

Original Article

**KARL MARX AND CHARLES DARWIN: TOWARDS AN
EVOLUTIONARY HISTORY OF LABOR**

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Abstract

Although evolutionary theory is a fundamentally historical explanation of how humanity has developed, historians remain almost perfectly indifferent to evolution in favor of the Standard Social Science Model. This paper summarizes the dominant assumptions of history (through one of its key sub-disciplines, labor history) and proposes a reconsideration of that history within the framework of evolutionary psychology. Non-historians have begun to develop a Darwinian history, although mostly in terms of sex and the family structure, rather than contextualizing modern forms of social organizations such as unions. This is a modest step towards what EO Wilson termed the *consilience* of human knowledge, a process that he argued would prove both exciting and challenging for the humanities and the social sciences.

Keywords: history, labor, evolution, evolutionary psychology

Karl Marx and Charles Darwin: Towards an Evolutionary History of Labor

“Natural science will in time incorporate into itself the science of man, just as the science of man will incorporate into itself natural science: there will be one science.” (Marx, 1969, p. 143).

“Much light will be thrown on the origin of man and his history.” (Darwin, 1909, p. 527).

In the late nineteenth century, the Social Democratic left generally looked upon Charles Darwin as a kindred spirit. For instance, at Karl Marx’s funeral, Frederick Engels argued that Marx and Darwin were complementary thinkers: “Just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history” (Engels, 1976, p. 681). Marx so appreciated Darwin that he sent him a copy of his opus, although by all accounts it lay unread in Darwin’s study (Gould, 1999). In the fifty years following the publication of Charles Darwin’s epochal work, *The Origin of Species*, the left generally viewed evolution with favor, seeing in it another effort to demystify the study of the world and remove the guiding hand of God from the affairs of nature and man. Marx certainly looked forward to the day when

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science would make it possible to realize the dream of the ancient Greeks that knowledge would be unified (Wilson, 1993). Indeed, Marx's dream of the day when the study of science and history can come together may be dawning. Much has changed since Marx strode the earth, and while the left derides the Christian right for attacking evolution, seeking to replace it with Intelligent Design, the vast majority of historians or social scientists are deeply skeptical of efforts to apply Darwin or evolution to the recent affairs of humanity. For many historians, incorporating evolution and social science would be to allow the Trojan Horse of neo-conservatism, eugenics, and scientific racism into our city.

As historian Philip T. Hoffman (2006) observed, the disciples of Clio were once known as "methodological omnivores," open to the useful theoretical or empirical findings of other disciplines. At least in terms of science, that is no longer the case. Since the 1960s and 1970s, most historians have eschewed the cognitive revolution from psychology or game theory in favor of one variant or another of what Tooby and Cosmides (1993) have termed the Standard Social Science Model (SSSM). The default position of half the discipline, that of social history, is to emphasize the agency of individuals or groups in their response to their situation or social position within their historical context. For instance, in reviewing a recent work of a historian, the reviewer wrote approvingly that the author relegated his treatment of evolutionary psychology to the footnotes, "perhaps because like any broad theory, evolutionary psychology can be used to explain too much about general patterns but little about the particulars of human interaction" (Walcott, 2007, p. 461). Context, contingency, agency and new details or documentation are central to social history. Given the importance of what is human nature, something that by and large historians reject in favor of the blank slate, historians have tended to avoid the empirical findings of other disciplines, such as psychology or evolutionary biology.

Evolution is fundamentally a theory of the historical change of the biological world. It is an extremely powerful theory with enormous predictive power to guide research. The noted geneticist Theodosius Dobzhansky (1973) argued that nothing in biology makes sense without considering evolution. Consequently, it should not surprise us that there is an emerging literature that seeks to incorporate an evolutionary approach into human history. Given the divorce between science and history, tellingly, much of it is written by non-historians. The classic *Guns, Germs and Steel* was the work of Jared Diamond (1999), an evolutionary biologist working in a geography department. Laura Betzig (*Despotism and Differential Reproduction: A Darwinian View of History*, 1986) was trained as an anthropologist and psychologist. Sarah Blaffer Hrdy (*Mother Nature: A History of Mothers, Infants and Natural Selection*, 2000) is an anthropologist and primatologist. Peter Turchin (*War and Peace and War: The Rise and Fall of Empires*, 2007) is an evolutionary biologist. Gregory Clark (2007; *A Farewell to Alms*) is an economist influenced by Malthus. The social historian Jeffrey S. Adler (2007) addresses evolutionary psychology in his history of murder in Chicago (*First in Violence, Deepest in Dirt*), but as noted above, it is chiefly relegated to his footnotes. Nicholas Wade (2006; *Before the Dawn: Recovering the Lost History of Our Ancestors*) is a science writer for the *New York Times*. Most of these works emerged in the last ten years.

Historians' resistance to evolutionary approaches runs deep. The eminent historian Carl Degler (1992) devoted four chapters of his *In Search of Human Nature: The Decline and Revival of Darwinism in American Social Thought* to how sociobiology had been applied to the social sciences, and the generally hostile reception it received throughout the 1970s and 1980s. The early exchanges revealed the substantial gulf

between evolutionary biology and ethology and fields such as anthropology. When Degler (1992) assessed what would be needed for sociobiology to succeed, he quoted two psychologists who observed that “an aspiration of this magnitude will require a revision of the modus operandi of the social sciences...It will be necessary to develop “historians who can discern patterns in discrete events” (pp. 317). Writing before the publication of E.O. Wilson’s *Sociobiology* (1978), Jaynes and Bressler (1971) observed that the ethologists, who advocated an evolutionary approach to human behavior, “will be obliged to show more respect for the subtlety and complexity of evolutionary processes” (p. 344). A recent edited collection of the application of evolutionary approaches in the social sciences surveyed psychology, anthropology, and sociology, while ignoring the discipline of history entirely (Barkow, 2005).

The first historian to thoroughly incorporate evolutionary psychology into history is Daniel Lord Smail (2007) in his work, *On Deep History and the Brain*. Smail observes that historians do not generally cite Genesis, but we share with that origins myth the belief that all that happened before 6,000 years ago is not our provenance. Historians deal with the world of the written word, leaving all of pre-history to other branches of history, although not recognized as such, like physical anthropology, evolutionary biology, archeology, and geology. Smail argues historians should rethink their view of what we term “pre-history,” that is everything before the written word, and that evolutionary psychology affords us the means to do so. Smail argues that to ignore how the brain developed over what historians term pre-history is to impoverish our understanding of the social history of stimulants such as coffee, tobacco, and narcotics. He finds that historians have much to learn, although like Jaynes and Bressler (1971), Smail suggests that evolutionary psychology will need to reconsider to what degree evolutionary change has occurred since the Pleistocene.

If Smail is correct, then historians may well have something to bring to the table of evolutionary thought. Given the dearth of the literature applying evolutionary theory or evolutionary psychology to modern history, it is not surprising that there is no Darwinian social history of the industrial era. So let us take seriously D.S. Wilson’s idea reflected in the title of his recent book, *Evolution for Everyone* (2007) as we endeavor to show how an evolutionary approach might help frame such a history by looking at the sub-field we know best, the history of workers and unions.

A Brief History of Labor History

Over the last few decades, labor history has been influential in terms of its methods and sources. The field owes much to its origins on the political left, and Marx remains a figure of some stature. E.P. Thompson’s *The Making of the English Working Class* (1964) set the tone for the social history that was to follow. Thompson emphasized the agency of the English working class, arguing that the class was not made, it made itself. He emphasized the role of ordinary people in setting their own historical agenda to break with the rigid determinism of the English Communist Party of which he had long been a member. This fits within the tradition, observed by Anderson (1979) as “Western Marxism,” wherein left-wing scholars blame Stalin, not Marx, for the various political and/or intellectual dead ends of the modern left. Other historians applied the theme of agency, rejecting dominant views of slavery, immigrants, and women, as overly deterministic, and not allowing ordinary people to be taken seriously as actors in their own lives. To paraphrase E.O Wilson (1993), historians’ understanding of psychology is not based on the scientific advances of the field, but on folk psychology Likewise, historians’ knowledge of how Darwinism has been applied to the study of humanity is

often misunderstood as the malicious attempts of social Darwinians (such as Herbert Spencer) to justify the industrial class system of the late 19th century, or of scientific racists to justify imperialism, segregation, or eugenics. Much of what historians know about the field comes courtesy of Stephan Jay Gould's (1981) inveighing against sociobiology.

Consequently, historians have made little use of the findings from cognitive psychology that show that an overwhelming portion of the human brain's activities, even emotions, occur with no input from the conscious mind. The notion that *the mind is as the brain does*, is a radical challenge to the folk psychology of social science. Labor historians' variation on the blank slate is that class position (and/or race, ethnicity, occupation, ideology) shapes human consciousness, culture and relationships, and is in turn shaped by the actions of individuals and groups in a dialectical process. Consequently, even non-Marxist historians see strikes and the rise of unions as validating class as the (or a) central organizing principle of society. According to Gintis (2006), there is enough support for the Marxist (or soft Marxist) approach to maintain it, just as there is for neo-classical economics, or for a Lockean view, but neither are sufficient explanatory vehicles for the complex patterns of human cooperation and competition.

The ideology of labor historians helps explain the uneven nature of its scholarship. For instance, a Worldcat search reveals 170 books or theses on the colorful history of the radical Industrial Workers of the World (IWW), which had at most 100,000 members but effectively disappeared amidst the red scare following WWI. The International Brotherhood of Electrical Workers (IBEW), formed more than a decade before the IWW, and has survived into the present with 750,000 members. It has a much more meager number of monographs or theses chronicling its history, 12—one of which was written in 1923. Unlike the IWW, which sought to organize all the “workers of the world,” the IBEW is a craft union where membership was initially restricted to a single occupation and union cards remain essentially passed down from fathers to sons. Consequently, the union is best known among scholars for its history of excluding women and blacks, what Marxists would term false consciousness. Yet the IBEW and other craft unions such as the Carpenters and Plumbers are among the oldest and most durable unions. The IBEW organizes jobs, and ultimately high wages and pensions, for its members by making sure that unionized employers win bids to build ships, buildings, etc. Unsuccessful at attracting scholarship, the IBEW has been quite successful as a cooperative coalition. That progressive unions get overstudied and conservative ones get understudied, suggests that labor history needs something beyond politics to guide its research.

In recent decades, historians have criticized the labor movement for its contradictions such as the tendency of workers to uphold as much as challenge authority figures or capitalism itself, and of workers to marginalize women or minorities (Roediger, 1999; Russo & Linkon, 2005). What are the psycho-social dimensions of labor or its real or imagined contradictions? Historians are exploring that one case study at a time. We have accumulated mountains of evidence, with more being added to it every day, but we lack a central organizing theory of human nature that has any substantial predictive value. We argue that an evolutionary approach can explain many of the dynamics of labor history, perhaps even resolving some thorny contradictions, such as why trade unionists develop egalitarian ideologies, but exclude or repress racial minorities or women. Furthermore, a Darwinian labor history would have the added advantage of predictive power. Surely if we understand our evolved emotional and

cognitive architecture, and the wide range of likely strategies we employ in the wide range of environmental contexts that we've found ourselves in the industrial age, our ability to understand and interpret the past would be greatly enhanced.

Relevant Evolutionary Principles and the History of Unions

Historians often understand evolution as Social Darwinism and that it has been used to justify class inequalities, scientific racism, and the eugenics movement (Degler, 1992). So it may seem strange to use evolution to understand unions. Labor historians familiar with the intellectual history of the left may recall that the anarchist Peter Kropotkin (1902) sought to understand animals' and humans' efforts to survive via cooperation, objecting to the uses of Darwin's theory to justify the class system of the late 19th century. Many are perhaps unaware that Darwin himself observed that groups with high levels of social solidarity had a competitive advantage over divided groups. In *The Descent of Man*, Darwin (1871) wrote that, "There can be no doubt that a tribe including many members who, from possessing in a high degree the spirit of patriotism, fidelity, obedience, courage, and sympathy, were always ready to aid one another, and to sacrifice themselves for the common good would be victorious over other tribes; and this would be natural selection" (p. 166). As labor historians know all too well, efforts to build solidarity amongst the working class sometimes succeeded, but were generally outdone by the greater levels of class solidarity by owners of business. Here is what evolutionists would term group selection with a vengeance (D.S. Wilson & E.O. Wilson, 2007).

A thorough evolutionary labor history would need to take seriously the varieties of environmental contexts that workers have operated within and the variety of strategies that they have employed. That is a project that requires more time and space than available here. But let us emphasize that as with any historical subject, the context matters; the unions of 1820 operated in qualitatively different ways than unions that operate in a context where the internet, globalization, and voting rights for all adults are the norm. Nonetheless, even in a brief overview, some common features emerge that are rooted in the evolved architecture of the mind that can help to explain labor's successes and contradictions as well or better than as the SSSM.

Humans are social creatures, and like all social animals, they build status hierarchies, contend within them for higher status, and/or build alternative ones, and high status individuals enjoy health benefits from their position; they and their offspring live longer and enjoy better health (e.g. Wilkinson, 2006). In present day Chicago, males living in the wealthiest census tracts live twenty years longer than those in the poorest (D.S. Wilson, 2007). Wilkinson (2006) has found that even when diet, lifestyle and exercise are taken into account, junior clerks in the British civil service suffer worse health and shorter lives than their senior counterparts. The more extreme the inequality or the more authoritarian the expression of dominance, the worse subordinated humans feel. Economic inequality—far more so than average income—is highly correlated to low levels of social capital, distrust in strangers and government, and male violence (Wilkinson, 2006). Such data help explain the political cultures of countries (the US versus Denmark for instance) as well as states or provinces within the US and Canada. Consequently, low status individuals are motivated, consciously or not, to improve their status. Unions provide relatively marginalized individuals with one means among many to collectively raise their status. Unions also provide an alternative institution for individuals to raise their standing as leaders in the organization, within the workplace (by limiting the power of foremen), or on the picket lines (by showing physical courage).

When unions succeed, they are able to mobilize their members towards a common goal that no single worker could obtain on their own. Throughout the 1950s, ordinary steel workers, often with few marketable skills, enjoyed real wage increases that averaged 3% per year over and above inflation (Hinshaw, 2002; McCollough, 2000). This is not the norm for unskilled labor in modern labor markets. Between 1973 and 2007, the bottom quintile of workers enjoyed real wages increases of .3%; between 1973 and 1995, their wages simply stagnated (US Census Bureau, 2008). Steelworkers in the 1950s also won a steady expansion of their benefits, ranging from improved health care, pensions, vacations, and protections against layoffs or the arbitrary use of authority. Such gains came through collective action. For instance, in 1959, more than 500,000 steelworkers went on strike. There was no vote; their national president simply called them out when contract negotiations with steel companies broke down. There were no strike benefits either, and workers suffered genuine hardship in the midst of a severe recession. After 116 days, the government ordered them back to work for a ninety-day cooling off period. At the end of that period, the companies' supplies were restocked, and the government forced the union to vote on whether to resume the strike. Over 95% said yes, at which point, the steel companies gave in (Metzgar, 2000).

This strike suggests a number of factors that even non-evolutionary psychologists might appreciate. Individually, workers were weak in the face of some of the world's largest corporations. Yet once united, workers were so strong that companies did not even attempt to try to get workers to cross the picket lines. What held the strike together was both a sense of shared history (steelworkers had successfully struck several times before), but also the power of group processes such as obedience and conformity. Likewise, any steelworker in 1959 that seriously talked about crossing the picket line would have lost most of his friends and likely had to leave the area (Hanley, 1973). Yet labor history before and after 1959 is replete with examples where labor's solidarity does not hold.

When workers believe the company will win, most workers weigh their own and their family's interest against breaking with the union and go back to work. Humans are exquisitely sensitive to social context, and may exhibit rational self-interest or cooperative behavior depending on the particulars of the situation (Gintis, 2002). This was the case as late as 1937 at Republic Steel where a strike collapsed because of police violence, even though two other major steel strikes had been won just weeks before (Hinshaw, 2002). In other words, people are sensitive to the efficacy of strategies, and few will stick with one that is clearly failing or costly (e.g. Gintis, 2006). While a source of distress for trade unionists, this aspect of human nature helps explain how throughout our long history we have been able to adapt to such a range of environments. Our strategies are nothing if not responsive to our environments.

Unions are a cooperative effort, and consequently they have to wrestle with the problem that cooperation breaks down when it is not reciprocated. Cooperative strategies are not necessarily fragile (think of religion or trade as examples) but they are *contingent*; a cooperative strategy that worked in one environment or point in time may not continue to be effective.² Further, cooperation depends on identifying and discouraging cheaters

² From the 1850s to the 1930s, virtually every variety of trade union or political party sought to organize in steel. One is reminded of the ways that David Sloan Wilson in *Darwin's Cathedral* discusses religious variation over time; some ideologies succeeded when they were adaptive. In

or free riders. Behavioral economists such as Gintis (2005, 2006) have found that people generally begin by wishing to cooperate. But when faced with non-cooperators or free riders, cooperation dwindles away. Our cheater detection mechanisms are activated and we respond accordingly—by either punishing or refusing to cooperate (e.g. Stone, Cosmides, Tooby, Kroll, & Knight, 2002). Gintis (2006) finds that high levels of cooperation can be maintained when people are given the opportunity to punish cheaters or free riders, even though punishment imposes costs on those that undertake it. In other words, humans are not consistently rational and/or selfish actors. This kind of cooperation is easiest to sustain when people know they will interact again and again with each other. Small steel towns in the 1950s were ethnically diverse, but were stable; people knew each other from school, the neighborhood, and work. Consequently, unionism in the 1950s found ways to work its way into the local culture, becoming as natural as the Catholic churches, the VFW, the Knights of Columbus, and other examples of cooperation.

Evolutionists know from inclusive fitness theory that cooperation is much easier when it occurs between kin. Hamilton (1964) observed that altruism results from genetic relatedness times cost. The basics of this understanding were neatly summarized by the famous quip by Haldane (1955), stating that he would lay down his life for two brothers or eight cousins. From the 19th century onwards, steel companies often hired sons based on the father's reputation. In the 1950s, for instance, eight brothers (and more uncles) worked in the giant Homestead steel complex. As one black steelworker put it, "nepotism ran wild in the mill," acknowledging one aspect of kin selection, and how nepotism buttressed racial discrimination (Hinshaw, 2002, p. 213). In the non-union era, before 1937, nepotism (and the enormous power of corporations) helped to limit unionism. The company could fire not only one worker, but their families, and individuals calculated any potential cooperation with co-workers on that basis. However, the union developed numerous kinship cues through language and ritual. For instance, union members addressed each other as brother or sister. Those who crossed a picket line were scabs, not only not members of the family, but cheaters, and diseased ones at that (c.f. Pinker, 2007). Unions also developed shared rituals ranging from regular meetings and elections to sports teams, from awards banquets to contract negotiations with their employer. All of these rituals and activities emphasized a shared sense of purpose and the sharing of resources—of clan, if not family.

As a cooperative strategy, unions are invariably caught up in the dynamics of in-group preference. In 1959, steel companies did not even attempt to escort strikebreakers across the picket lines. Just twenty years before, steelworkers were deeply divided by ethnicity, language, occupation, and race—and had been so for decades (Hinshaw, 2002; Walker, 1946). From 1892 (when the last major steel union was crushed) to 1937 (when steel unionism reemerged), there were numerous strikes in the steel industry, and most were short, bloody and unsuccessful. For instance, in 1919, hundreds of thousands of workers joined what historians call the *Great Strike* and many at the time called the *Hunky strike* (for a derogatory term for immigrant). The vast majority of immigrants struck, but native-born workers, white and black, generally did not. Steel companies hired men to intimidate strikers; government troops set up machine guns in the streets. Police prohibited workers from meeting in public; even groups of three or more were

terms of labor's history, this was conscious cultural evolution, as every organization sought to find the right fit for the environment.

banned, so it was impossible to impose conformity on each other much less attempt to punish strike breakers.

Perhaps unsurprisingly, when unionism returned to steel, cooperation and altruism followed ethnic lines. The historian James Rose (2001) found that in the 1930s, two distinct kinds of organizations emerged in a mill owned by U.S. Steel in Duquesne, Pennsylvania. Those workers who were older, more skilled, and more likely to have been native-born joined the recently formed *company union*. Workers who were younger, less skilled and either immigrants, the children of immigrants, or African Americans joined another organization. Both groups joined the same union after 1937, but the pattern of previous loyalties played itself out over the years as members from one faction generally supported each other or vied for power over the members of the other group. This suggests that trade unionists, like soldiers, are loyal less to abstract principles (“solidarity forever”) or politics (“the working class”), than to specific people or groups. They also seek to raise their own status by winning positions of authority. While Rose did not use an evolutionary framework, he found that steelworkers’ loyalty ran to members of their group, often demarcated by ethnicity, occupation, and ideology (Rose, 2001).³

This pattern of in-group bias can be broadly applied by labor historians. Most of the earliest unions in the US formed out of social groups that had already formed, such as members of a single occupation. Other unions (such as in the needle trades) formed out of ethnic groups that dominated an economic niche such as female Jewish glove makers in early twentieth century New York City. However, American trade unionists have always sought to build unions in a society that is relatively large scale, rapidly growing, and ethnically and racially diverse. Consequently, familiar in-group symbols are often lacking and need to be developed. It is for this reason that reformers in the late 19th century developed new symbols of American nationhood such as the pledge of allegiance to reinforce new in-group loyalties for immigrants and native-born alike (Webber, 2003). New identities can be developed, whether that of being an American or a trade unionist, but it is a truism that the in-groups already formed around language, religion or race complicate new loyalties. Historically American unionists have confronted an especially diverse, (that is to say challenging), social environment. Even today, in both Europe and the US, public support for social welfare spending drops when individuals feel that it does not benefit members of their own ethnic group. This is as true in Sweden as in Mississippi and helps explain some of the political pressure on welfare state policies (Porter, 2007).

When driven to do so by necessity, unions can and do expand (or seek to expand) who is a member of the in-group. Members of the same occupation, but not the same workplace, had to learn to see members throughout a city, region, and country as “brothers” or “sisters.” Eventually unions struggled with how—or whether—to incorporate workers from different trades, or religious, racial or ethnic groups. Thus the question of who is in the out group is both important and fungible.

Is there any precedent for the form of cooperation that unions represent? Is there some aspect of humanity’s evolved cognitive architecture arising from what historians

³ Union members often vie with each other for leadership, forming and reforming coalitions often along lines of ethnicity or occupation (or both). Within the United Auto Workers in the 1960s, skilled conservative whites supported the social democratic leader of the union (Walter Reuther) against black members stuck in unskilled positions. (Georgakas, 1975)

would term “pre-history” (the five thousand generations between the origins of biologically modern humans and behaviorally modern ones)? In short, yes. Human history prior to the Neolithic revolution is replete with examples of cooperation, for instance, hunting. Depending on the prey, many forms of hunting are more effective when done in groups. Furthermore, in virtually all hunting and gathering societies even the results of individual effort are shared with other members of the group. Evolutionists often explain this cooperation through the concept of reciprocal altruism, in that sharing was a form of insurance against the inevitable day when individual efforts failed. Hunting was typically, although not exclusively, a male strategy. However, another common cooperative venture, warfare, was an exclusively male activity. If successful, all members of the group would benefit, but the costs for cooperation were high; consequently, many individuals cheated, weighing the costs of social punishment against the loss of life or limb. For instance, the anthropologist Napoleon Chagnon found that when a group of Yanomamo went off to war, several individuals came back early complaining of illness or injury that prevented them from fighting (Chagnon, 1983).

We would argue that unions are an example of a cooperative coalition. Until relatively recently, labor has been *primarily* a male organization or strategy. Ninety-eight percent of steelworkers in 1959 were male, although this was the result of hiring practices; those women who were hired also joined the union (Hinshaw, 2002). Around 1900, men were three times more likely than women to be members of unions. In terms of leadership, however, male bias is well known to labor historians. For instance, in the 1920s, women made up 85% of the International Lady Garment Workers’ Union, but comprised about 5% of its leadership. In the 1920s, women made up about five percent of the leadership positions, as reported by the 1925 edition of *Who’s Who in Labor*. By 1976, women were around a third of union membership, but a new edition of *Who’s Who in Labor* indicated that less than 10% of leaders were female. It is possible that unions build on the evolved architecture of hunting and warfare, which by necessity develops high levels of in-group altruism, what labor historians would term solidarity, to outcompete other groups.

Given the nature of human dynamics, on their own, people will generally compete against those at or below them in the social hierarchy. This tendency is especially pronounced when those others are members of a socially, linguistically, or phenotypically distinct group (e.g. Alesina & Glaeser, 2004). Most steel unions in the 19th century barred blacks from membership, and scholars have documented how even in the far more inclusive unions of the 20th century, blacks were marginalized (Hinshaw, 2002). Many historians have documented how Irish immigrants successfully limited black entry into northern 19th century labor markets by voting for the then openly white supremacist Democratic Party, denigrating blacks through minstrel music and vaudeville, and rioting against them (Roediger, 1999). For instance, the California Workingmen’s Party of the late 19th century argued successfully for limiting Chinese immigration (Saxton, 1991). The social history of the working class is replete with such studies. Historians are aware of these examples as aspects of working-class history, but this is not due to the nature of workers, nor even Americans, although American working-class historians may be forgiven for knowing the most about the history closest to hand. Human history, and labor history, has many such examples of this kind of tribal thinking where enemies are defined laterally—a weaker group, tribe or nation (e.g. Berreby, 2005). But unions are a unique form of cooperative coalition, as far as we know, in that they also, if not chiefly, define opponents *vertically*, that is the class above them.

As noted above, historians often find that unions contradict their principles when it comes to who leads the union. Unions use egalitarian rhetoric (united against the bosses, the out group) but are often strikingly hierarchical. Recall that the Steelworkers' president simply ordered his members out on strike in 1959. Steelworkers followed him, backing him strongly when the time came. Knowing how *us-them* thinking works, this kind of loyalty to one of "us" in the midst of a tough contract fight is hardly surprising. And five years later, steelworkers voted the incumbent out of office, replacing him with another man who promised a series of democratic reforms (reference). Thus, humans are sensitive to hierarchies, to their position in them, and to their leaders. While hunters and gatherers limited the power of leaders, through what anthropologists term *guarded egalitarianism*, there is also evidence that our nature predisposes us to be relatively deferential to leaders. In the United Mine Workers of the 1920s, factions of trade unionists fought with ballots, blackjacks and bullets for the control of the union. Yet the same union, in subsequent decades, enjoyed decades of rule by a powerful figure, John L. Lewis, whose stature, oratory, and appetites were larger than life. The face of Lewis dominates the walls of the UMW headquarters to this day. Not surprisingly, just as tribalism is a fact of life within unions, so generally is stability of leadership—in both conservative and radical unions. Even if the evolved mental architecture is the same in all people, how it is expressed varies enormously. For instance, there are worlds of difference between the union culture of the UMW or the Chemical Workers and the American Federation of Teachers.

Even the history of unions since the mid-20th century, when unions declined in membership (and ultimately in power), can be understood within this framework of our evolved cognitive architecture. Unions represent a cooperative strategy, but one that arose under specific conditions. Throughout the world, as individuals become wealthier, they shift from collectivist to individual strategies. Moreover, there are data that suggests that as societies become more economically unequal, citizens become more cynical about the efficacy of voting and government. Likewise, the greater the economic inequality, the more that individuals distrust strangers (Wilkinson, 2006). In the 1940's, American workers became more affluent, and the physical makeup of society became increasingly atomized (automobiles versus streetcars; suburbs and exurbs rather than mill towns or urban neighborhoods). Moreover, American workers are not spending their lives within the same workplaces, where social networks and hierarchies are familiar, or in stable neighborhoods. The result is that across the board, community, what some sociologists term social capital, is weaker (Putnam, 2007). Consequently, individualistic strategies became less costly, and cooperative ones, especially union ones, became less effective.

Furthermore, during and after the 1970s, business organizations successfully lobbied to change the legal terrain upon which unions operated. The short-hand event for this complex set of laws and regulations is "PATCO," which was the acronym for the union whose members President Ronald Reagan fired when they went on strike and for whom he then hired permanent replacements. Ironically, PATCO had endorsed Reagan for President. With the government setting the pattern, corporations followed suit. One study found that around 20% of workers (invariably the staunchest advocates of unions) are fired during union drives thus raising the cost of altruism and cooperation (Schmitt, 2007). Approximately 18% of all union campaigns in the private sector result in workers being fired (Bronfenbrenner & Juravich, 1994). As with many myths, the idea that Reagan set all this in motion is untrue. Before the early 1970s, labor law allowed unions to "try" their members before courts of workers (for breaking its rules by doing things

like crossing picket lines), fine them, and then require employers to collect the fine. In the early 1970s, the courts disallowed such actions. Consequently, even when union members cross their own picket lines (as many do during strikes today), there is no way for them to be punished. When cheaters cannot be punished, cooperation dwindles away.⁴

In short, by the early 1980s, business groups out organized labor organizations and changed the rules of the game (laws, regulations, economics, and ideology) that made it harder for unions to form or be effective. Today, just over half of workers say they would join a union, but levels of unionization as low or lower than at the turn of the twentieth century (Greenhouse, 2002). Ever sensitive to the efficacy of strategies, workers could turn to individual efforts (working longer, relocating to a new region, finding a better job) to provide for themselves and their family. Furthermore, unions are not the only form of status hierarchies that exist, and workers could join any others that promise a lower-cost means to improve their social status.

Hopefully this necessarily abbreviated overview of evolutionary psychology shows that the approach can be fruitfully incorporated into social history. It can interpret important events and processes as well as the SSSM. The next sections will continue along that path, and also indicate that because of evolution's power as a theory, it can suggest new lines of research with some predictive power.

A Darwinian Approach to American Labor's Early History

The first occurrence of strikes and unions in the US occurred roughly around the American Revolution, followed shortly thereafter by the formation of unions in Philadelphia and New York. Soon thereafter, unions appear in specific trades or crafts such as printers and shoemakers. Until this time, the traditional path for skilled artisans was from apprentice, to journeymen, to master, which derived from the European guild system. Those that had mastered all the aspects of a trade developed organizations that defended the interests of the craft by limiting numbers of competitors and ensuring some control over the levels of skill of their members. Masters regulated this cooperative coalition, and production of goods, by maintaining control over their extended family. Masters took apprentices under their wing and roof, teaching them what they knew and regulating their behavior as a surrogate father. After finishing their apprentice years, journeymen journeyed between the houses/shops of different masters. This system began to fall apart in the US under the democratic pressures following the American Revolution, when that journeymen and apprentices challenged the patriarchal authority of the masters. The other factor was that rising immigration and that the strengthening logic and practice of capitalism made it cheaper for masters to simply hire journeymen as day workers, and subdivide the tasks, not train workers to take over every aspect of production.

Thus the first unions were craft unions, and could be easily interpreted as an emerging cooperative coalition of younger males seeking to dislodge the authority of older masters. Another factor that shaped the priorities of unions stemmed from the reproductive goals of journeymen. The traditional guild system delayed journeymen's marriages. Journeymen lived and worked under a tradition of the male-headed household, working

⁴ (NLRB v. Allis-Chalmers Manufacturing Company, 1967), (CIO v NLRB, 1972) (NLRB v OIL, CHEMICAL AND ATOMIC WORKERS INTERNATIONAL UNION, LOCAL 6-578, AFL-CIO, 1980) (NLRB v. GRANITE STATE JOINT BOARD, TEXTILE WORKERS UNION OF AMERICA, 1971)

to accumulate sufficient resources to marry and begin their own households (Greenberg, 2007). In the early 19th century, journeymen became permanent wage earners, but also family men, and their newfound reproductive status was undermined by the fact that wages remained stagnant, while prices of rents and other goods rose rapidly. Early unionists were notoriously assertive in advocating republican democratic rights as laborers (for instance, advocating for public education and the right of all males to vote) and in attempting to keep women out of the workplace and in the domestic sphere (Stansell, 1987).

Historians acknowledge that gender issues were central to the labor movement. Many 19th century unions prohibited women as members (and often blacks, and later the Chinese). Much has been made of this hostility, and deservedly so. The issue is not whether it existed, but *why* it did. Most scholars conclude that the early labor movement contradicted its own egalitarian philosophy by restricting women's participation in it (or by seeking to limit women's participation in the labor market). Scholars conclude that workers failed to challenge the emerging bourgeois cult of domesticity or that they failed to internalize their own egalitarian ideology and use it to overcome their patriarchy. However, historians' explanations for the hostility or indifference to women as members of labor organizations are descriptive and proximate in nature. Interestingly, many scholars (and not a few female activists) understood that female workers also believed in what we'd today call traditional gender roles, much to the frustration of female activists. Put into Marxist terminology, both female and male workers showed signs of false consciousness.

On these issues, a Darwinian approach would provide a clear explanatory vehicle. When they could afford to do so, individual men sought to restrict their mates' or daughters' forays into the paid labor market. Nineteenth century cities were far more dirty and dangerous than cities today. In big cities such as New York, tenement housing was extremely cramped and crowded. Because there were enormous economic inequalities between men, and between men and women, the potential for rape or dalliances, what evolutionists would term extra pair couplings, was constant and real (Stansell, 1987). The labor movement's advocacy that they too should be able to replicate the middle class experience of establishing nuclear families with a male breadwinner and a female safely ensconced in the home is not just succumbing to the allure of middle class ideology nor simply directed against economically independent women (although it was also that).⁵ Cities and towns were mushrooming just as class differences exploded. Journeymen sought the nuclear family, as the alternative was not modern two-income nuclear families, but rather de facto harems controlled by powerful or wealthier men. For many unionists, the goal of a single breadwinner was aspirational; for most of the nineteenth and even 20th century the norm was that children worked and their moneys went to the family. However, it is instructive that the vast majority of male and female unionists, decade after decade, argued that mothers should not work. The evolved emotional architecture of both men and women in the emerging urban-industrial setting offers a clearer explanation for why men and women did not want young women or mothers to participate in the labor market.

⁵ It should be noted that enormous amounts of domestic labor was needed in the home as housework had not yet been industrialized, and hauling wood and water consumed alone consumed two to three hours of labor a day.

A few unions in the 19th and early 20th century had appreciable numbers of female members, notably the “needle trades,” the Knights of Labor in the 1880s, the American Federation of Teachers, and the telephone operators unions within the IBEW of the 1910s. (notably, the Knights were the most inclusive organization; and the shortest-lasting). During WWII, there were more women in industrial jobs, and women became represented in more and more unions. Even relatively conservative unions such as the Steelworkers advocated that women should be paid the same rate for the same work. Liberal or left-led unions (such as the UAW and UE respectively) created “Women’s Departments” and pushed for company or government paid day care (Milkman, 1987, p. 58). But the criticism of women in male-dominated workplaces came not just from politically backward male workers, but also from the wives of workers. During WWII (and thereafter), at least in the steel industry, which we know best, women were often asking “who are these women in the workplace?” “What exactly do they want there (and what will our husbands want with them)?” One suspects they knew the answer to the last question. The SSSM does not explain that reaction well, except to fault unions for failing to raise the consciousness of trade unionists and their families. However, the concern for what evolutionists would term *mate guarding*, either on the part of workers or their spouses would help shape the parameters of debate over sexually integrated workplaces and unions down through the years.

Labor historians have noted that even in unions with a sizeable female membership the leaders, whether elected or appointed, were overwhelmingly male. The largest of these was the International Lady Garment Workers Union, which had about 300,000 members in the 1920s. About 85% were female; however, the vast majority of elected and appointed leaders (organizers, staff members) were male. Even as late as 1976, 90% of the leaders from that union listed in “Who’s Who in Labor” were male. During WWII, 40% of the United Electrical workers were female, but the vast majority of its officials were men. The ILGWU (the International Lady Garment Workers) were relatively conservative Socialists; the UE were radicals and communists. The most common explanation for the dearth of female activists and leaders is the hostility of men. That is true enough, but not a sufficient explanation. After all, how likely is it that in a union that is 85% female, women could not have wrested positions from men? One would expect men (just like members of an ethnic group) to resist relinquishing positions and jobs that were relatively high status and high pay. Perhaps women could have won these positions had they desperately wanted them. But what would they have gained had they won? What kind of advantages would these jobs have afforded female leaders? What it would have cost them? After posing that question, we decided to examine the pattern of female leadership in terms of its costs and benefits to women’s reproductive fitness and overall health.

The Mother Jones Syndrome

The assumption of historians has generally been that leadership positions were desirable. That is a reasonable assumption, as these were jobs that allowed relatively high status, and depending on the union and its circumstances, higher pay than workers received. One might imagine that women would find them a means to provide resources for their children and kin. However, other factors worked against women. The nature of these organizations means that they are dominated by men, and until the 1940s, these were relatively unstable. These jobs often require women to either show leadership or dominance by becoming elected leaders, and that status often followed long hours of organizing and/or travel. Not unlike getting tenure at a research university, such

investments must be made at the beginning of the trade unionists' life, precisely when women are most fertile. Such pressures were even more acute before working-class longevity began to lengthen in the twentieth century. Given the reproductive strategies of women- who have fewer opportunities to reproduce and make a disproportionate investment in children- and men's often hostile response, women might have to balance their desire to become mothers against becoming labor leaders. Indeed, this seems to be the case.

The most famous female labor activist of the late 19th and early 20th century, Mary "Mother" Jones, became an organizer only after her family died. By her own account, she was 50 (and her family dead) when she had become a full-time labor activist. Ten years later she became a paid organizer for the United Mine Workers of America (Jones, 1925). To the disappointment of generations of labor historians, she did not challenge traditional gender roles. She opposed female enfranchisement (as a bourgeois distraction from workers' struggles) and while she organized women to support unions, she believed a good union wage would allow them to stay in the home. Indeed, to the extent women had a role in the unions; it was because of their status as wives and mothers (Gorn, 2001). Apparently, Mother Jones functioned as something of a template for female labor activists in that the vast majority of female leaders remained childless.

The biographies of female labor activists in the nineteenth and early twentieth centuries supports the notion that the costs that their participation in leadership positions had on their reproductive strategies were staggeringly high. Of the thirty or so labor leaders listed in *Notable American Women, 1607-1950*, or subsequent editions, roughly one in three had children.⁶ Of those ten or so that did have children, four of them quit work once their children were born, or only went to work after their first husband died (and then ceased paid work after they remarried). For instance, L. Barry was elected the "Master Workman" of a New York section of the Knights of Labor in 1884. Barry was a widow and the demands of her office required her to leave her children in a convent or with her husband's family. Evolutionists will not be surprised that she was quite sensitive to her reputation, refusing to lobby the Pennsylvania legislature for a law requiring factory inspections as it would be unladylike to do so. When she remarried in 1890, she quit, saying that women should only have a job if necessity required it. Another activist in the Knights of Labor, E. Rodgers, turned down a nomination for the national office of Master Workmen citing the demands of ten children on her life. Yet another Knight, M. K. O'Sullivan, remained active despite her four children because her husband encouraged her to do so, this had also been the case with Rodgers.

Other women quit activism when they married (for example, D. Bellane and A. Troupe). The case of Troupe is suggestive that women may have found the price of leadership more than they were willing to pay. The members of the Typographical union refused to allow women to join the organization, but elected her, an exceptionally able typesetter and fierce union advocate to a key position in the national organization. She was just 22. By 26, she married, and ultimately had seven children. Upon her marriage she abandoned paid work, although she married an advocate of labor cooperation and she penned many pro-labor articles in his newspaper.

⁶ Other occupations also had high childless rates. For instance, about half of female entrepreneurs and historians who died before 1950 were childless. This will be the subject of future research.

Most women who stayed in the union movement their entire working lives never had children or were never (or briefly) married. Such women include J. Collins, M. Haley, A. Nester, and A. Stevens. M. Swatz was briefly married, but had no children, and as a Catholic, never divorced or remarried. L. O'Reilly suggests that the women who chose activism were non-conventional; she adopted a child at 37, and her family included not only her mother, but an unmarried man and a "Hindu widow." Two of the three women who had children and continued to work were unconventional in the sense that they were activists in the Communist Party. Other women who had children but remained labor leaders had to put their children into boarding schools, leave them with family members, etc. In other words, it appears that labor activism was a relatively costly one in terms of women's reproduction strategies.

For these pioneer female labor activists, the union may have become a substitute family. These women were remarkable pioneers. But it seems reasonable to ask how many women were willing to pay such a price. It seems unreasonable, even sexist, to assume that in unions where women made up a sizeable proportion of the membership, such as the ILGW or the Teachers, women could not have been elected to offices if they were determined to do so. In other words, it is possible that many working class women opted out of the struggle for leadership in unions as too costly. This makes good sense of the qualitative data on female pioneers of the labor movement who decried the patriarchal attitudes of women and the "timidity" of other women. In other words, feminists blazed a trail that other women did not necessarily follow.

Furthermore, attributes such as youth and physical beauty that serve to provide women power in mating markets would likely be disastrous or divisive in the context of a cooperative coalition. Even if such women were clearly allied with a man, it is likely that other women (wives of men in the alliance), to say nothing of other men, would find their presence distracting. Whether we like it or not, the "Mother Jones" syndrome, the result of both female and male calculations, defined the role of women in the labor movement for one hundred and fifty years.

Illustrative Data: The Costs of Altruism

To examine these possibilities further, we built a database of biographies of male and female trade unionists members and leaders from the local and national level based on materials from published biographies and obituaries. Data on family (survivors, marriage, children) were included, and where possible, the length of life. The unions included ones with large numbers of women members (the ILGWU, the Teachers' unions, the Nurses, the UE, as well as some traditionally male organizations (the Steelworkers and Service Workers). National leaders excluded staff members. The final N for the database was 583 (385 women and 198 men). However, complete data for age of death were available for only 424 of those individuals.

In terms of the biographies collected from biographies and obituaries of union members, two interesting patterns emerge. The first is that what we term the "Mother Jones syndrome" was not an anomaly of the *Biography of Notable American Women* but remained statistically significant even when more women's lives were analyzed. See Table 1 for a summary. Elected leaders at both the national and local levels were significantly less likely to have children, or to have fewer children, than union members, $F(3,575) = 3.38, p = .018$. Furthermore, there was an interaction of sex by leadership position, whereby men had more children than women in every category of leadership, but the differences were greatest at the national leadership level, $F(3,575) = 3.09, p = .027$.

Table 1
Number of Children as a Function of Leadership Status and Sex

Union Leadership Status	Females (N=385)		Males (N= 198)	
	Mean	SD	Mean	SD
Members	2.35	.995	2.82	.925
Local union leaders	1.74	1.004	2.72	1.039
National union leaders	1.56	.968	2.81	.946
Others	2.05	1.175	2.61	1.123

The second finding is that local union leaders suffered a substantial loss of longevity as compared to both union members and national union officials, $F(2,414) = 4.92, p = .002$. For example, male local leaders lived nine years less than members, and ten years less than national leaders. Female local leaders lived about 6.5 years less than national leaders. Data are summarized in Table 2.

Table 2
Age of Death by Status and Sex

Union Leadership Status	Females (N=217)		Males (N= 205)	
	Mean	SD	Mean	SD
Members	----	----	76.16	14.22
Local union leaders	72.61	14.48	66.93	18.03
National union leaders	79.25	11.80	76.76	9.43
Others	73.80	13.56	76.02	15.71

Local leaders apparently paid a high cost for their activism (or what Herbert Gintis would term their engaging in altruistic punishment). These were the sparkplug unionists, the hard cases, or the heart attacks waiting to happen, who kept the union alive. When someone was fired, they were the ones that workers approached to solve the problem. They were the men and women who negotiated the contracts with companies, who attempted to resolve grievances. They were often the bearers of bad news. They were often in battle mode. As Wilkinson (2006) indicates, constant stress, feeling embattled, is not conducive to longevity. It is possible too that the stress of local leadership came from knowing the individuals that you are defending or battling, and having to see them constantly. There is much that this data does not tell us, but it allows us to approximate the costs of altruism.

In terms of family formation and longevity, becoming a local union leader, the first step towards national leadership, was costly. Fewer children can be a sign of many things, such as an indication to invest in quality rather than quantity. Not having children can also be the result of individual decisions, or self selection (those less likely to want children may have become leaders). It can also be the pressures of the job; functioning as

a leader is time consuming and emotionally exhausting. It is likely that male leaders were able to show their fitness as leaders and have their wives care for their children or form families later in life. Whatever the precise cause for the situation that female leaders were so often childless (the pressures of the job, self selection), it is worth emphasizing that this reality would be a powerful disincentive for most women to assume leadership roles.

Women leaders paid a high price, in terms of eschewing children and dying a decade earlier than their counterparts. Men may not have paid a significant cost in terms of reproduction (as smaller families may have been a decision to invest intensively in smaller number of children). Perhaps it should not surprise us that many women (and men) were reluctant to assume those roles.

We are making a case for an evolutionary approach to history in that the evolved physiological and psychological dimensions of workers can be viewed, and should be viewed, as playing an important role in labor history. We are not arguing that women could not or should not have become leaders, or that those who did become leaders were better or worse than those who stayed members. But we are suggesting that there is a *significant cost* to being a leader, especially so at the local level. That cost results from our evolved biology and psychology (our likely reproductive strategies and how we respond to stress). We are further suggesting that union members, being responsive to the costs as well as benefits of strategies (even if unconsciously), may have allowed others to bear the costs of altruism. Personally, those leaders that bore the costs of altruism deserve our respect and admiration, but also an acknowledgement that it comes at a high cost.

Lastly, this line of research, which as far as we know is novel in labor history, was the result of delving into the literature on evolution. It is quite possible that union members lived longer than non-union members, that there were significant variations by industry (service workers perhaps lived shorter lives than auto workers, etc). Surely there are numerous lines of inquiry that can be opened up (and answered) by working with the tools that evolution affords us.

Conclusion

The findings and approaches we describe present both a challenge and an opportunity for historians. As David Lord Smail (2007) has argued, much of what we have assumed to be true about human nature rests upon a deeply flawed folk psychology that has long been abandoned elsewhere in academe after findings by neuroscientists, biologists, and psychologists. Furthermore, we share a deep resistance to biological or genetic determinism, believing it to be inherently supportive of social inequalities, racism, etc. Yet those of us with two children have some understanding of the power of genetic inheritance. Despite our best efforts to treat each child the same, each of them develops along a path shaped more by their own temperament, and the world of their peers, rather than our own determined efforts to socialize them. It should also be reasonably clear from this essay that a social history built along Darwinian lines is not a call for a modern day Social Darwinism. Nor is a call for historians to consider how to engage in evolutionary history an attempt to legitimize discrimination, eugenics or racism. It is a challenge, however, for us to shake off some of our old habits of mind.

Evolution is an inherently historical framework; it is powerful enough to organize the mind boggling amount of knowledge about the history of the natural world. It would be more than strange that evolution would explain the wonders of natural history, including our hominid ancestors, but have no relevance for humanity itself. It

would be stranger still to acknowledge, as most historians do, that evolution and not creation science applies to humans, our bipedalism, our opposable thumbs and other physical features., but not to our brains. Stranger still if we accepted that evolution applies to our brains, but ceases to have any relevance in the world created by those brains, backs and thumbs since the Neolithic revolution.

If historians have much to learn from them, we also have wisdom and skills to share. Labor historians have long emphasized community studies, and rightfully so. We know a great deal about the world of the worker, from mining villages, company towns, immigrant urban neighborhoods to slave plantations. We have a good sense for the wide variety of workers' strategies within the various environments, and how they changed over time. If our sense of science has been lacking, our attention to environmental or social context is well attuned. Our emphasis on agency and contingency is overplayed, but if put within the evolutionary framework, we can understand the most likely or dominant responses, and parse out what were truly the most exceptional cases. Perhaps Smail is right when he argues that evolutionary psychology is too prone to presentism. But how can we set it right if we do not engage with it at all?

This is not a call for unilateral disarmament in the face of a wicked and ruthless foe, but a call for collaboration with kindred spirits. The debates amongst evolutionists, between those advocating "group selection" versus "inclusive fitness" in explaining social phenomena such as cooperation and altruism, are infinitely more interesting and useful than our entrenched defenses against biological determinism. The shock of the new will be considerable, but we have infinitely more to gain than to lose. A history of humanity written by evolutionists is inevitable; the only question is whether historians will help to write it.

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