' intentions. They possess a degree of independence from their creators and members. Far from being simply tools for achieving human purposes, it often seems as if organizations are acting at least somewhat independently of human intentions.

Modern biology offers additional insights on how such collective entities are human creations that can reverse their relation to human action, making human beings their tools and resources. Organizations can actively shape their environment to some degree independently of their creators' intentions.

I develop this argument beginning with the puzzle that members of organizations frequently act differently and have different values than before they joined. Analyzing this clarifies organizations' emergent capacity to become somewhat independent actors in the human world, adapting on their own terms to the spontaneous order in which they exist.

We live in a world shaped at every level by organizations. Nearly all of us spend our working lives within them. They shape our politics, our religions, and many of our social activities. In many cases they are the intermediaries between human actions and the spontaneous orders and larger *cosmos* these actions generate. Far from being simply tools for achieving human purposes, organizations can act at least

somewhat independently of human intentions. And not always to our benefit.

Like Baron von Frankenstein, it often seems we are in danger of being attacked by our own creations, which appear to have taken on a life of their own. I argue this suspicion is well founded.

An opening puzzle

To develop this claim, I begin with a puzzle. Why do so many normally ethical people act unethically when acting as members of large organizations?

For centuries the Catholic Church's hierarchy covered up cases of sexual abuse by parish priests. In 900, the monk Peter Damian wrote the Pope about the need to address the abuse of underage boys in the Church (Damian, 1982). There is no historical record of significant action being taken. More recently we know once complaints about predatory priests reached a certain intensity they were transferred elsewhere, but their new parishes were often not notified about their past transgressions. Which resumed.

In 2011, after a major sexual scandal in Germany, the Church promised "full transparency" in investigating what happened. Two years later the Church refused any cooperation. The promise would not be kept (Hans, 2013). I once had a student who had played an unwilling part as a young victim in a major Irish scandal (Cullen, 1997). For over 1000 years the Church has a pattern of failing to protect children.

Recently we learned of similar behavior within the Boy Scouts. While the Scouts are not a church, their more modest claims are equally infused with explicit moral content incompatible with abusing children. For nearly a century the Scouts amassed files, the better to keep suspected abusers from rejoining. Neither police nor parents had access to their files (Naziri, 2012). However their file system failed to prevent abusers from re-entering the organization (Ross, 2012).

The Scouts' existence depends entirely on parents trusting them with their children. No one fears for their soul if they leave. Perhaps as a consequence once the issue became public they acted decisively. The *New York Times* reports the Boy Scouts today are "regarded by many experts as a national leader in the field. It has conducted criminal background checks on all volunteers since 2008 and since 2010 has mandated any suspicion of abuse be reported to police" (Naziri, 2012). The Catholic Church is not so vulnerable.

What is most interesting to me about these cases are not the predators themselves. Beyond the realms of psychology, law enforcement, and the victims and their families, their behavior is not all that interesting. What *is* interesting are those people who *covered up* for the abusers.

This pattern is not confined to child abuse. For example, while police corruption demonstrates many police officers share the weaknesses of others who turn to crime, over and over again we also encounter a code of silence by officers otherwise innocent of wrong-doing. In a study involving police academies in 16 states, 79% reported a "Code of Silence" is fairly common. Fifty-two percent, *a majority*, reported its existence *did not trouble them* (Trautman, 2000). Presumably personally devoted to enforcing the law, many police consistently cover for their dishonest colleagues. In all these cases and many more the innocent cover for the guilty.

So far as we know, most individuals in responsible positions within these organizations were innocent of wrong doing before they decided to cover-up *other* people's crimes. These crimes violated the basic values for which these organizations stood, and did so in the most direct way. The once innocent covered up the guilty in institutions established to serve values violated by the guilty. In so doing they became guilty themselves. But the usual motives of money, power, or sex were apparently not much involved in these second-order crimes.

When the *organization's* existence was threatened, as with the Scouts, decisive remedial action was taken. Such a threat has yet to materialize for the Catholic Church or police departments. If the argument to follow is valid, when it does, it will.

I: *COSMOS* AND *TAXIS*

The insights about emergent order pioneered by F. A. Hayek and Michael Polanyi demonstrate how what Hayek called a "*cosmos*" developed characteristics independent of those acting within them. Organizations, or "*taxis,*" were left as taken for granted tools reflecting human intentions and capacities. Our first step will be to revisit the *cosmos*/*taxis* distinction, but with an emphasis on emergent qualities within *taxis*.

Equality and inequality

Taken from the ancient Greek, a *cosmos* facilitates the simultaneous pursuit of independently chosen projects, even ones that would appear contradictory if pursued within a *taxis*, which is characterized by a hierarchy of goals or priorities. Unlike within a well managed *taxis*, within a *cosmos* multiple projects cannot be arranged in a hierarchy of importance and can even contradict one another.

In the social world a *cosmos* takes two forms. It can be ordered by a narrow set of values generating specific feedback signals, or it can arise from overlapping influences arising out of multiple networks of cooperation (diZerega, 2013). Initially used by Polanyi and Hayek to describe science and the market, the term "spontaneous order" best refers to the first kind of *cosmos*. Its patterns reflect values such as comprehensibility in language, instrumental utility reflected in market prices, agreement among peers about the physical world in science, or agreement among peers about values applying to a community in democracy.

In the second, more complex case no narrow set of values coordinates action. In the modern world feedback signals arising from different spontaneous orders merge within the more encompassing *cosmos* of civil society. Collectively these signals help people make the decisions needed to achieve their goals more effectively. But no single signal dominates. Each member attends to the feedback signals they wish, as much as they wish, and ignores the rest. Both spontaneous orders and civil society are emergent orders, but civil society incorporates more complex values and within it multiple sometimes contradictory feedback signals shape the order that arises.

My agreeing to hike with someone this weekend takes place within civil society but cannot be understood in terms of any one spontaneous order. Price feedback from the market helped me decide whether I could afford the outing, and where to go. Perhaps observations I could make during the hike would assist ecological research I hope will result in a scientific paper. I might choose a state park. The first is the spontaneous order of the market, the second, of science, and the third, of democracy. But I also might include the value of our time together, my love of the out of doors, my desire for some exercise, and other factors not reflected in feedback from any spontaneous orders. The market, science, and democracy influenced my decision but the pattern emerging within civil society cannot be reduced to any one of them, or even to all of them together.

Equality of status describes the formal relation between people in civil society, as it does in spontaneous orders. This is why I use the term "civil society" in preference to Hayek's more general term "society," which lacks such implications (Hayek, 1973, p. 47). All societies are complex emergent phenomena, but only civil society is compatible with the fullest development of spontaneous orders because it maximizes the range and depth of cooperation possible among status equals. Ideally, and to a large extent practically, everyone's projects are subject to the same procedural rules and everyone is free to pursue whatever project they wish within that framework. Both civil society and spontaneous orders are a *cosmos* because the network of interlocking relationships they generate facilitate the successful pursuit of many independent projects that cannot be arranged in an ordered hierarchy. Many spontaneous orders can exist within civil society, as can many hierarchies.

Similarly taken from ancient Greek, a *taxis* is established through deliberate construction seeking a specific goal. It is a teleological order existing for a purpose or hierarchy of purposes. As an instrumental organization a *taxis* can range from two people organizing their time and other resources for a weekend's outing, to complex organizations of millions arranged in a hierarchy, the better to attain its primary goal, as with an army fighting a war. Some organizations are ephemeral, such as that weekend outing. Others can last millennia, as with the Catholic Church.

Inequality of status is the formal relation between people within a *taxis*. A hierarchy arises based on each member's importance in helping the organization attain its goals. Civil society as well as particular spontaneous orders will contain many such hierarchies, but will not be hierarchies themselves.

Power in *cosmos* and *taxis*

In this paper "power" means *making a difference*. Power can be narrowly directive, as when A tells B to do something. Power can also be indirect, as when A does something to avoid an expected reaction by B. Finally, power can manifest within and through a context where in order to attain their goal people must act in ways strengthening or maintaining values different from and even opposed to their own. The context has power because it makes a difference independently of the values held by those acting within it. I call this *systemic power*.

Power exists in a *taxis* in all these senses, but in a *cosmos* power exists only in the systemic sense, where it manifests as the unintended consequence of people's actions when they follow its rules. This power is a property of the system, not of those acting within it. Within spontaneous orders I call the values privileged by this kind of power *systemic bias* (diZerega, 2010). Far from being undesirable, systemic bias makes systemic feedback possible. But by reducing useful information to a single or small number of signals it also limits the context where it is helpful.

To succeed a *taxis* needs power to attain its goal. From two people dividing tasks for a road trip to the largest corpora-

tion or army, instrumental organizations have long proven their value as concentrations of focused power. They make a difference.

Instrumental organizations proved very useful in some contexts and not useful at all in others. Nineteenth Century business organizations' impressive successes in creating an industrial economy encouraged some people to advocate rational management replace "anarchic" or "wild" spontaneous orders, the better to guarantee achieving the goals they valued over those they did not. The most important examples were plans to centrally plan a nation's economy. When tried the results were disastrous.

First, as Hayek and Mises in particular are known for arguing, instrumental organizations cannot coordinate changing, uncertain, widely distributed, and often tacitly held and contextually dependent knowledge as effectively as can a spontaneous order. But this critique only explains *why* the task could not be done, it does not explain organizations' *redefinition* of their task in the face of that impossibility. This redefinition strengthened the organizations involved, making them instruments of despotic control *at the expense* of those they were created to help. In solving the puzzle of why the innocent so often shield the guilty in organizations this paper will also explain why this redefinition happened.

Successful in their appointed task or not, in a *taxis* power orders priorities and resources into a hierarchy of ends considered more or less important. While power almost never flows only one way, in effectively managed organizations beyond very small ones it mostly flows from the top down. Once a goal exists only in that way can the organization become a reliable tool to pursue it.

A spontaneous order creates a different pattern of power. The procedural rules shaping different spontaneous orders reflect the dominant interests shared by their participants. The spontaneous order generating modern science responds to different values than does that generating a market economy, and their rules differ accordingly. The feedback generated by those acting within these rules reflects a systemic bias to some degree independent of the values of the individuals involved. This feedback helps guide the plans pursued within a spontaneous order, strengthening its dominant values. It is no accident that science discovers new knowledge about the physical world better than the market, or that the market coordinates competing uses of steel and plastic in the economy better than can science.

Systemic bias goes beyond the patterns of cooperation they encourage. Success within a spontaneous order does not necessarily equal success from the actor's standpoint. For example, profit is a sign of success from acting within the market order. But even high profits do not necessarily mean those voluntarily paying for the enterprise believe they are better off because it exists. Mark Sagoff's example of a ski resort, profitable even though *every* person using it wishes it had never been built, is a persuasive example (Sagoff, 1988, pp. 50-57).[1]

Systemic tensions and contradictions

Most discussions of spontaneous orders emphasize they harmonize the often superficially conflicting and uncoordinated plans of those acting within them. This insight is importantly true, but it is one-sided. Similarly, organizations are treated as if they were simply tools for achieving human purposes. This insight can be true but even more one sided. In both cases the resulting abstract theoretical harmony can disguise very different realities. When a person or organization acts within multiple spontaneous orders, or in one along with an ecosystem, (which is also a cosmos), disconnected feedback signals for their complicate effective coordination. The signals point in different directions. A hi-tech company must adapt to the market and science. Usually the market matters most in the short run, science in the long. This is why in wisely managed firms R&D departments are under less pressure to contribute to current profits than other parts of the company. The resources spent in R&D are intended to expand future sales. If R&D is abandoned short-term profits will increase, but potentially at the expense of the company's long term viability. Likewise, a farmer must operate successfully within both the market and an ecosystem, making enough money to continue in business, but not by sacrificing the soil's fertility over the long run. The market matters most in the short run, the ecosystem in the long. Tradeoffs are unavoidable.

Finally there are tensions between organizations and the spontaneous orders in which they exist. The same feedback that guides and helps an organization succeed can also weaken and destroy it (Hayek, 1976, p. 128). An ecosystem works best when even those who had previously been successful must adapt to maintain themselves. The same point holds for social spontaneous orders. Consequently, the interests of organizations tend to be at cross-purposes with the spontaneous order of which they are a part (Hayek, 1979, p. 90).

These issues bring us to a final insight. The *cosmos* of civil society is the realm of individual choices across a broad range of different values compatible with peaceful relations with others. As David Hardwick succinctly defined it, civil

society is the "interdependent relationships of independent equals" (Hardwick, 2008). It is not coordinated by any particular feedback signal. *Because feedback is multiple, civil society constitutes the ultimate social realm of human freedom and wellbeing.*

Within this broad framework we turn to *taxis*.

People and *taxis*

Most organizations are ordered hierarchically in terms of people's utility for attaining their goals. However, people's reasons for joining an organization may have little to do with those goals. Members may want security, status, or income, choosing employment without regard to the organization's purposes. For them membership is a means, and their goals may not harmonize with those of the larger organization. The larger the organization, the more kinds of individual goals will often need to be harmonized, or at least neutralized, for them to serve the organization efficiently.

Whenever a tension exists between participants' goals, and those of the organization as a whole, members' incentives pull them in two directions. On the one hand, 'self-interested individuals' rank their own goals more highly than those of the organization. It is as much a means to their ends as they are to its. But this purely instrumental relationship holds only as far as the 'self' is independent from its organizational environment. This independence is rarely complete.

When membership provides benefits such as security, status, or a sense of giving their lives meaning, over time many people will reframe their less vital goals, the better to harmonize them with the organization. To the degree membership is important, a person joining an organization becomes a *different person*, with changed values and a different sense of self. Becoming a loyal member of a team or of the military are classic examples of this transformation.

When people's self-identity is tied to membership, for them the organization becomes a good in itself. However from the organization's perspective the members' value remains purely instrumental. The organization becomes a context within which people find meaning, but from the organization's point of view people possess no intrinsic meaning at all. Everything and everyone is instrumental to its purpose, a problem to be solved, or irrelevant.

There is another twist to the relationship between a member and an organization. If individuals regard an organization as important for attaining personal goals distinct from the organization's initial goal, but depending on its continued existence, they will treat the organization as *more important* than its original mission. Such people will try to redefine its primary goal as survival, the better to serve *their* ends.

If this occurs the organization may still pursue its original mission, *but only in ways conducive to growing or at least maintaining the organization itself*. Insofar as it contributes to maintaining the organization's existence the original goal remains. The organization remains a *taxis*, but a *taxis transformed*, as its original end becomes a means and its existence as a means becomes its end.

For example, upon helping achieve a cure for polio the March of Dimes found a new and (perhaps not coincidentally) more intractable problem to solve: ending premature births. Once polio was conquered people within the organization wanted it to continue. Organizations are hard to create, and once created become vehicles for exercising power, giving them value distinct from fulfilling their original purpose. As my example makes clear this transformation need not be objectionable. But it can be.

As a system, the organization takes on a degree of independence from its creators and their purposes. People redefine their goals to harmonize with the organization's success, while as an institution of organized power the organization acts to maintain itself after its original reason for existence ends. People change when they identify with an organization, and once they do the organization changes them further. A new and somewhat autonomous system of relationships has established itself.

Hayek described this process in his "The Theory of Complex Phenomena:"

> The "emergence" of "new" patterns as a result of the increase in the number of elements between which simple relations exist, means that this larger structure will possess certain general or abstract features which will recur independently of the particular values of the individual data. . . Such "wholes", defined in terms of certain general properties of their structure, will constitute distinctive objects of explanation for a theory…" (Hayek, 1967, p. ?)

I would add the increase in numbers also *changes the context of relations between them*. This change then reacts back reflexively on the elements, changing them in turn. The issue is more complex than just numbers.

Organizations are not simply constructions serving human goals. They help define those goals. As Paul Lewis and Peter Lewin observe, Hayek's insights account for downward

causation, from the whole to the parts (Lewis and Lewin, 2015).

II: COLLECTIVISM *TAXIS* AND COMMUNITY

To better understand *taxis* we need to distinguish it not only from a spontaneous order, but also from those groups of people that come together due to certain shared values, but under most circumstances cannot be understood as organizations. Within this paper I call these groups *modern communities* because, being rooted in civil society, they exhibit something relatively new to human experience. When we understand the differences between spontaneous orders and communities we will also better understand the logic of *taxis*.

Community and civil society

By "community" I mean a set of relationships where members' status exists due to their common membership, but normally the community itself does not exist to pursue any specifiable goal. With thousands of others I live in the community of Sebastopol. We share common legal and political status, and can become huffy when outsiders criticize our town. Usually our common status and interests do not enter into our thinking. But sometimes they do.

Historically communities existed within encompassing hierarchical orders in which their members also stood in hierarchical relations to one another. Stephen Toulmin described how in such cultures "masterless men" were considered a social and political threat (Toulmin, 1990). Opportunities for cooperation were limited and shaped by differences in status. Emerging civil society replaced this universal hierarchy with equality of status generating a polycentric network connected by increasingly anonymous relationships. Modern communities emerged within these networks.

Cooperation among equals can encompass larger or smaller parts of a person's social environment. Aldo Leopold made an important point in a charming way when he observed "A hobby is perhaps creations first denial of the 'peck-order'…" (Leopold, 1966, p. 187) Modern science grew from those who at its inception could have been described as hobbyists. Their interest in a common issue overrode social distinctions between them and they grew into a community exploring the nature of the physical world and largely regarded themselves as equals in this endeavor, even though the societies within which they lived were dominated by powerful hierarchies (Polanyi, 1962).

Some modern communities arose from the intentional and organized creation of a settlement. During this time organizational tasks were clear: create housing, roads, and the other institutions needed for a viable town. But once this was accomplished, residents pursued their own projects independently from one another and no hierarchy of goals existed in the absence of a supervening crisis such as a hurricane or earthquake. In these cases civil society grew out of what could once have been considered an organization, because once its tasks were completed the organization lost focus and dissolved.

In the American South for the most part a genuine civil society existed for Whites, particularly men, but slaves were excluded. Today in most things even foreigners are regarded as deserving equality under the law. Wherever equality of status exists, and to the degree it exists, civil society exists. It manifests as a web of relations, not a pyramid.

Along with Adam Smith and Karl Popper, Hayek described the most inclusive civil society as "Great" or "Open," which in principle can embrace all of humanity (Hayek, 1973, p. 2). It is characterized by abstract procedural legal rules that apply equally to all. There are basically three: that possessions are secure, that exchanges are consensual, and that promises are kept (Hayek, 1950, p. 153).

Property rights can be defined in different ways and still be able to be freely exchanged by contract. What constitutes a consensual exchange can be conceived in different ways. The rules of what constitutes a proper contract can be defined differently. Consequently whereas "civil society" can include humanity as a whole, it has been and likely will continue to be broken up into different communities defining the details of its basic principles differently. These smaller civil societies constitute political communities that establish the rules people must follow as they live there.

Hayek rightly distinguished civil society from community, although as we will see, they can overlap. "Community" implies boundaries as well as values. Members know who can be and who cannot be a member. There are residents of Sebastopol, and many more people who are not. Modern communities exist within civil society and for them relations between them and that society can be complex because community depends on *both* a "we" and a "them," whereas civil society is defined inclusively and abstractly. Community always implies boundaries between human beings.

Modern communities stand midway between Hayek's Great Society and organizations. They have boundaries but their members generally do not pursue any hierarchy of common goals. The only exception is when the community

faces a major crisis. Then the community becomes a temporary organization to address the threat, be it a fire, a storm, or a war. Within what Hayek termed "value communities" these crises might be a threat to shared values (Hayek, 1976, p. 151). Think of salmon fishermen or river rafters coming together to oppose a proposed dam. Once the threat is addressed, communities return to their previous form as networks of civil associations without a hierarchy of purposes

From this perspective civil society can be understood as a social ecosystem within which social evolutionary processes operate. The ecosystem model clarifies the otherwise complex issue of boundaries between "we" and "they." Hayek's description of the Great Society and civil society as it manifests within smaller communities stand in relation to one another much as the all-inclusive ecosystem of the earth stands to the ecosystems of a lake and a prairie.

In all these cases what counts as boundaries is determined by the questions asked. For some issues both lakes in the Pacific Northwest and their surrounding forests can be treated as separate ecosystems. Both are also powerfully impacted by salmon, who spend most of their lives in salt water. For questions about salmon the ecosystem may include lakes, forests, and even the Pacific Ocean.

Similarly, while communities have boundaries, their boundaries often overlap or interpenetrate, as with marriages between families or biologists and mountaineers between nations. As part of a *cosmos* communities stand in no invariant hierarchy in relation to one another. To the degree their members are free to enter into equal relationships on mutually agreeable terms, civil society includes diverse and overlapping communities.

Some form of democracy is most in keeping with the principles of civil society because equality of status at the public level is necessary to preserve it at other levels. Democracy is a Hayekian spontaneous order relying on votes as feedback (diZerega, 1989). While citizens possess equality of vote, other politically relevant inequalities can exist. Democratic relations of equal status are as interwoven in civil society as are market and scientific ones. The overall pattern of individual relationships arising among individuals, communities, and organizations within a context of equal status and voluntary cooperation describes civil society as a whole.

Because they rely on normative rules modern communities and civil society are both characterized by ethical relationships reflecting members' equal status. Having an ethic means utility does not trump all other values. Sometimes our desires *should* be overridden by principles demanding we refrain from doing what we otherwise might. When they conflict, within communities and civil society alike, the means normally trump the ends.

This logic works differently in organizations.

Collectivism and community

Hayek came close to grasping how organizations differed from civil society when he criticized "collectivism" in *The Road to Serfdom* (Hayek, 1945). He attacked "collectivism" as a threat to freedom, arguing every collectivist system "has two central features . . . the need for a commonly accepted system of ends of the group and the all-overriding desire to give to the group the maximum of power to achieve these ends. . . ." (Hayek, 1944, p. 146) Individuals are valued to the degree they serve the collective. Further, Hayek held that "To act on behalf of a group seems to free people of many of the moral restraints which control their behavior as individuals within the group" (Hayek, 1944, p. 142) When Germans were inducted into the SS Heinrich Himmler admonished them "to be prepared at any time to risk our own individual lives for the life of the collective whole. . . ." (Rudgley, 1998, p. 136).

As war demonstrates most profoundly, when the well-being of one's favored group is at stake, "all is fair." The reasons are complex, but the result is not. When the group feels seriously challenged members tend to treat those outside it as real or potential allies, real or potential opponents, or irrelevant. For example, when responding to Osama bin Laden's attacks, George Bush (2001) said: "Either you are with us, or you are with the terrorists." He was echoed by Hillary Clinton: "Every nation has to either be with us, or against us." (source??, 2001) There was nothing unusual in these sentiments. Thucydides described identical reasoning in the Athenians' brutal rejection of the people of Melos request for neutrality during the Peloponnesian War (Thucydides, 1951).

In Hayek's view, the basic principle of collectivist organization is "the end justifies the means," which "makes collectivist morals so different from what we have known as morals that we find it difficult to discover any principle in them, which they nevertheless possess." (Hayek, 1944, p. 146) Because ethics limits power, collectivist groups cannot truly be ethical, and individuals in these groups must subordinate their own ethics to serving them. By subordinating individual conscience to the goals of the organization, collectivism eliminates any role for what we generally consider ethics. Utility takes its place.

Collectivism *must* elevate power over ethics because ethics applies to individuals or groups of individuals *distinct* from their contribution to a collective goal. As is also said about friendship, ethics can be very useful, but if the only reason you act ethically is because you find it useful, you are not ethical. Membership in a collectivist organization supplies most of the benefits of belonging and support found in communities. It may even provide some in greater quantity, particularly the feeling of solidarity. But it does so only so long as the person is useful to the group. It's power must be served.

In communities status arises from membership; in collectivist groups status arises from utility. In communities membership trumps utility. In collectivist organizations utility trumps membership. Community is polycentric, with many independent centers of action pursuing independently determined ends. A collectivist organization is hierarchical, with one center claiming authority to subordinate all subsidiary goals to serving an over arching purpose.

In times of crisis such as war or natural disaster, when virtually everyone agrees on what must be done, communities can become temporary organizations and take on collectivist traits. Feelings of solidarity become stronger because of the impact of external threats (Solnit, 2010). But the unsettling amorality Hayek associated with collectivism also appears when members see themselves as parts of a giant enterprise. Dissidents become traitors.

After the threat passes, unity of purpose dissolves as members again become more loosely linked. What often remains is a captivating memory of former solidarity as well as regrets for abusing fellow members, as happened to Japanese Americans during WWII. Those regrets and fond memories of unity are two sides of the same coin, the bad and good dimensions of finding oneself a devoted member of a large enterprise.

Hayek targeted the powerful collectivist political organizations of the totalitarian right and left in *The Road to Serfdom*. But the problems he attributed to collectivism go deeper. They exemplify the pure logic of instrumental organization. All organizations seek the power to realize their ends. Good leaders value their members for their ability to assist them. What checks apply to this logic are not whether the goals are good or bad, but how limited they are. How far can the organization go in disciplining dissident or otherwise unsatisfactory members and how much can it treat non-members as means to its ends or obstructions to be removed. There is a reason collectivist movements of both left and right like uniforms: the military is a completely collectivist organization. Uniforms have a powerfully transformative impact on many people's sense of personal identity. War is a powerful expression of collectivist mentality: everything is a resources, an enemy, or irrelevant. *The logic of collectivism is the pure logic of taxis*.

And yet collectivism depends on a moral sense to exist, as do other organizations. But it is a morality transformed from that applying to private relations and civil society.

Ethical transformation

In a well-managed organization, and some falling short of that, members view themselves as participating in a common culture, sharing important experiences, values, and loyalties compared to those on the outside. They become a "we," and those outside a "they." They share this quality with communities, but in a different context.

In a classic experiment conducted in 1954, boys at a summer camp were divided into two groups, the Chiefs and the Rattlers. The groups were encouraged to bond internally and then compete with one another. In a short time hostility arose between the groups including each being sure of the other's severe character flaws, despite there having been no significant prior differences between them.

For my purposes the experiment illustrated three points. First, if members of a group compete with each other, the group will cease to function effectively as a unit. Loyalty matters. Second, if members of a group compete with an opposing social unit, the group will become internally cooperative, and function as a cohesive social unit. Solidarity matters. Third, defining ourselves as members leads to devaluing nonmembers, especially competitive ones (Muzafer, 1988).

As studies of cognitive dissonance show, people often modify their initial perceptions to fit better with their new identities as group members (Cooper, 2007). Within an organization it is often easier to change one's evaluation of a troubling situation than to change the situation, and so there appears to be a powerful human predilection to harmonize one's views in favor of the organization of which one is a part. Members redefine their goals, bringing them into greater harmony with one another and with the organization. This sense of connection normally feels good. I often asked my students how many had been on a sports team and seen a team member cheat. Many hands went up. I then asked how many had reported the infraction to an umpire. No hands went up. Or remember the ease with which many Americans began calling French fries 'freedom fries' and considered the

French effeminate when they did not support our attacking Iraq.

For another example, in the famous Milgram and Stanford 'prison guard' experiments the numbers of subjects inflicting abuse were dramatically higher when they participated in the most hierarchical contexts farthest removed from contact with the person being mistreated. In addition, the greater the apparent authority of their 'superior' the greater the pattern of abuse (Bond, 2014, pp. 114-5). Most organizations are hierarchical and authority is ultimately concentrated at the top. This tendency for hierarchy and distance to override ethics seems if not innate, then at least very deeply rooted.

The more an organization makes strong moral claims upon its members, and its claims are accepted, the more easily they can override conflicting ethical concerns among members. In particular, when collectivist organizations seek universal abstract moral goals while denying the moral equality of those not sharing those goals, many members easily subordinate ethical relations with concrete people to abstract priorities. A kind of pragmatic nihilism results, usually disguised in utopian or apocalyptic moral language.

In such organizations the ultimate achievable value becomes the power to dominate others. Only then might those abstract universal goals to be attained over opposition. Ethical limitations on power are treated as inhibiting an even greater good.

Moral inversion

Hayek argued collectivist morality was not really morality at all. This insight is an important part of solving the puzzle of why the innocent covered for the guilty. When analyzing the amoral totalitarian movements of the 20th century, Michael Polanyi argued "modern nihilism is not a form of moral laxity." On the contrary, it is "part of a comprehensive moral protest that is without precedent in history" (Polanyi, 1969, p. 4). As Polanyi explains, "To the typical modern revolutionary the degree of evil he is prepared to commit or condone in the name of humanity is the measure of his moral force" (Polanyi, 1969, p. 44). Such domination oriented nihilism can assume the external trappings of any desirable goal, be it religious, ideological, or scientific. It is as true of the 'Muslim' ISIL today as it was of the old Communist Parties of Polanyi's time. He termed this phenomena "moral inversion" (Polanyi, 1969, p. 19).

Many people eventually recoil from a totalitarian movement's demands and reject it. However, Polanyi observed that after returning to genuinely moral beliefs they "will still feel that their inversion had been a sign of a more intense passion for social justice. And in a sense they are right. Unfeeling people would have remained immune to moral inversion because they had little social zeal seeking active manifestation." (Polanyi, 1969, p. 44). Moral inversion is central to totalitarian movements because it fuels the intense passions energizing them.

In the old Soviet Union, and its satellites, when Party members still believed a proletarian paradise could arise from their efforts, many communists remained loyal even when falsely accused of serious crimes, imprisoned, and sentenced to death (Polanyi, 1969, p. 30). They believed the Party erred in condemning them, but such mistakes should not be allowed to get in the way of its historic mission. Polanyi quoted Miklós Gimes, a prominent Hungarian Communist later executed by the Russians for supporting the Hungarian Revolution (Polanyi, 1969, p. 21):

> Slowly we had come to believe, at least with the greater, the dominant part of our consciousness, that there are two kinds of truth, that the truth of the Party and the people can be different and can be more important than the objective truth, and that truth and political expediency are in fact identical. . . . if the criteria of truth is political expediency, then even a lie can be 'true', for even a lie can be momentarily expedient; even a trumped-up political trial can be 'true' in the sense that even such a trial can yield important political advantage. And so we arrive at the outlook which infected not only those who thought up the faked political trials but often affected even the victims.

This phenomenon cuts across ideological and religious divides. It has reappeared in America today, particularly within the religious dimension of the political right. Christian theocrat Rick Joyner of the New Apostolic Reformation explained Godly rule will be (Joyner, 2007, p. ?):

> freedom even greater than anyone on earth knows at this time. At first it may seem like totalitarianism, as the Lord will destroy the antichrist spirit now dominating the world with "the sword of His mouth" and will shatter many nations like pottery... the kingdom will move from a point of necessary control while people are learning truth, integrity, honor, and how to make decisions, to increasing liberty so that they can.

"The Family" is a Christian dominionist group with powerful ties to Senators and Representatives in Washington. Jeff Sharlet quotes Doug Coe, their 'spiritual' leader (Sharlet, 2009; 2008; 2003)

> You know Jesus said You got to put Him before father-mother-brother-sister? Hitler, Lenin, Mao, that's what they taught the kids. Mao even had the kids killing their own mother and father. But it wasn't murder. It was building the new nation. The new kingdom.

Movements in many ways similar to the Twentieth Century's totalitarianism characterized the Christian moral absolutism that periodically convulsed the Middle Ages. Polanyi argued interpretations of Old Testament prophets combined with the New Testament's apocalyptic message encouraged "a series of chiliastic outbursts in which the inversion of moral passions into nihilism made its first appearance" (Polanyi, 1969, p. 4). Because "no society can live up to Christian precepts, any society professing Christian precepts must be afflicted by an internal contradiction, and when the tension is released in rebellion its agents must tend to establish a nihilist Messianic rule" (Polanyi 1969, p. 5).

Moral inversion arises from elevating a great moral value above all individuals, and so above all genuine morality. Individuals become mere means subordinated to the end, which however noble, depends on seeking overwhelming power. The greater the goal the greater the risk of moral inversion. As ideologies Fundamentalist Christianity, ISIL, and Marxism-Leninism have little in common. But when their followers' moral energy seeks power to accomplish universal collectivist goals they are remarkably similar.

Focusing on different dimensions, Polanyi and Hayek recognized moral passion floating free from every relation that made it morality becomes a justification for power and domination. Because the goal can never be achieved. collectivist organizations pursuing utopian goals must by their very nature elevate power as their supreme practical goal.

Not just collectivism

I have discussed collectivism at such length because *collectivist organizations exemplify the pure logic of taxis.* It applies in weaker form to other organizations based on the extent of their claims, how they frame them, and their freedom from oversight. A continuum exists with collectivist organizations on one end and small temporary and relatively unimportant organizations, such as planning that weekend hiking trip, on the other.

In the economy today no matter how ruthless their economic competition, killing people to enhance the bottom line is not usually a deliberate practice, although organized crime has no such compunctions. But this rejection of violence is a function of the context within which organizations operate rather than their internal logic. When free from oversight a very different pattern emerges.

The world's first joint stock corporation, the Dutch East India Company, engaged in voluntary transactions with its customers. One of its most famous products was nutmeg from the island of Banda. As with companies today, their customers could not be forced to buy and so engaged in mutually beneficial transactions. But there is more to the story.

The Dutch East India Company enjoyed a monopoly over trade in East Asia. With control over nutmeg's availability securely in their hands and the inhabitants of the islands excluded from civil society, the logic of seeking wealth before everything else ruled. "When some Bandanese failed to appreciate the [company's] right to control the nutmeg trade . . . the then head of the Company, Jan Pieterszoon Coen, ordered the systematic quartering and beheading of every Bandanese male over the age of 15" (Thring, 2010; Coolhaas, 2015)

Everything in the Dutch East India Company's environment was a resource for its use, a problem to be overcome, or irrelevant. The natives of the Banda Islands started out being useful until control over their resources was secured. They then became irrelevant until they objected. Once they became problems, they were slaughtered.

Today in some very large businesses practices are deliberately pursued that do eventually kill people, as the tobacco industry famously demonstrated (Herbert, 1997, p. 19). More recently it appeared when auto manufacturers did not report design flaws that if left unaddressed would kill people (Durbin, 2014). Nearly fifty years ago Ford Motor Company had information that if implemented at a cost of $11 per vehicle would decrease the possibility of the Ford Pinto from exploding. The company chose not to implement the design even though it believed doing so would result in 180 fewer deaths (Leggett, 1999). There is nothing unusual about this behavior.

Politically my case is easier to make because the correlation between starting wars and winning elections is well known. Morally the line between organized crime and many large corporations and political organizations is often difficult to draw(diZerega, 2013).

When moral utopianism is added to this logic the relation of *taxis* to totalitarian control becomes even more clear. The "war on drugs" framed reducing the use of drugs within an absolutist moral goal. To accomplish their goals 'drug warriors' sought to organize society to 'fight' and 'win' this 'war.' People became resources to be deployed, threats, or irrelevant. Innocents killed in mistaken raids are regrettable but acceptable "collateral damage." Suppressing medical and scientific research that might uncover beneficial uses of banned substances was justified as helping pursue the war more single-mindedly. The police were militarized and the logic of the battlefield applied within civil society. Drug warriors sought power to prevail against all obstacles because short of totalitarian control their goal is unattainable (drugs are even available in prisons) (Purdy, 1995).

We see here the same patterns of moral inversion found in totalitarian movements, only more circumscribed because of external institutional and environmental limitations. At some point along this continuum an organization transforms from being a means to achieve its creators' goals to becoming an end in itself. Something new emerges.

Human beings can adapt general rules to reflect subtle nuances and creative insights within complex relationships, usually in acceptable ways. Most people do not regard others as nothing but objects for their own benefit, opponents, or irrelevant. Those who do are called sociopaths, a pathological condition. An organization has simpler goals, and looks at all around it in terms of their utility alone. The moral tension existing between human beings and the organizations they create is inescapable.

People and the organizations they create to pursue their goals influence one another, but when membership is important to people, large organizations influence most individuals more than they influence the organization.

III. ORGANIZATIONS AS ORGANISMS

When the organization becomes an end in itself, it selects for people who are comfortable with that goal. Human values take second place to organizational well-being. It was better for Ford that 180 additional people die than that their cars sell for $11 more. It is difficult to imagine any normal human being benefiting from such a decision. If organizations can develop independence from their founders and shape the actions of their parts/members to serve their prolonged existence, we are observing a kind of emergent individuality. The organization becomes more like a living organism subordinating all values to its survival than an instrument for doing our will. As it turns out, current discoveries in biology give us an important insight as to the nature of organizations as life forms.

Biology and individuals

Hayek ultimately abandoned the common distinction between the natural and social sciences for one distinguishing sciences exploring "simple" phenomena from those studying "complex" phenomena (Caldwell, 2005, p. 284) From this perspective the social sciences share much in common with biology, and Hayek emphasized this similarity. He explained the theory of evolution, so foundational to biology, had been developed during the Scottish Enlightenment to explain how societies formed and changed (Hayek, 1973, pp. 22-3). The same kind of relationship also exists with respect to ecology, which as Aldo Leopold observed, stands at "right angles" to evolution. (Leopold, 1970, p. 189). Evolution traces changes in species over time whereas ecology focuses on stable and slowly shifting relationships between species without any necessary change in the species involved. Taken together, ecology and evolution describe the cosmos of life.

Geerat Vermeij a leading biologist, compares how life evolves and flourishes with the spontaneous order of science:

> The universe works, and life works and persists, because we co-construct our universe through the combined process of modification and selection. Adaptation, the process resulting in a better fit between entities and their environment, is universal among living things, which create and improve hypotheses about their surroundings much as scientists propose and test hypotheses explaining observations and regularities in the world (Vermeij, 2004, p. 2).

Biologists have often treated individual organisms as equivalent to actors in the social realm. (Heinrich, 2004). Ecology is often compared to economics (Worster, 1994; Vermeij, 2004). Participants follow procedural rules, and do not need be aware of these rules, which coordinate their actions in unintended patterns (Hayek, 1973, pp. 74-6). In biology's more extreme formulations of this perspective, life's complexity is reduced to the 'rational behavior' of genes seeking to replicate themselves (Dawkins, 1989).

Less persuasively, Hayek elaborated that the "organismal analogy" was natural when people looked at complex societies because "organisms were the only kind of spontaneous order with which everybody was familiar." Hayek argued or-

ganisms were spontaneous orders (in a more inclusive sense of the term than I am using for social analysis) but they were "spontaneous orders of a very special kind" such that the analogy "becomes more misleading than helpful" (Hayek, 1973, p. 52).

According to Hayek the major difference between the spontaneous order of an organism and the spontaneous orders of society is (Hayek, 1973, pp. 52-3):

> In an organism *most* of the individual elements occupy fixed places which, *at least once the organism is mature*, they retain once and for all. They also, *as a rule, are more or less* constant systems consisting of a fixed number of elements which, *though some may be replaced* . . . retain an order in space readily perceivable with the senses. They are . . . orders of a *more concrete kind* than the spontaneous orders of society, which may be preserved although the total number of elements changes and the individual elements change their places. . . . their existence as distinct wholes can be perceived intuitively by the senses, while the abstract spontaneous order of social structures can only be reconstructed by the mind. [italics added]

Hayek's concept of an organism fits the analysis of *taxis* as an independent system far more closely than it does a society. Yet he emphasized an organism is a "spontaneous order" or in contemporary terms, an emergent outcome of evolutionary processes rather than a *taxis*. But the terms I emphasized in his description of an organism also characterize organizations once they begin to define their goals independently of the intentions of their creators.

Hayek took human individuals as given, arguing the individual's "existence as distinct wholes can be perceived intuitively by the senses" (Hayek, 1973, p. 53). Biology has deepened its understanding of individuals since he wrote, and no longer finds the individual to be intuitively clear. Exploring why deepens our understanding of *taxis.*

In their Introduction to a recent collection of essays on biological individuality Frédéric Bouchard and Philippe Huneman write: "Contemporary biology recognizes that the living world displays a hierarchy of individuals at various levels, from genes to chromosomes, cells, organisms, colonies, social groups, species, communities, and ecosystems" (Bouchard and Huneman, 2013, p. 2) In the same volume Matt Haber argues that biologically *there is no paradigmatic individual or organism*. There is only continuing variation:

> … if individuality is an evolved level of organization (or organizations), then we should not expect any particular form of individuality to be paradigmatic. There is no better reason to identify colony-individuals (i.e. superorganisms) in terms of organisms, than to define organisms in terms of similarity to colonies (Haber, 2013, p. 201).

Useful biological conceptions of what constitutes individuality are varied and irreducible enough that Charles Goodknight concludes "the concept of 'individuality' is a concept imposed by the observer" (Goodknight, 2013, p. 48).

The slime mold brings these points to life and ultimately gives us a newer and deeper perspective on why a *taxis* can become independent from its creators.

The extraordinary slime mold

During most of their existence cellular slime molds exist as independent single celled organisms crawling along a forest floor, engulfing and digesting bacteria and plant debris. A cell will occasionally divide during this time, as do individual amoebae in pond water. These unicellular organisms also have an ability to 'remember' certain events and learn from them despite their being only a single cell (Keim, 2012). They possess a kind of individuality.

If their environment becomes sufficiently challenging up to at least 100,000 previously independent amoebae gather together to form a larger multi-cellular organism that eats and crawls to an appropriate location for reproduction. The cells begin to differentiate depending on where they are located in the "slug." It even develops an immune system (Pradeu, 2013, p. 77). Eventually it raises a stalk, and releases spores, thereby reproducing. But only some cells travel up the stalk to become spores. The others die and decay. Spores landing in favorable places become individual amoebae and repeat the process.

If such an organism had always been an accumulation of cells it would be an example of nature's wonderful diversity of life forms. But it is not. It emerges from the collective relationships of thousands of hitherto independent organisms that collectively bring greater power to bear in their environment. A slime mold matters more than an amoeba. It makes more of a difference.

A slime mold 'slug' is an emergent phenomena. No "master" or "leader" cell exists to coordinate this complex life cycle. Every amoeba follows the same abstract rules but ap-

plied in different concrete environments (Keller, 1985, pp. 95-7, 101-7). As they do something far beyond the capacity of an individual amoeba comes into existence. And yet, if conditions improve the amoebas can return to their previous conditions (Pradeu, 2013, p. 86).

Is the cellular slime mold slug an individual? Do its constituent cells remain individuals? Whatever answer we might give is made more difficult by the fact that there are two kinds of slime molds, the cellular slime molds I have just described, and plasmodial slime molds that differ from cellular ones in that once the cells swarm together they fuse into a single-celled mass of protoplasm with thousands of separate nuclei. One might observe playfully that cellular slime molds are like organizations and plasmodial ones are like the Star Trek Borg. The nuclei continue to exist, but have been "assimilated."

The slime mold demonstrates in the living world *our concept of what constitutes an individual is contextual, and rooted in relationships*. What is clearly an individual in one context may not be in another. The individual's characteristics depend on context as well as content. The line between what used to be considered an organism and what is not has blurred. And not just with slime molds.

When we see an ant on a plant or kitchen counter it appears to be an individual insect, and in one sense it obviously is. It has senses, a metabolism, and eats. But its behavior is no more separate from a larger body than many a cell is to something larger in nature. Most ants are sterile, but there has been no shortage of them for millions of years. Understanding why further transform our understanding of individuality.

Eusociality, group selection and super organisms

Biologists define eusocial life as multigenerational groups organized by means of an altruistic division of labor. Eusociality characterizes the social insects, human beings, and a variety of other otherwise quite different species. Given the role of genetics in modern biology, the key theoretical question regarding eusociality was how altruism could evolve within the competitive context of biological evolution.

Long dominant reductive genetic explanations used biological variants of the logic of 'self interest' to explain 'altruistic' traits. The 'selves' were genes and their interest was reproduction. Many organisms favored their kin, even to the point of apparent 'altruism,' because so many of their genes are the same. This perspective viewed the division of labor between queen ants and offspring as a kind of self-interested cooperation. What appears to be altruistic behavior by workers is really selfish at the genetic level. Richard Dawkins' *The Selfish Gene* (2006) is the classic argument for this view.

While this model appeared to work for ants, the most completely social insect, it does not fit many other eusocial species, including termites, mole rats, some beetles and shrimp, and human beings. Among these organisms far more genetic variability exists than would be expected from a 'selfish gene' or primacy of kin argument.

As biologists learned more about eusociality, two concepts traditional selfish gene styles of argument had set aside reemerged: group selection and the super-organism. The former is central to Hayek's approach to understanding human societies.

In biological terms group selection takes place when an individual within a group is able to reproduce more successfully than could the 'same' individual if living alone. Emergent patterns of cooperation arising within a group determine that different outcome. Selection at this level is for or against the group, and it cannot be reduced to kin selection. Causality can be top down as well as bottom up.

In its modern form theory group selection occurs simultaneously with pressures for kin selection. Among eusocial species composed of genuinely cooperating individuals, such as human beings "selection among genetically diverse individual members promotes selfish behavior. On the other hand, selection between groups of humans typically promotes altruism among members of the colony" (Wilson, 2012, p. 162). The result is a complex dynamic, pulling eusocial organisms in two directions. Within such a society "cheaters" typically have an advantage within the group, benefiting at the expense of others, and so pushing selection away from altruism. However, cooperating groups have the advantage with respect to other groups, rewarding altruistic behavior. The environment within which individuals in groups live influences how this mix of 'self-interested' and 'altruistic' traits manifests.

In some ways pressures for group selection can be stronger among humans than among other life forms. Lewis and Lewin argue that evidence accumulating in behavioral economics indicates cheaters among human beings have less of an advantage than a purely logical analysis would suggest. We appear to possess "pro-social preferences" that strengthen the eusocial tendencies within our species (Lewis and Letwin, 2015). These characteristics might well have arisen during the enormous spans of time when the characteristics

of small and tribal groups made all the difference between survival and death.

Cultural evolution enables valuable traits acquired by many more sources than parents alone to be passed down. (Pagel, 2013). Adaptation by learning also takes place faster than biological adaptation (Caldwell, 2005, p. 354). From this perspective culturally transmitted ideas are analogous in important respects to genes, a point to which I will return in Part IV.

E. O. Wilson writes the dynamics of group selection ultimately creates "super organisms, the next generation of biological complexity above that of organisms" (Wilson, 2012, p. 133) As A. Hamilton and J. Fewell put the matter, "it is coherent and compelling not only to regard colonies of highly social insects as individuals, but also to recognize that they are biological and evolutionary individuals properly so-called" (Hamilton and Fewell, 2013, p. 191).

The transition from discrete individuals to a super organism is well recorded in the fossil record of bees. The earliest bees were individuals living largely alone. This kind of bee still survives, and early stages in the evolutionary process leading to eusociality can be triggered among them. When artificially forced to live together, solitary bees spontaneously take on a division of labor that begins the process of group selection, ultimately leading to the honeybee hives we know so well (Wilson, 2012, p. 150).

Like bees, ants' evolutionary ancestors were individualized, and lived independently. Today ants are more completely social than are bees, so much so that many biologists now hold that an ant *colony* is itself an individual. The transformation from many individuals to one is apparently the most complete development of eusociality. Unlike in the 'selfish' models, ants in a colony do not really cooperate for mutual advantage. Wilson (2012, p. 143) explains why:

> Workers are not players. When eusociality is firmly established, they are extensions of the queen's phenotype . . . alternative expressions of her personal genes and those of the male with whom she mated. In effect the workers are robots she has created in her image that allows her to generate more queens and males than would be possible were she solitary.

Wilson argues robot workers are one expression of the queen's flexible phenotype and not biological individuals. "The defending worker is part of the queen's phenotype, as teeth and fingers are part of your own phenotype." Workers develop into adults "under the influence of pheromones from fellow colony members and other environmental cues." As they do they "are directed to become one particular caste" (Wilson, 2012, p. 144).

An earlier version of this kind of development underlies all multicellular life. Charles Goodknight observes multi-celled organisms became possible once they had evolved mechanisms preventing evolutionary adaptations by their constituent cells, thereby subordinating them to the organism as a whole. He argues social insects have done the same. Worker bees can still occasionally lay eggs, but they are destroyed. Ants have taken this process to its most extreme, for workers are streile. Goodknight argues "the cells within a metazoan are not qualitatively different than, for example, individual bees or ants within a colony" (Goodnight, 2013, p. 46).

Wilson (2012, p. 186) points out that:

> …evidence from primitively eusocial species has shown . . . the queen and her workers have the same genes that prescribe caste and division of labor, although they vary extensively in other genes. This . . . lends credence to the view that the colony can be viewed as an individual organism or, more precisely, an individual superorganism. . . . descent is from queen to queen . . . . Group selection still occurs, but it is conceived to be selected as the traits of the queen and extra somatic projection of her personal genes.

Ants' individuality is most clearly expressed in the colony as a whole. Colonies even change their behavior as they age (Wilson, 2012, pp. 183-7). In the case of ants group selection favored qualities that ultimately led the colony to be best understood as a *single* organism. The Borg indeed.

Remarkable as it is, this evolutionary process has not stopped. Among some harvester ants several queens will establish a common nest and share tasks. Their offspring live together. Hamilton and Fewell (2013, p. 180) note that "In a sense these colonies are multiple eusocial groups cohabiting a single nest and acting as a single unit." I think Wilson would describe it as queens cooperating for their mutual benefit: a community of borgs.

We are observing organisms that from one perspective are objectively individual but are or become parts of a larger organism that is also objectively an individual, even as the individuals that form it continue to exist, but no longer as quite the individuals their ancestors were. Many individuals become a super organism which in time itself may evolve into a single individual.

To summarize these insights as they relate to this paper, human societies are characterized by both group and individual selection. A continuum exists of integration within such groups from loose or temporary alliances for a discrete purpose to an open ended organization existing for its own sake. Within spontaneous orders organizations are subject to group selection. Those most effectively organized tend to prevail over others less effectively organized in terms of obtaining systemic resources from the spontaneous order in which they exist. We appear predisposed to reshape our perceptions to harmonize with the group with which we identify. Human beings easily take on new traits when they closely identify with an organization.

From a biological perspective it appears the gap between individuality in slime molds and within tightly linked organizations is quantitative not qualitative. It is more than a metaphor to say large organizations can become organisms under frequently encountered conditions.

"Individual organism" is a theory laden concept rather than intuitively obvious, and individuals from one perspective can become elements of another individual from a different one. Individuals arise through relationships with other individuals. This observation raises a wide range of theoretical and practical questions going well beyond the confines of this already ambitious paper. For example, if a *taxis* can develop into a superorganism, can the same be true of a *cosmos*?

IV: IDEAS

A biological organism is dependent on its genome. But human evolution consists of cultural evolution as well as genetic evolution. This provides two avenues by which evolutionary processes can develop new organisms, and organizations are organisms living within the mental ecosystem of human culture.

Genes. memes, and the organizational mind

An organization is a pattern of relationships ordering its biological parts into an institution of power that cannot be reduced to its parts' intentions alone. It helps shape those intentions. The organization is the *pattern* of relationships, a pattern shaped and maintained by the ideas of its parts as influenced by its environment, including the pattern itself. The pattern is oriented towards the organization flourishing. But, like Buckminister Fuller, it is more a verb than a noun (Fuller, 1970).

A biological organism is also a pattern of relationships ordered by its genome in relation to its environment. It's actions cannot be explained by it parts, from the eukaryotic cell up to and including the complex relations between our genomic body and the bacteria needed to keep it healthy, and perhaps even alive. Like an organization, it is a hierarchy of relations with influence going in both directions. What Buckminister Fuller said of himself can be said of organisms in general: "I seem to be a verb" (Fuller, 1970).

An organism is the expression of its genome in relation with its environment, an organization is an expression of ideas in relation with its environment. In the biological world the genome adapts or dies, and with it the organism that is its expression. In the social world ideas adapt or die, and with them the organizations that are their expression.

Richard Dawkins coined the term "meme" for an idea that enters into and can be transmitted by culture. Comparing memes to genes, Dawkins wrote they adapt, flourish, and die through our success or failure in incorporating them into our lives, for we are their carriers (Dawkins, 1989). While I disagree with Dawkins' reductionist approach to evolution, his equating memes with genes is a most useful heuristic, and perhaps considerably more than that. As memes, ideas adapt, spread, die or mutate through their interaction in a social ecosystem analogous to genes in a natural one.

From this perspective ideas are like organisms needing mental rather than physical energy from people to flourish. Ideas compete for this support and the most successful often have symbiotic relations with others the better to obtain and maintain that support. When no one supports an idea, it "dies," or perhaps goes dormant awaiting a more supportive environment.

Ideas manifest in the material world through their ability to influence behavior, and powerful ideas often do this through their ability to inspire, create and preserve organizations. As elements within a culture, ideas influence the world through the mediation of the people guided by them, sometimes with the additional mediation of the organizations they influence.

This process of ideational growth, development, and extinction is clearly illustrated within the spontaneous order of science. A classical example is Newtonian theory, a scientific paradigm (Kuhn) strengthened the meme of the world as mechanism; a meme shaping not only science but also how people thought about themselves, and much of social life, including how America's Founders thought about the new constitution. (Landau, 90) In science mechanism is now

largely extinct, though the habits of thought and perception it facilitated continue elsewhere.

Epigenetics and epimemetics

The science of epigenetics is the study of heritable changes caused by mechanisms other than changes in the underlying genes. Biologists have discovered the relationship genes-plus-environment can have heritable consequences not determined by the gene on its own. How a gene expresses itself can also depend on the organism's environment. Epigenetics explores how the same genes trigger different *heritable* somatic characteristics in different environments. These changes may last for multiple generations, without any change in the organism's underlying DNA sequence.

Epigenetics discards the old dichotomy of nature versus nurture, recognizing each is impacted and even transformed by the other. For example, mice with an "agouti" gene are obese, unusually prone to many diseases, and have yellow coats. They pass these traits down to their offspring. But when provided an unusually enriched diet mothers gave birth to brown coated mice that were lean and healthy. Their environment profoundly altered the impact of their genes (Jirtle, 2009; Waterman, 2003).

Epigenetic interrelationships are now known to exist among people. The last famine in Europe occurred when the Nazis cut off food to a significant part of the Netherlands to weaken their ability to support the invading allies. More than 20,000 starved. When access to food was restored in 1945 the generation of children born to malnourished mothers grew up smaller than normal, as was expected. What was unexpected was that the *next* generation was also smaller. The grandchildren of people traumatized by famine were still physically affected by the event (Carey, 2012).

This observation about genes-plus-environment applies even more to memes. A meme, an idea, is powerfully affected by its environment: the people believing it and the organizations created under its influence or through which people seek to realize it. Organizations are particularly effective carriers of memes compatible with their survival, but in so doing they can transform how those memes manifest. Over time organizations subordinate the memes with which they are associated to the power they need to survive. This can be true even though the idea remains the "same."

Karl Marx inspired many people to devote their lives to human liberation, and his writings were required reading under Soviet totalitarianism. In one context he inspired altruistic sacrifice for the working class. In another he was read as justifying their most naked exploitation, an exploitation that as my earlier quotation from Miklós Gimes demonstrated, was invisible to the perpetrators (Polanyi, 1969, p. 21).

The Bible is regarded as authoritative in Catholic, Calvinist, and Orthodox Christianity. It is also famous for its emphasis on forgiveness and love. But when the Bible is interpreted in the context of a strong church these virtues are consistently subordinated and even redefined into obeying religious hierarchies never mentioned in scripture. For decades Europe was convulsed in religious war by people all of whom honored the same book as different organizations used that book to justify their attempts to destroy one another. The organizational framework within which ideas are incorporated changes their expression and what people mean by them, and it does so to serve the organization.

Perhaps if a science arises studying this phenomenon it could be called 'epimemetics'.

On social meanings

We have now identified the crucial link shaping both people and the organizations of which they are a part, a link that exists to some degree independently of either. In addition, memes and organizations influence one another to some degree *independently* of the purposes of the people motivated by them. Peter Berger and Thomas Luckmann provide the crucial insight as to how this happens.

Berger and Luckmann argue there are three "moments" in any full sociological explanation: human beings are social creations, society is a human creation, *and* society is an objective reality (Berger and Luckmann, 1967, p. 61). This third "moment" is objective in the sense that it is the means by which people understand reality. Insofar as social meanings are objective they are initially experienced as being as real as a rock. Yet these meanings are also reflexive in that while they shape and change minds, they can in turn be shaped and changed by them. They must continually be sustained, and in the process can change. Any particular social meaning can be questioned and even abandoned, but always within the context of taken for granted social meanings as a whole, a point with which Hayek agreed (1973, p. 78).

Objectivity in this sense also means knowledge and ideas exist independently of any individual holding them, and can carry additional meanings and insights not known to those transmitting them. Those insights and meanings can be discovered later, by others. William W. Bartley, another scholar deeply influenced by Hayekian insights, writes:

> What is distinctive about an item of objective knowledge – a book for instance . . . is its *potential* for being understood or identified in some way that has not yet been imagined. . . .Objective knowledge—including all the potentialities that are a part of it—… forms a major component of our ecological niche. . . . Objective knowledge interacts with the individuals living in that ecological niche, and may transform the niche itself. And it adapts in a way analogous to, though not identical with, biological evolution (Bartley, 1990, pp. 60-1).

Berger and Luckmann believed their insights were compatible with traditional methodological individualism, but as Paul Lewis has shown they were mistaken. In keeping with Bartley's observation, they did not fully understand the implications of their own insights (Lewis, 2010).

We encounter social meanings as objectively real, only in time learning to question some of them. But we always do so within a taken for granted context. Our meanings adapt within an ecology of meaning as organisms adapt within an ecology of life. The meanings we explicitly encounter, as well as the institutions through which we examine them, shape the nature of our interactions. They are not passive.

When an organization institutionalizes human purposes to some degree it redefines those purposes and thereby the context within which its members exist. Members in turn adapt to it.

To the degree an organization re-shapes members' perceptions to harmonize them with its own, it takes on central characteristics of a distinct organism. The rule members follow to become its agents is procedural and independent of any particular purpose: identify with it. In time the organization redefines its purposes in terms of its own survival. The organization then has interests separate from its parts and acts in ways not reducible to their independent decisions. *It has become an organism, one subordinating human purposes to power.*

From tool to organism

I believe I can now describe the stages by which an organization can shift from being a tool subject to human purposes to an increasingly independent entity. This transformations is not inevitable but it is one natural outgrowth of the dynamics set in motion by people joining an organization for reasons distinct from its original reasons for being created. A plausible description of how this process unfolds is:

1. A founder attracts people to work with him or her. This person might be a creative entrepreneur, a charismatic spiritual teacher or political leader, or famous scientist. In its initial stages such a venture is risky and so does not attract the more risk averse.
2. If the organization flourishes and grows, it attracts new members who are motivated as much or more by its attractiveness as an ongoing enterprise with a future as by its founder's promise as an initiator/entrepreneur with a dream.
3. If it continues to flourish and grow the organization attracts members motivated by its utility for providing a job, career or status. The initial reasons for why the organization was created are often secondary to their own reasons for getting involved. Such people will usually be more risk averse than the initial members. Alternatively, people become dependent on it for their livelihood or other obligations over and above their attitudes towards its 'mission.'
4. Over time members joining for utilitarian reasons often link their understanding of their interests more closely with the interests of the organization rather than with its original goals. For them these goals remain valued only insofar as they serve the organization's survival.
5. The ideas that led to the organization's creation are therefore re-interpreted to subordinate them to the organization's survival. New members learn these ideas as they have been re-interpreted.
6. Simultaneously, members redefine their personal goals to bring them into greater harmony with the organization's culture. As it comes to provide an element of meaning within their lives it ceases to be of simply utilitarian value to them. They identify their well-being with its well-being while their value to it is entirely utilitarian. The relation of tool to tool maker has become reversed.

This gradual change in member motivations is neither "good" nor "bad." Steve Jobs and Adolf Hitler could be placed in the first category, along with those who initially linked up with them. The second category could refer to people wanting to get involved in an exciting new technology with lots of opportunities for creative work, or with a new political party with attractive opportunities for acquiring power. The third would attract careerists preferring the tried and true to the new, or to careerists seeking to 'normalize" and routinize a charismatic movement. The fourth begins when the social networks that arise within an organization often fulfill many

of the psychological needs people meet within communities, with the important difference that in organizations these relationships are subordinated to the organization's goals and its members possess only instrumental value for attaining those goals. The fifth involves redefining the organizations goals to survival. The sixth changes human members' senses of who they are better integrating them into serving the organization.

When upon joining and identifying with some kinds of organizations individuals become different people in terms of their character and actions we see a variant of phenomena such as slime molds. Keeping with our biological model, when an individual links their success with the organization but remains of only instrumental value to it, he or she is in important respects like a cell in a slime mold "slug."

In biological terms collectivism is the mentality of a human slime mold. Individuals serve the collective while re-defining their self-interest, *but* the collective has no reason to serve the individuals beyond its 'self-interest'. The organization's interests as an organism become their interests but there is no reciprocity. Totalitarian collectivism is an extreme point along this continuum. Dystopic novels like *Brave New World* explored these implications (Huxley, 2006).

V. ONE PUZZLE ANSWERED, A NEW ONE ENCOUNTERED

We can now answer the puzzle that began this paper. Those who covered up the crimes of others, crimes that flew in the face of the values their organizations supposedly honored, were acting as if they were members of a greater organism. This organism had led its members to equate the organization's good with their own good. Their personal moral values were reshaped and subordinated to the good of the organization. Usually. And here is where our second puzzle arises. There are exceptions.

Becoming part of a large organization is a transformative experience for many people. This happens in ways many did not expect and would once have rejected, as in covering up crimes they once would have denounced in terms of the organization's original values. Their individuality remains real but as with the rest of us, it is constantly shaped by the relations within which we exist (diZerega, 2014).

But a human being is not an amoeba. Human beings preserve the capacity to judge the organization of which they are members because the value world within which they live is deeper than that shaping an organization. Not everyone in the Milgram experiment co-operated (Milgram, 1963). Throughout history some people have stepped back, judged, and found the organization wanting. Unless they were acting from a sense of personal grievance that alienated them from the organization, one characteristic they appear to have in common is a deep belief in the most uniquely human ethical qualities (Nussbaum, 2006; Fogelman, 1995). *It is these people who are the unusual cases, the ones most deserving our careful study and respect.*

A *really* interesting example

Military membership is perhaps the strongest example of how identification with an organization leads people to act in ways they would not previously have done. In recent American history the My Lai massacre during the Vietnam War stands as a particularly horrifying example.

Hugh Clowers Thompson was the American helicopter pilot who landed his craft between fleeing villagers and American troops who were slaughtering them indiscriminately. Thompson explained "These people were looking at me for help and there was no way I could turn my back on them" (Thompson, n.d.). His empathetic capacity made all the difference. It was able to override the efforts to shape his character into simple loyalty to the military.

Following his forcing an end to the massacre, Thompson's superiors in the military acted in the same manner as those in the Catholic Church, Boy Scouts, or police who covered up others' crimes. His commanders worked to cover-up the truth. On future missions they even "neglected" to provide the gunships that were standard protection for aeroscout helicopters, such as Thompson flew. Apparently facilitating Thompson's death (and those with him on the helicopter) was preferable to providing the protection customary for pilots on such missions. They had become different people by virtue of their identification with the organization.

This treatment continued for months until injuries in a crash led to Thompson's evacuation to Japan. For nearly two decades afterwards he continued to be widely reviled by his peers for his actions at My Lai and subsequent truth telling.

Despite it all, because of his love of flying Thompson chose to make a career in Army Aviation, retiring in 1983. Much later, in 1998, he received the Soldiers Medal, the highest award the Army can bestow for bravery other than in combat. Significantly, he refused to accept the medal unless it was also given to his crewmates, Larry Colburn, and posthumously, to Glenn Andreotta. The character traits that saved Vietnamese lives later ensured his crewmates were recognized for their bravery as well.

In his final decade Thompson and his wife worked with young men and women in the military to promote and sustain a "moral conversation" about matters of state, war, honor, duty, and conscience. Moral grounding can preserve people from subordinating themselves to an organization.

Thompson is not unique, only rare. The story of New York police officer Frank Serpico follows a remarkably similar trajectory (Serpico, 2014). But as recent events involving the New York Police Department indicate, there is a perpetual and strong tendency for the organization to become an end in itself. Serpico would apparently again have as rough a time in the NYPD as he had in the late 1960s and early 1970s.

From this perspective what makes human individuals important is not individuality but our capacity for *moral behavior disconnected from calculations of utility.* Care can trump utility. As the ecological scientist Aldo Leopold wrote, while we can mourn the demise of the passenger pigeon, which none of us have ever seen, no passenger pigeon would have mourned our own passing. He concluded that "For one species to mourn the death of another is a new thing under the sun" (Leopold, 1970, p. 117).

Leopold's words illustrate the fundamental difference between the world of human beings and the world of organizations within which human beings are essential parts. Far from simply being tools for achieving human purposes, organizations often reverse the relationship. The logic of *taxis* undermines one of our most uniquely human characteristics.

Civil society respects all humans as members of a community. Organizations have no respect for human beings as such. From a human perspective it is important that organizations be subordinated to civil society, the realm of truly human action among equals. But today more and more it is the other way around.[2]

CONCLUSION

We have traveled a far piece while exploring our opening puzzle, and by solving it have deepened our understanding of *taxis*. The major points I have developed are that

1. The most important *taxis* are complex emergent phenomena, as are *cosmos*. They differ from a *cosmos* because they can be described in teleological terms. *Taxis* are not simply constructions, they are self-organizing systems.
2. There is downward causation from the organizational systems people create to those who created them, even as there is upwards causation from individuals to organizations. Human behavior is therefore changed by close identification with organizations of which they are members.
3. Over time there systems can shift from serving the purposes of those who construct them to serving their own survival as a kind of organism. They remain teleological, but the *telos* shifts from one imposed on them to one arising out of their own processes. *They develop a "self" distinct from their constituent parts as well as from their creators.*
4. The logic of *taxis* is collectivist and so, in human terms, amoral.
5. Biology offers important insights on Hayekian approaches to the social sciences., especially its studies of ecologies, evolution, and of what constitutes an individual organism.
6. The Great Society requires the absolute subordination not only of *taxis* to *cosmos* it also requires subordinating organizations to the thick value context of civil society rather than the thin value context of a spontaneous order.

NOTES

1 In terms of Austrian economics, which most makes use of Hayekian insights, Sagoff's example undermines the argument that successful entrepreneurship always assists in coordinating human plans. (Kirzner, 1976)

2 I am grateful to comments by my referees, one of whom in particular facilitated my making this argument far more clear and easy to follow.

BIBLIOGRAPHY

Bartley, William Warren, III. (1990). *Unfathomed Knowledge, Unmeasured Wealth: On Universities and the Wealth of Nations.* LaSalle: Open Court.

Berger, Peter (1980). *The Heretical Imperative: Contemporary Possibilities of Religious Affirmation.* New York: Anchor.

Berger, Peter and Thomas Luckmann (1967). *The Social Construction of Reality: A Treatise on the Sociology of Knowledge*. New York: Anchor.

Bond, Michael (2014). *The Power of Others.* London: Oneworld.

Bouchard, Fredéric and Philippe Huneman (2013). Introduction. *From Groups to Individuals: Evolution and Emerging Individuality*. Cambridge, MA: MIT Press.
Bush, George (2001). Address to a Joint Session of Congress and the American People. Washington, DC. September 20, 2001 http://georgewbush-whitehouse.archives.gov/news/releases/2001/09/20010920-8.html
Carey, Nessa (2012). *The Epigenetics Revolution: How Modern Biology Is Rewriting Our Understanding of Genetics, Disease, and Inheritance*. New York: Columbia University Press.
Caldwell, Bruce (2005). *Hayek's Challenge: An Intellectual Biography of F. A. Hayek*. Chicago: University of Chicago Press.
Clinton, Hillary (2001). Every Nation Must Be With Us Or Against Us. Sept. 13, 2001. http://www.youtube.com/watch?v=DbYGYiGjpUs
Coolhaas, W. (2015). Ph. Jan Pieterszoon Coen, Dutch merchant and statesman. *Encyclopedia Britannica.* http://www.britannica.com/EBchecked/topic/124214/Jan-Pieterszoon-Coen/1391/Founding-of-Batavia
Cooper, Joel M. (2007). *Cognitive Dissonance: 50 Years of a Classic Theory.* Sage.
Cullen, Kevin (1997). In Ireland, Few Mourn Pedophile Priest**.** *Boston Globe*, August 24, 1997. http://www.bishop-accountability.org/news3/1997_08_24_Cullen_InIreland_Brendan_Smyth_7.htm
Damian, Pierre J. Payer (1982). *The Book of Gomorrah*. Waterloo, ON: Wilfrid Laurier University Press.
Dawkins, Richard (1989). *The Selfish Gene*, 2nd ed. Oxford: Oxford University Press.
diZerega, Gus (2014). From Methodological Individualism to Emergence, Ecology, and the Fluid Self. In: *Austrian Economic Perspectives on Individualism*. Guinevere Nell (ed.). Place??: Palgrave MacMillan.
diZerega, Gus (2013). The Corporation, American Nihilism, and Mafia Capitalism, online appendix to *Faultlines: The Sixties, the Culture War and the Return of the Divine Feminine*. Wheaton: Quest. http://dizerega.com/faultlines/appendices/the-corporation-american-nihilism-and-mafia-capitalism/
diZerega, Gus (2010). Conflicts and Contradiction Within Invisible Hand Phenomena. *Studies in Emergent Order*, III, 1-27. https://cosmosandtaxis.files.wordpress.com/2014/05/sieo_3_2010_dizerega.pdf
diZerega, Gus (1989). Democracy as a Spontaneous Order. *Critical Review*, Spring, 206-240.
Durbin, Dee-Ann (2014). Auto industry acts globally—except on recalls. *San Jose Mercury News*, 12/24/14. http://www.mercurynews.com/business/ci_27200507/auto-industry-acts-globally-except-recalls
Fogelman, Eva (1995). *Conscience and Courage: Rescuers of Jews during the Holocaust.* New York: Anchor.
Fuller, Buckminister (1970). *I Seem to be a Verb*. New York: Bantam.
Goodknight, Charles J. (2013). Defining the Individual. *From Groups to Individuals: Evolution and Emerging Individuality*. Cambridge, MA: MIT Press.
Haber, Matt (2013). Colonies as Individuals: Revisiting the Superorganism Revival. *From Groups to Individuals: Evolution and Emerging Individuality*. Cambridge, MA: MIT Press.
Hamilton, Andrew and Jennifer Fewell (2013). Groups, Individuals and the Emergence of Sociality: The Case of Division of Labor. *From Groups to Individuals: Evolution and Emerging Individuality*. Cambridge, MA: MIT Press.
Hans, Barbara (2013). Sex Abuse Scandal: German Catholic Church Cancels Inquiry. *Spiegel Online*, Jan 9, 2013. http://www.spiegel.de/international/germany/german-catholic-church-cancels-sex-abuse-scandal-inquiry-a-876612.html
Hardwick, David (2008). Medical Science is a Self Organizing Social Environment. *Studies in Emergent Order* 1:119-34 https://cosmosandtaxis.files.wordpress.com/2014/05/sieo_1_2008_hardwick.pdf
Hayek, F. A. (1979). *Law, Legislation and Liberty: The Political Order of a Free People.* Chicago: University of Chicago.
Hayek, F. A. (1976). *Law, Legislation and Liberty: The Mirage of Social Justice*. Chicago: University of Chicago.
Hayek, F. A. (1973). *Law, Legislation and Liberty: Rules and Order*. Chicago: University of Chicago.
Hayek, F. A. (1967). The Theory of Complex Phenomena. *Studies in Philosophy, Politics and Economics*. 22-42. Chicago: University of Chicago Press.
Hayek, F. A. (1960). *The Constitution of Liberty*. Chicago: University of Chicago
Hayek, F. A. (1944). *The Road to Serfdom.* Chicago: University of Chicago.
Heinrich, Bernd (2004). *Bumblebee Economics.* Cambridge, MA: Harvard University Press.
Herbert, Bob (1997). Seeking New Smokers. *New York Times*, May 2, 1997, 19. http://www.nytimes.com/1997/05/02/opinion/seeking-new-smokers.html
Huxley, Aldous (2006). *Brave New World.* Harper reprints.
Jirtle, Randy (2009). Author Commentaries. *ScienceWatch: Tracking Trends & Performance in Basic Research*. August, 2009. http://archive.sciencewatch.com/ana/st/epigen/09augEpiJirt/
Joyner, Rick with Dutch Sheets (2007). The True Soldiers of the Cross are Mobilizing. The Church is About to be Clothed with a Beauty that is Beyond this World! *The Elijah List*, June 19, 2007. http://www.elijahlist.com/words/display_word/5396
Keim Brandon (2012). Video: Slime Mold's Powers of recall Hint at Origin of Memory. *Wired Science*, October 8, 2012. http://www.wired.com/wiredscience/2012/10/slime-mold-memory/
Keller, Evelyn Fox (1985). The Force of the Pacemaker Concept in Theories of Aggregation in Cellular Slime Mold. *Reflections on Gender and Science*. New Haven: Yale University Press.
Kirzner, Israel (1976). *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
Kuhn, Thomas (1970). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
Landau, Martin (1972). On the Use of Metaphor in Political Analysis. *Political Theory and Political Science*. New York: Macmillan.
Leopold, Aldo (1970). *Sand County Almanac*. New York: Ballantine Books.
Leggett, Christopher (1999). The Ford Pinto Case: The Valuation of Life as it Applies to the Negligence-Efficiency Argument. http://users.wfu.edu/palmitar/Law&Valuation/Papers/1999/Leggett-pinto.html
Lewis, Paul and Peter Lewin (2015). Orders, Orders, Everywhere… On Hayek's *The Market and Other Orders*. *Cosmos & Taxis* 2:2: https://cosmosandtaxis.files.wordpress.com/2015/03/ct_vol2_issue2_lewislewin.pdf
Lewis, Paul (2010). Peter Berger and his critics: The Significance of Emergence. *Society*, 47: 3.

Milgram, Stanley (1963). Behavioral Study of Obedience. *Journal of Abnormal and Social Psychology.* 67:4. 371-8. http://academic.evergreen.edu/curricular/social_dilemmas/fall/Readings/Week_06/milgram.pdf

Muzafer, Serif, O., Harvey, B. White, and W. Hood (1988). *The Robbers Cave Experiment*. Wesleyan.

Nagel, Thomas (2012). *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature is Almost Certainly False*. Oxford: Oxford University Press.

Naziri, Jessica and Nell Gram (2012). Boy Scout files on suspected abuse published by The Times. *Los Angeles Times,* Dec. 25, 2012. http://www.latimes.com/news/local/la-me-scouts-data-20121226,0,6477648.story

Nussbaum, Martha (2006). Man Overboard. Review of *Manliness*. *The New Republic*, June 22, 2006. http://www.powells.com/review/2006_06_22.html

Pagel, Mark (2013). *Wired for Culture: The Origins of the Human Social Mind*. New York: W. W. Norton.

Polanyi, Michael (1969). *Knowing and Being: Essays by Michael Polanyi*. Marjorie Grene, ed., Chicago: University of Chicago Press.

Polanyi, Michael (1962). The Republic of Science: Its Political and Economic Theory. *Minerva* 1:54-74, https://www.missouriwestern.edu/orgs/polanyi/mp-repsc.htm

Pradeu, Thomas (2013). Immunity and the Emergence of Individuality. *From Groups to Individuals: Evolution and Emerging Individuality*. Cambridge, MA: MIT Press.

Purdy, Matthew (1995). Warehouse of Addiction; Bars Don't Stop Flow of Drugs Into the Prisons. *New York Times*, July 2, 1995. http://www.nytimes.com/1995/07/02/nyregion/warehouse-of-addiction-bars-don-t-stop-flow-of-drugs-into-the-prisons.html?pagewanted=all&src=pm

Ross, Winston (2012). Boy Scout 'Perversion Files' Detail Abuse Charges. *The Daily Beast*, Oct. 18, 2012. http://www.thedailybeast.com/articles/2012/10/18/boy-scout-perversion-files-detail-abuse-charges.html

Rudgley, Richard (1988). *Pagan Resurrection: A Force for Evil or the Future of Western Spirituality?* London: Arrow Books.

Sagoff, Mark (1988). *The Economy of the Earth.* Cambridge: Cambridge University Press.

Serpico, Frank (2014). The Police Are Still Out of Control: I should know. *Politico*. October 23, 2014. http://www.politico.com/magazine/story/2014/10/the-police-are-still-out-of-control-112160.html#.VSK48mb_5FV

Sharlet, Jeff (2009). Sex and power inside "the C Street House." *Salon*, July 21, 2009, http://www.salon.com/news/feature/2009/07/21/c_street

Sharlet, Jeff (2008). *The Family: The Secret Fundamentalism at the Heart of American Power.* New York: Harper.

Sharlet, Jeff (2003). Jesus plus nothing: Undercover among America's secret theocrats. *Harpers*, March, 2003. http://www.harpers.org/archive/2003/03/0079525

Solnit, Rebecca (2010). *A Paradise Built in Hell: The Extraordinary Communities that Arises in Disaster*. New York: Penguin.

Thompson, Hugh (n.d). The Hugh Thompson Foundation, http://hughthompson.org/

Thring, Oliver (2010). Consider nutmeg. *The Guardian*. September 14, 2010. http://www.theguardian.com/lifeandstyle/wordofmouth/2010/sep/14/consider-nutmeg

Thucydides (1951). *The Peloponnesian War*. New York: Random House. https://www.mtholyoke.edu/acad/intrel/melian.htm

Toulmin, Stephen (1990). *Cosmopolis: Modernity's Hidden Agenda.* Chicago: University of Chicago Press.

Trautman, Neal (2000). Police Code of Silence Facts Revealed, Annual Conference (2000) International Association of Chiefs of Police. http://www.aele.org/loscode2000.html

Vermeij, Geerat (2004). *Nature: An Economic History*. Princeton: Princeton University Press.

Waterland, Robert A. and Randy L. Jirtle (2009). Transposable elements: targets for early nutritional effects on epigenetic gene regulation. *Molecular and Cell Biology*, Aug 23, 2003, (15) 5293-3000; Randy Jirtle Interview, *ScienceWatch.com,* March 2009. http://archive.sciencewatch.com/ana/st/epigen/09augEpiJirt/

Wilson, E. O. (2012). *The Social Conquest of the Earth.* New York: W. W. Norton.

Worster, Donald (1994). *Nature's Economy: A history of ecological ideas*. Cambridge: Cambridge University Press.